

SCH No. 2002101020 | September 2014

ORANGE COUNTY GREAT PARK AND ENVIRONMENTAL IMPACT REPORT FOR THE HERITAGE FIELDS K-8 #1

for Irvine Unified School District

Prepared for:

Irvine Unified School District

Contact: Dana Grudem, Facilities Planning Supervisor
100 Nightmist
Irvine, California 92618
949.936.5327

Prepared by:

PlaceWorks

Contact: Dwayne Mears, AICP
Principal, School Facilities Planning
3 MacArthur Place, Suite 1100
Santa Ana, California 92707
714.966.9220
info@placeworks.com
www.placeworks.com



Table of Contents

Section	Page
1. INTRODUCTION.....	1
1.1 BACKGROUND, PURPOSE, AND SCOPE.....	1
1.2 PROJECT SUMMARY	2
1.3 ENVIRONMENTAL PROCEDURES	2
1.4 PREVIOUS ENVIRONMENTAL DOCUMENTATION.....	4
2. ENVIRONMENTAL SETTING	11
2.1 PROJECT LOCATION	11
2.2 ENVIRONMENTAL SETTING.....	11
3. PROJECT DESCRIPTION.....	23
3.1 PROJECT DESCRIPTION.....	23
4. ENVIRONMENTAL CHECKLIST	27
4.1 BACKGROUND.....	27
4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED	28
4.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY).....	29
4.4 EVALUATION OF ENVIRONMENTAL IMPACTS	30
5. ENVIRONMENTAL ANALYSIS	33
5.1 AESTHETICS	33
5.2 AGRICULTURE AND FOREST RESOURCES	36
5.3 AIR-QUALITY	39
5.4 BIOLOGICAL RESOURCES	51
5.5 CULTURAL RESOURCES	54
5.6 GEOLOGY AND SOILS.....	57
5.7 GREENHOUSE GAS EMISSIONS.....	60
5.8 HAZARDS AND HAZARDOUS MATERIALS	66
5.9 HYDROLOGY AND WATER QUALITY	74
5.10 LAND USE AND PLANNING	80
5.11 MINERAL RESOURCES.....	83
5.12 NOISE.....	84
5.13 POPULATION AND HOUSING	98
5.14 PUBLIC SERVICES.....	100
5.15 RECREATION	107
5.16 TRANSPORTATION/TRAFFIC.....	109
5.17 UTILITIES AND SERVICE SYSTEMS	147
5.18 MANDATORY FINDINGS OF SIGNIFICANCE	156
6. LIST OF PREPARERS	159
7. REFERENCES.....	161

Table of Contents

APPENDICES

Appendix A	Air-quality and Greenhouse Gas Emission Data
Appendix B	Geologic and Environmental Hazard Assessment Report
Appendix C	Exterior Noise Analysis
Appendix D	Traffic Analysis Report

List of Figures

Figure		Page
Figure 1	Regional Location	13
Figure 2	Planning Areas.....	15
Figure 3	Development District Map	17
Figure 4	Local Vicinity.....	19
Figure 5	Aerial Photograph.....	21
Figure 6	Proposed Site Plan.....	25
Figure 7	Year 2017 Intersection Geometry and Control	113
Figure 8a	Year 2017 AM Peak Hour Volumes with Project (1 of 2)	121
Figure 8b	Year 2017 AM Peak Hour Volumes with Project (2 of 2)	123
Figure 9	Year 2030 and Post-2030 Intersection Geometry and Control.....	125
Figure 10a	Year 2030 AM Peak Hour Volumes with Project (1 of 2)	127
Figure 10b	Year 2030 AM Peak Hour Volumes with Project (2 of 2)	129
Figure 11a	Post-2030 AM Peak Hour Volumes with Project (1 of 2)	133
Figure 11b	Post-2030 AM Peak Hour Volumes with Project (2 of 2)	135

List of Tables

Table		Page
Table 1	Ambient Air Quality Standards for Criteria Pollutants.....	39
Table 2	Maximum Daily Regional Construction Emissions with Mitigation Measures Included in the Approved Project.....	44
Table 3	Maximum Daily Regional Operational Phase Emissions.....	46
Table 4	Construction Emissions Compared to SCAQMD's Screening-Level LSTs with Mitigation Measures Included in the Approved Project.....	47
Table 5	GHG Emissions Inventory.....	64
Table 6	State of California Land Use Compatibility for Exterior Community Noise	85
Table 7	City of Irvine Interior and Exterior Noise Standards	86
Table 8	City of Irvine Exterior Noise Standards by Noise Zone.....	87
Table 9	2017 Traffic Noise Levels and Project-Related Contributions	93

Table of Contents

Table 10	2030 Traffic Noise Levels and Project-Related Contributions	94
Table 11	Post-2030 Traffic Noise Levels and Project-Related Contributions	95
Table 12	OCFA Responding Stations	106
Table 13	Year 2014 ADT Volumes—No Project	110
Table 14	Level of Service Description	115
Table 15	Project ITE Trip Generation	118
Table 16	Trip Distribution Assumptions	118
Table 17	Year 2017 AM Peak Hour Intersection LOS Comparison	119
Table 18	Year 2030 Deficient Arterial Segment	120
Table 19	Year 2030 AM Peak Hour Intersection LOS Comparison	131
Table 20	Post-2030 Deficient Arterial Segment	132
Table 21	Post-2030 AM Peak Hour Intersection LOS Comparison	137
Table 22	MUTCD Signal Warrants	138
Table 23	Sight Distance Minimum Standards—Project Intersections	138
Table 24	Other IUSD K-8 School Parking Ratios	139
Table 25	OCWR Landfills	149

Table of Contents

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
ADT	average daily traffic
APA	American Planning Association
AQMP	air quality management plan
ARDA	Amended and Restated Development Agreement
AST	aboveground storage tank
BMP	best management practices
BRAC	Base Realignment and Closure
C&D	construction and demolition
CAA	Clean Air Act
CAFE	corporate average fuel economy
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CC&Rs	Covenants, Conditions and Restrictions
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Levels
CMP	congestion management program
CO	carbon monoxide
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
CPUC	California Public Utilities Commission
DAMP	drainage area management plan
DB	decibel
DSA	Division of the State Architect

Table of Contents

DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	Environmental Protection Agency (US)
FAA	Federal Aviation Administration
FEIR	final environmental impact report
FEMA	Federal Emergency Management Agency
FIRM	flood insurance rate map
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gases
gpm	gallons per minute
HCP	habitat conservation plan
hp	horsepower
IBC	Irvine Business Complex
ICU	intersection capacity utilization
IPCC	Intergovernmental Panel on Climate Change
IPD	Irvine Police Department
IRA	Identified Resource Area
IRP	Installation Restoration Program
IRWD	Irvine Ranch Water District
ITAM	City of Irvine Traffic Model
ITE	Institute of Transportation Engineers
ITEMS	Irvine Traffic Engineering System
IUSD	Irvine Unified School District
LCFS	low-carbon fuel standard
LLD	Lifelong Learning District
LOMR	Letter of Map Revision
LOS	level of service
LST	localized significance thresholds
MCAS	Marine Corps Air Station
mgd	million gallons per day
MLTP	Master Landscape and Trails Plan
MMRP	mitigation monitoring and reporting program
MPAH	Master Plan of Arterial Highways

Table of Contents

MPO	metropolitan planning organization
MRZ	mineral recovery zone
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
MWRP	Michelson Wastewater Reclamation Plant
NCCP	natural communities conservation plan
NITM	North Irvine Transportation Mitigation Program
NOI	Notice of Intent
NOX	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O3	ozone
OCCOG	Orange County Council of Governments
OCFA	Orange County Fire Authority
OCGP	Orange County Great Park
OCGPPA	Orange County Great Park Project Area
OCHCA	Orange County Health Care Agency
OSHA	Occupational Safety and Health Administration (US)
PA	planning area
PDF	project design feature
PEA	preliminary environmental assessment
ppd	pounds per day
ppm	parts per million
PPP	plans, programs, or policies
PVC	polyvinyl chloride
RPS	renewable portfolio standard
RTOR	right-turn-on-red
RTP	regional transportation plan
RWQCB	regional water quality control board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

Table of Contents

SCE	Southern California Edison
SCRRA	Southern California Regional Rail Authority
SCS	sustainable communities strategy
SEIR	Supplemental EIR
SMARA	Surface Mining and Reclamation Act
SoCAB	South Coast Air Basin
SRA	seismic response area
SRO	School Resources Officers
SSEIR	Second Supplemental Environmental Impact Report
SWP	State Water Project
SWPPP	stormwater pollution prevention plan
SZ	scientific resource zone
TMA	Transportation Management Association
TMDL	total maximum daily load
TMP	Transportation Management Plan
TOD	transit-oriented development
TPM	tentative parcel map
TTM	tentative tract map
TTOD	Trails and Transit Oriented Development
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity ratio
VMT	vehicle miles traveled
VOC	volatile organic compounds
VT*TM	vesting tentative tract map
WQMP	water quality management plan
WRMP	water resources master plan
WSA	water supply assessment
WTE	waste to energy

Table of Contents

This page intentionally left blank.

1. Introduction

1.1 BACKGROUND, PURPOSE, AND SCOPE

In 2003, the City of Irvine (“City”) certified the Final Environmental Impact Report for the Orange County Great Park, SCH No. 2002101020, dated May 27, 2003 (“2003 EIR”), which analyzed the environmental effects of the development of 3,625 residential units and 6,585,594 square feet of nonresidential uses on the former MCAS El Toro site. Subsequently, the City prepared and the City Council approved seven addenda to the 2003 EIR (“Addenda”), which analyzed subsequent revisions to the project that had been analyzed in 2003 EIR. In 2008, the City granted the project applicant 1,269 density bonus units pursuant to state law. Therefore, as of that time, the approved project consisted of 4,894 residential units and 6,585,594 square feet of nonresidential development.

In September 2011 the City Council certified a Supplemental EIR (“2011 SEIR”), which analyzed a total of 4,894 dwelling units and 6,585,594 square feet of nonresidential uses (including Great Park uses and other non-Great Park Neighborhood uses). The City Council thereafter approved an eighth Addendum in October 2011 and a Second Supplemental Environmental Impact Report (“2012 SSEIR”) in November 2013, which addressed the environmental effects associated with the implementation of the Heritage Fields 2012–General Plan Amendment and Zone Change Project at the former Marine Corps Air Station (“MCAS”), El Toro base.

The 2003 EIR, the 2011 SEIR, the 2012 SSEIR, and the eight Addenda are referred to together as the “Certified EIR” and are incorporated by reference in this Addendum. The development area and project analyzed and approved by the Certified EIR are referred to together as the “Approved Project Area” and “Approved Project,” respectively.

This Addendum analyzes the potential environmental effects associated with the construction and operation of a proposed K–8 school within the Great Park Neighborhoods (“Proposed Project”). Land uses analyzed under the Certified EIR included a K–8 school in Development District 1 North, and it is the basis for the Irvine Unified School District’s (“TUSD” or “District”) determination that development of the proposed school falls within the scope of the Certified EIR.

In comparison to the Certified EIR, this Addendum provides additional detail with respect to the construction, operation, and associated environmental impacts of the proposed K–8 school. This Addendum substantiates that no supplemental or subsequent EIR is required for the Proposed Project pursuant to Section 21166 of the Public Resources Code. The Proposed Project does not significantly differ from the project included in the Certified EIR, and would not result in any new or substantially more severe impacts than those that have already been analyzed. Further, no new or substantially more severe impacts would result from any changes in circumstances surrounding the Proposed Project.

1. Introduction

This Addendum has been prepared pursuant to the provisions of the California Environmental Quality Act (“CEQA”), Public Resources Code Sections 21000 et seq., the State CEQA Guidelines, and the City of Irvine Local Guidelines for Implementing CEQA (Local CEQA Guidelines).

1.2 PROJECT SUMMARY

The District proposes to develop and operate a new K–8 school with a maximum enrollment capacity of 1,000 students and 70 staff members on approximately 13 acres of land. The actual construction of the new K–8 school would be completed by Heritage Fields per the Mitigation Agreement between the District and Heritage Fields. The school would consist of centrally located classroom villages, a kindergarten with a separate play area, an administration building, a multipurpose room/performing arts center, food services, a day-care building, ball fields, and an athletic building. Other features include a lunch court, bike-storage area, a science court, and other grade-specific courts for student use. Turf and asphalt play areas would be on the eastern portion of the school. The play areas would not be illuminated with high-intensity light standards for nighttime use. Buildings on the property would be no greater than two stories and would collectively occupy approximately 85,500 square feet of the school property.

The normal operational hours would be from 7:30 AM to 3:30 PM, but students enrolled at the day-care facility could possibly start as early as 7:00 AM, and be picked up as late as 6 PM.

Parking would be provided on the north and west of the school site. The northern parking lot would be accessed from two separate driveways along a future unnamed street to the north, and the western parking lot would be accessed from two separate driveways along a future unnamed street to the west and a driveway along a future unnamed street to the south. The parking lots would provide a total of 98 parking spaces, including those designated for Americans with Disabilities Act (ADA) purposes. Student drop-off areas would be constructed on both the north and west sides of the proposed school in tandem with the parking lots.

As analyzed throughout this Addendum, implementation of the Proposed Project, like the Approved Project, would result in several indirect adverse impacts on people and the environment, including impacts related to air-quality, noise, and traffic. However, no changes have been proposed to the Approved Project that would result in any new impacts or substantially increase the severity of previously disclosed impacts. Thus, none of the conditions described in Section 15162 of the CEQA Guidelines are present, and a Supplemental or Subsequent EIR is not required by CEQA.

1.3 ENVIRONMENTAL PROCEDURES

Pursuant to CEQA and the State CEQA Guidelines, the District’s review of the Addendum focuses on the potential environmental impacts associated with a new K–8 school facility that might cause major revisions to the Certified EIR, due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects, pursuant to State CEQA Guidelines Section 15162.

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

1. Introduction

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 some changes or additions to the previously prepared EIR or negative declaration are necessary, but none of the conditions specified in Section 15162 are present, the lead agency shall prepare an addendum (CEQA Guidelines Section 15164[a]). In accordance with the CEQA Guidelines, since none of the conditions specified in Section 15162 are present, the District has determined that an Addendum to the Certified EIR is the appropriate form of environmental review for the proposed K-8 school project.

This Addendum reviews the project-specific development proposal of the K-8 school project compared to the programmatic level of analysis contained in the Certified EIR and any changes to the existing conditions that have occurred since the certification of the Certified EIR. It also reviews any new information 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 Certified EIR was certified. It further examines whether, as a result of any changes or any new information, a subsequent EIR or ND 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.

1. Introduction

The Environmental Checklist Form in Appendix G of the CEQA Guidelines has been completed by the District and is in Section 4 of this Addendum. The checklist includes findings as to the environmental effects of the Proposed Project as compared with the findings of the Certified EIR.

1.4 PREVIOUS ENVIRONMENTAL DOCUMENTATION

This Addendum relies on environmental analysis in the 2003 DEIR, 2011 Supplemental EIR, 2012 Second Supplemental EIR, and eight Addenda. These 11 documents, while discussed separately here, are collectively referred to in this Addendum as the Certified EIR. In accordance with CEQA Guidelines Sections 15148 and 15150, this Addendum incorporates the Certified EIR (and its constituent parts) by reference. A summary of the Certified EIR and how it relates to this Addendum is provided below. All documents incorporated by reference are available for review upon request at the City of Irvine Community Development Department at One Civic Center Plaza, Irvine, CA 92623-9575.

The 2003 Orange County Great Park (OCGP) EIR

The 2003 OCGP EIR was certified by the City of Irvine in May 2003. The project analyzed in that EIR consisted of the following actions: (1) Annexation, General Plan Amendment, Pre-Zoning (prior to annexation), and Zoning of the unincorporated portion of Planning Area 51; (2) Annexation of the unincorporated portion of Planning Area 35 (James A. Musick Branch Jail and the Irvine Ranch Water District Parcel); (3) General Plan Amendment and Zone Change for Planning Area 30; and (4) a Development Agreement that vested approval of overlay uses and intensities in consideration for the (i) dedication of land for public purposes, (ii) development and funding of certain infrastructure improvements, and (iii) funding of circulation facilities and infrastructure. Together, these actions established the policy and legislative structure for guiding the future development of the Approved Project Area, which was the former MCAS El Toro property.

Since certification of the 2003 OCGP EIR, a variety of actions in furtherance of the project analyzed therein have occurred. Those actions and their related environmental reviews pursuant to CEQA—contained in eight subsequent Addenda and two supplemental EIRs—are summarized below. Together, the 2003 OCGP EIR, the eight subsequent Addenda, and the two supplemental EIRs are referred to as the “Certified EIR.”

Orange County Great Park Redevelopment Plan (Addendum No. 1 to the 2003 OCGP EIR)

On May 18, 2006, the City of Irvine approved Addendum No. 1 to the 2003 OCGP EIR for the previously approved Redevelopment Plan for the Orange County Great Park Project Area (“OCGPPA”). The OCGPPA was based upon a Preliminary Redevelopment Plan previously formulated and adopted by the City of Irvine Planning Commission and Irvine Redevelopment Agency on January 15, 2004, and January 27, 2004, respectively. The OCGPPA set forth a process and framework within which specific development plans would be presented and priorities for specific development projects would be established, but did not present specific plans for any redevelopment, rehabilitation, and/or revitalization activities for any areas within the Orange County Great Park project area.

1. Introduction

The OCGPPA covers approximately 3,905.6 acres within Planning Areas 30 and 51. The environmental review for the OCGPPA was documented in Addendum No. 1 to the 2003 OCGP EIR, and was approved by the City of Irvine on May 18, 2006. In summary, Addendum No. 1 concluded that, as designed, the OCGPPA would not result in any additional significant environmental effects not already addressed by the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

2006 General Plan Amendment and Zone Change (Addendum No. 2 to the 2003 OCGP EIR)

On October 10, 2006, the City of Irvine approved Addendum No. 2 to the 2003 OCGP EIR, which addressed a General Plan Amendment (00416079-PGA) and Zone Change (00416080-PZC) for a Revised Overlay Plan. The General Plan Amendment and Zone Change consisted of adjustments to the boundary between the public and private areas of the Approved Project Area, revisions to text and figures related to Planning Areas 30 and 51, and the creation of a mixed-use zoning category called the Lifelong Learning District (“LLD”) within Planning Area 51. The General Plan Amendment also included technical changes to the General Plan. The LLD zoning allows for a combination of residential, commercial, and educational uses that promote and support a mixed-use environment.

The General Plan Amendment and Zone Change addressed in Addendum No. 2 did not result in any changes to the approved land use intensities or allowable land uses in Planning Areas 30 and 51. Addendum No. 2 concluded that, as designed, the aforementioned modifications to the project analyzed in the 2003 OCGP EIR would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

VTTM 17008 (Addendum No. 3 to the 2003 OCGP EIR)

Addendum No. 3 to the 2003 OCGP EIR was approved by the City of Irvine on May 17, 2007. Addendum No. 3 addressed Vesting Tentative Tract Map (“VTTM”) No. 17008 (Master Subdivision Map). VTTM No. 17008 subdivided 3,585 gross acres of the Approved Project Area into 44 numbered lots and 13 lettered lots consistent with the minor boundary adjustments made in Addendum No. 2. It did not, however, authorize the construction of any trip-generating land uses or alter any land use or associated acreages of the project analyzed in the 2003 OCGP EIR, as augmented by Addendum No. 1 and Addendum No. 2. In addition to the subdivision of land, VTTM No. 17008: 1) defined the backbone infrastructure; 2) defined boundaries of areas for future subdivision (i.e., “B” level tentative tract maps) and development; and 3) delineated the limits of rough grading for the infrastructure requirements of development of the project analyzed in the 2003 OCGP EIR. In summary, Addendum No. 3 concluded that, as designed, VTTM No. 17008 and its attendant features would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

1. Introduction

OCGP Master Plan (Addendum No. 4 to the 2003 OCGP EIR)

Addendum No. 4 to the 2003 OCGP EIR was approved by the City of Irvine on August 2, 2007. Addendum No. 4 addressed the OCGP Master Plan, which provided for the future buildout of the 1,145-acre multiuse public park facility located on the OCGP portion of the Approved Project Area to include passive and active recreational uses, as well as preservation-oriented and institutional uses. Addendum No. 4 concluded that, as designed, the modifications embodied in the OCGP Master Plan would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

2008 General Plan Amendment and Zone Change (Addendum No. 5 to the 2003 OCGP EIR)

Addendum No. 5 to the 2003 OCGP EIR was approved by the City of Irvine on July 22, 2008, and addressed a General Plan Amendment (00468566-PGA) and Zone Change (00468567-PZC) that amended the appropriate figures in the City's General Plan to reflect a relocation of the intersection of Bake Parkway/Marine Way and a reconfiguration of Rockfield Boulevard in the southern portion of Planning Area 30.

Addendum No. 5 also analyzed a General Plan Amendment (00470036-PGA) and Zone Change (00470039-PZA) to: (1) reduce the number of golf-course holes required within the Approved Project Area from 45 to 18; (2) remove the requirement for 173 acres of Agricultural Preserve in the Lifelong Learning District; and (3) make other changes to text, tables, and figures in the City's General Plan and Zoning Code.

In addition, Addendum No. 5 analyzed the Amended and Restated Development Agreement ("ARDA"), which: (1) vested Heritage Fields' right to develop under the City's General Plan and Zoning Code; (2) revised the funding mechanism for the OCGP maintenance; (3) shifted responsibility for defined "backbone infrastructure" cost overruns from the City to Heritage Fields; (4) transferred 130.5 acres of land from Heritage Fields to the City of Irvine; (5) established the location of a 5.5-acre police facility on the Approved Project Area, and required the transfer of that land from Heritage Fields to the City; (6) confirmed runway demolition and recycling protocols; and (7) amended and restated the Master Implementation Agreement, which specifies protocol for backbone infrastructure phasing. Addendum No. 5 concluded that, as designed, the matters discussed immediately above would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

Amended VTTM 17008 and Related Approvals (Addendum No. 6 to the 2003 OCGP EIR)

Addendum No. 6 to the 2003 OCGP EIR was approved by the City of Irvine on October 16, 2008. It analyzed an Amended Vesting Tentative Tract Map No. 17008 (00474083-PTT), Vesting Tentative Tract Map No. 17283 (00467853-PTT), Modification to OCGP Streetscape Design Guidelines (00475427-PMP), Master Landscape and Trails Plan ("MLTP") (00467322-PMP), and the Master Plan for Non Residential Development within the Lifelong Learning District (00470483-PMP). The requested entitlements did not permit any new development or alter approved intensities allocated to the Approved Project Area. Addendum

1. Introduction

No. 6 concluded that, as designed, the above-described VTTMs, Modification to the OCGP Streetscape Design Guidelines, the MLTP, and the Master Plan would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

NITM Five-Year Review (Addendum No. 7 to the 2003 OCGP EIR)

Addendum No. 7 to the 2003 OCGP EIR was approved by the City of Irvine on June 29, 2010, to update the North Irvine Transportation Mitigation Program (“NITM”). In 2007, the NITM Five-Year Review was initiated for the purpose of updating cost allocations, proposing alternative mitigation measures, and/or eliminating specific traffic and/or transportation improvements that were no longer necessary. The NITM Five-Year Review Traffic Study determined that traffic mitigation measures were no longer needed for seven intersections (Alton Parkway/Barranca Parkway, Lake Forest Drive/Irvine Center Drive, Ridge Route Drive/Moulton Parkway, Santa Maria Drive/Moulton Parkway, Los Alisos Boulevard/Trabuco Road, Moulton Parkway/Glenwood Drive-Indian Creek Lane, and Moulton Parkway/Laguna Hills Drive) and one ramp (SR-241 at Lake Forest Drive). Those intersections and that ramp were found to operate within an acceptable level of service (“LOS”) under baseline interim and long-term conditions. The associated future improvements were therefore deleted from the List of NITM Improvements. Since improvements at those locations had been incorporated in the 2003 OCGP EIR as mitigation, an addendum to the 2003 OCGP EIR was required to evaluate the removal of the improvements from the list of mitigation measures. Addendum No. 7 concluded that, as designed, the removal of those mitigation measures would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

2011 Supplemental Environmental Impact Report to the 2003 OCGP EIR

Between 2003 and 2011, the City made changes to residential and nonresidential development entitlements for the Approved Project Area. The 2011 Supplemental Environmental Impact Report (“2011 SEIR”) was certified by the City on August 30, 2011, for the purpose of modifying the project analyzed in the 2003 OCGP EIR and Addenda Nos. 1 to 7 by: (1) locating 1,100 low-density residential units, previously within Districts 5 and 7, in the locations depicted on the associated VTTMs, and changing the General Plan land use designation and the associated zoning of these units from Low Density (0–5 du/ac) to Multiuse (0–40 du/ac); (2) locating 1,500 residential units, previously in the portion of the Transit Oriented District (“TOD”) located within Existing Pas 30 and 51, to the locations depicted on the VTTMs; (3) locating the 1,269 dB units, which had not previously been located, in the locations depicted on the VTTMs; (4) locating the remaining 1,025 residential units on the VTTMs; (5) transferring nonresidential development intensities between certain zones; (6) realigning Ridge Valley and “O” Street at Irvine Boulevard; and (7) other minor text/graphic modifications to the General Plan and Zoning Code.

The entitlements that implemented the above were:

1. Introduction

- General Plan Amendment
- Zone Change
- 2nd Amendment to VTTM 17008
- Amendments to Master Landscape and Trails Plan
- 2nd Amendment to Vesting Tentative Tract Map 17283
- Master Plan and Park Plan for District 1-North
- Vesting Tentative Tract Map 17368
- Master Plan and Park Plan for District 1-South
- Vesting Tentative Tract Map 17366
- Master Plan and Park Plan for District 4
- Vesting Tentative Tract Map 17202
- Master Plan and Park Plan for District 7
- Vesting Tentative Tract Map 17364
- Master Plan and Park Plan for District 8

The 2011 SEIR was also the environmental clearance document for:

- 2nd Amended Tentative Parcel Map 2006-271
- Amendment to the Master Affordable Housing Plan to locate the 544 affordable home sites in 2nd Amended VTTM 17283
- First Amendment to the Density Bonus Housing Agreement to implement the changes to the Master Affordable Housing Plan and other minor modifications

The 2011 SEIR concluded, like the 2003 OCGP EIR and seven Addenda, that with implementation of the project analyzed in the 2011 SEIR, the previously approved project's impacts to Air-quality and Population and Housing impacts would remain significant and unavoidable, even after mitigation. The impacts to Transportation/Traffic would remain significant and unavoidable, even after mitigation, but only if certain mitigation measures requiring improvements that are within the responsibility and jurisdiction of a public agency (over which the City has no control) would not be implemented for reasons beyond the City's control.

Addendum No. 8 to the 2003 OCGP EIR

Addendum No. 8, which was approved by the City on October 20, 2011, analyzed minor modifications to the approved OCGP Master Plan and the Park Design Review, which were associated with implementation of the Western Sector Park Development Plan Phase I ("Western Sector Park Development Plan Project"). The minor modifications proposed transferring nonresidential square footage from the northeastern area to the southwestern area of the Great Park; removing the Air Museum and Concessions/Retail, and replacing them with the Artist in Residency Facility, the proposed Community Ice Facility, and the proposed Nature Education Garden; and replacing the existing Air Museum Hangar with Hangar 233. The Western Sector Park Development Plan Project was approved by the Great Park Board and the City on October 20, 2011.

1. Introduction

Addendum No. 8 concluded that, as designed, the matters discussed immediately above would not result in any additional significant environmental effects not already adequately addressed in the 2003 OCGP EIR and 2011 SEIR, or any substantial increase in the severity of previously identified significant effects, or any change in circumstances, and that there was no new information of substantial importance.

2012 Second Supplemental Environmental Impact Report to the 2003 OCGP EIR

The 2012 Second Supplemental Environmental Impact Report (“2012 SSEIR”) addressed the environmental effects associated with the implementation of the Heritage Fields 2012–General Plan Amendment and Zone Change Project at the former Marine Corps Air Station (“MCAS”), El Toro. The overall purpose of the 2012 SSEIR was to inform the City’s decision makers and the general public whether, as compared to the 2011 SEIR, the project analyzed in the 2012 SSEIR would result in any new significant impacts or an increase in the severity of significant impacts.

The General Plan Amendment included the following in Existing PAs 30 and 51: (1) consolidation of Existing PAs 30 and 51 and the TCA Parcel into one PA to be designated as “Combined PA 51”; (2) amendment of the General Plan maps to reflect a zone change for Districts 2, 3 and 6 from 3.2 Transit Oriented Development, 4.3 Vehicle Related Commercial, and 5.4B General Industrial to 8.1 TTOD; (3) amendment of the General Plan maps to reflect a zone change for District 5, which is currently zoned 8.1 TTOD, and 13-acres in District 6 (formerly District 9), which is currently zoned 1.1 Agriculture, to 1.4 Preservation to accommodate the Relocated Wildlife Corridor Feature; (4) amendment of General Plan Land Use Table A-1 to allow 9,500 dwelling units in the proposed Combined PA 51 (reflecting the inclusion of the previously approved 4,894 residential units) with an option to convert up to 535,000 square feet of non-residential Multi-Use to up to an additional 889 dwelling units (and 311 DB units) for a revised total up to 10,700 dwelling units; and (5) amendment of the Master Plan of Arterial Highways, Figure B-1, to eliminate the extension of Rockfield Boulevard from the eastern project boundary to Marine Way once the proposed amendment to the countywide Master Plan of Arterial Highways (MPAH) is approved by the OCTA.

With the Zone Change under the 2012 SSEIR, properties located in Districts 2, 3, and 6, the City Parcels, and the TCA Parcel, were rezoned to the 8.1 Trails and Transit Oriented Development zoning designation and 13-acres in District 6 (formerly District 9) zoned 1.1 Agriculture were rezoned to 1.4 Preservation to accommodate the Relocated Wildlife Corridor Feature.

The 2012 SSEIR did not disclose any new significant environmental effects or any substantial increase in the severity of previously identified significant effect except for certain increases in Air-quality and Traffic impacts. Although the project analyzed under the 2012 SSEIR increased the impacts in these two areas compared to the 2011 SEIR, they were both areas in which the 2011 SEIR had already identified significant and unavoidable impacts. Like the 2011 SEIR, the 2012 SSEIR also identified significant and unavoidable impacts to Transportation/Traffic, but only if certain mitigation measures requiring improvements within the responsibility and jurisdiction of a public agency (over which the City has no control) would not be implemented for reasons beyond the City’s control. Unlike the 2011 SEIR, the 2012 SSEIR did not have a significant and unavoidable impact related to Population and Housing.

1. Introduction

This page intentionally left blank.

2. Environmental Setting

2.1 PROJECT LOCATION

As used in this Addendum, the term “Project Site” refers to the approximately 13-acre area bounded by the future “LN Street” on the north, “VV” Street on the south “C” Street on the east, and “LM” Street on the west, as aligned in the Orange County Great Park Plan, east of Sand Canyon and Highway 133, and north of Trabuco Road, in the City of Irvine, Orange County. No address exists for the Project Site. As shown in Figure 1, *Regional Location*, the Project Site is near the eastern boundary of the City of Irvine, and the City of Irvine is in close proximity to the cities of Tustin, Santa Ana, Costa Mesa, and Newport Beach on the west side, and cities of Lake Forest, Laguna Hills, Laguna Woods, and unincorporated Orange County on the east side. The Project Site is on a portion of the former Marine Corps Air Station El Toro (“MCAS El Toro”), in the Combined Planning Area 51 (“Combined PA 51”) of the Orange County Great Park, as identified by the City of Irvine General Plan. See Figure 2, *Planning Areas*.

Locally, the Project Site is in Development District 1 North of the Combined PA 51 known as the Great Park Neighborhoods, which consists of nine Development Districts as shown in Figure 3, *Development District Map*. The Great Park Neighborhoods is also known as the Heritage Fields Development. Figure 4, *Local Vicinity*, shows the Project Site in relation to the future major roadway system per the Approved Project.

2.2 ENVIRONMENTAL SETTING

2.2.1 Existing Land Use

The 13-acre Project Site would be within the former MCAS El Toro base, in the Trails and Transit Oriented Development 8.1 zone (“TTOD 8.1”) of the District 1 North, Combined PA 51. The Project Site was historically used by the military for the base auditorium, library, chapel, and a chapel administrative office. However, all former buildings have been demolished and the Project Site has been mass graded. Figure 5, *Aerial Photograph*, shows the interim phase of the Project Site after demolition, but prior to grading. As shown, the Project Site and surrounding area are currently vacant.

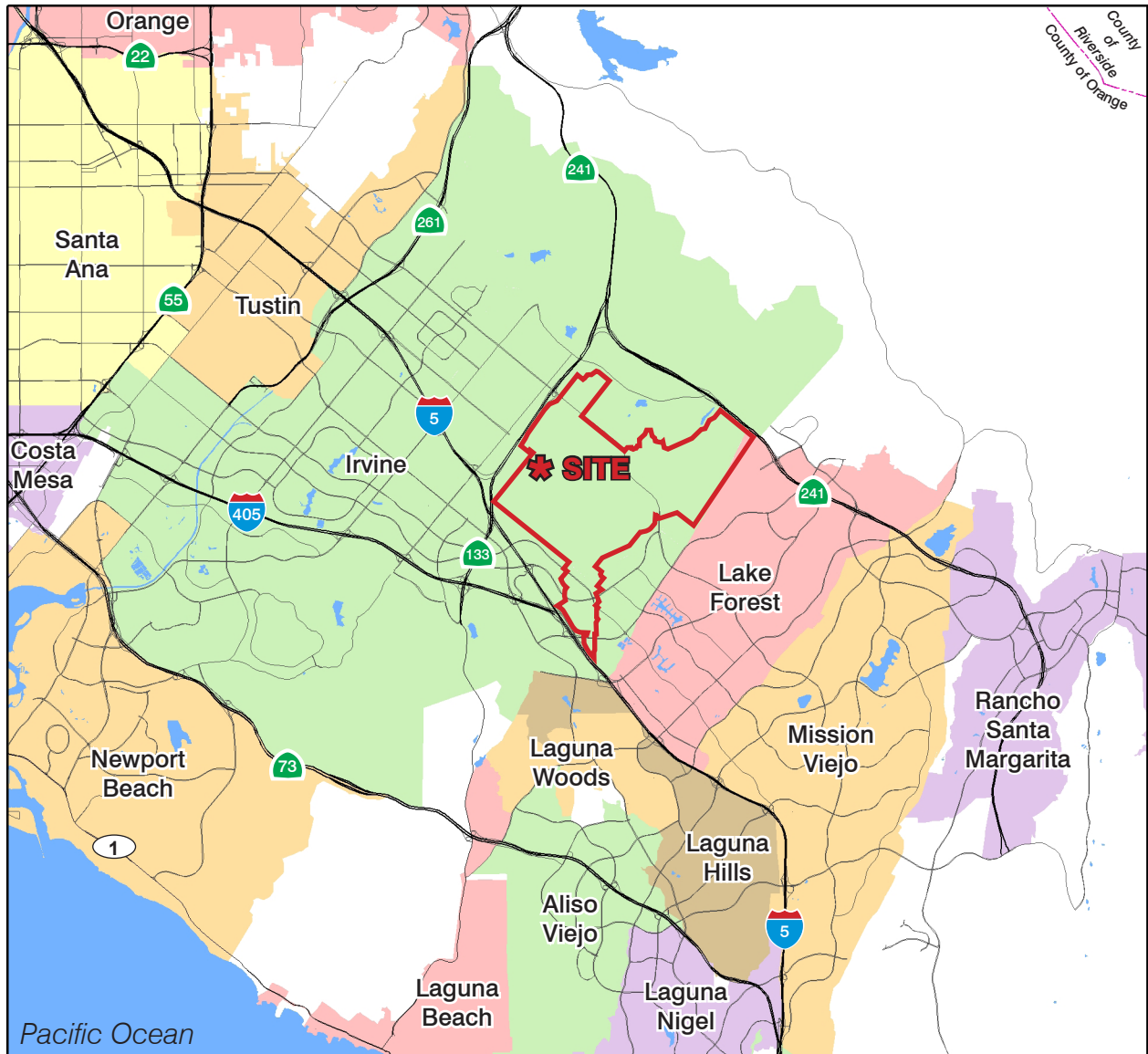
2.2.2 Surrounding Land Use

Surrounding land, as well as the Project Site, has been mass graded and is therefore devoid of any structures. Land uses currently surrounding the Combined PA 51 include residential and agricultural to the north, commercial and light industrial uses to the south, residential and commercial to the west, and commercial and agricultural to the east.

2. Environmental Setting

Major roadways near the Project Site are Sand Canyon Avenue to the west, Portola Parkway and Irvine Boulevard to the north, Barranca Parkway to the south, and Alton Parkway to the east. Figure 4 depicts the existing and proposed local roadway network in the vicinity of the Project Site.

Figure 1 - Regional Location
2. Environmental Setting



— Combined Planning Area 51 Boundary

0 3
Scale (Miles)



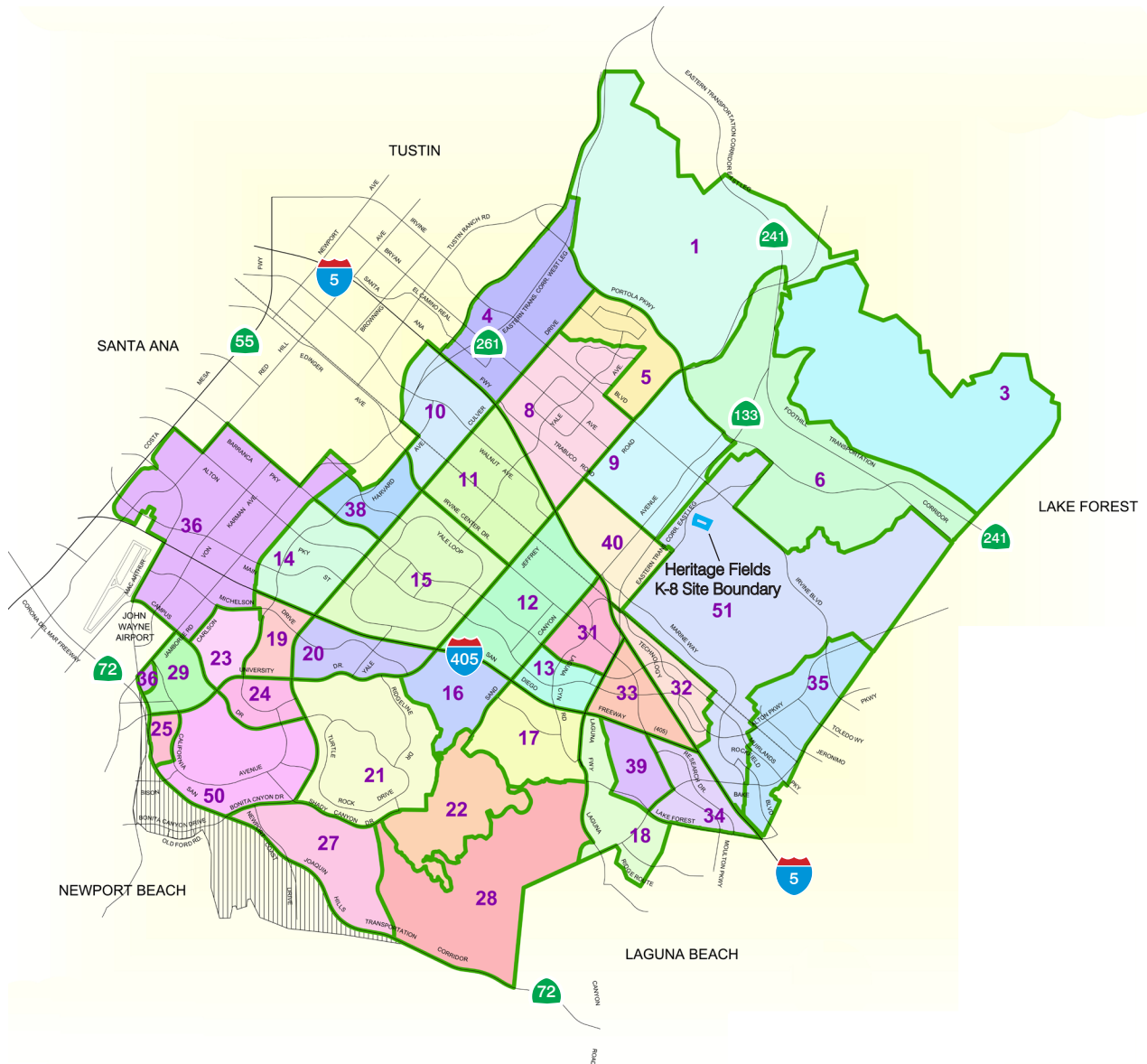
Source: PlaceWorks, 2013; ESRI, 2013

PlaceWorks

2. Environmental Setting

This page intentionally left blank.

Figure 2 - City of Irvine Planning Areas
2. Environmental Setting



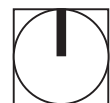
- PA1 Orchard Hills
- PA3 Limestone Canyon - Open Space
- PA4 Lower Peters Canyon
- PA5 Northwood Point
- PA6 Portola Springs
- PA8 Northwood
- PA9
 - PA9A Woodbury
 - PA9B & C2 Stonegate
 - PA9C1 Woodbury East
- PA10 Walnut
- PA11 El Camino Real
- PA12 Oakcreek
- PA13 Irvine Spectrum 4
- PA14 Westpark
- PA15 Woodbridge
- PA16 Quail Hill - Open Space

- PA16 Quail Hill - Open Space
- PA17 Quail Hill
- PA18 Laguna Alta
- PA19 Rancho San Joaquin
- PA20 University Park
- PA21 Turtle Rock
- PA22 Shady Canyon
- PA23 San Joaquin Marsh
- PA24 University Town Center
- PA25 University Research Center
- PA27 Turtle Ridge
- PA28 Bommer Canyon - Open Space

- PA29 UCI - North Campus
- PA31 Irvine Spectrum 6
- PA32 Irvine Spectrum 3
- PA33 Irvine Spectrum Center
- PA34 Irvine Spectrum 5
- PA35 Irvine Spectrum 2
- PA36 Irvine Business Complex
- PA38 Westpark II
- PA39 Los Olivos
- PA40 Cypress Village
- PA50 University of California, Irvine
- PA51 Combined PA 51

Heritage Fields K-8 Site Boundary

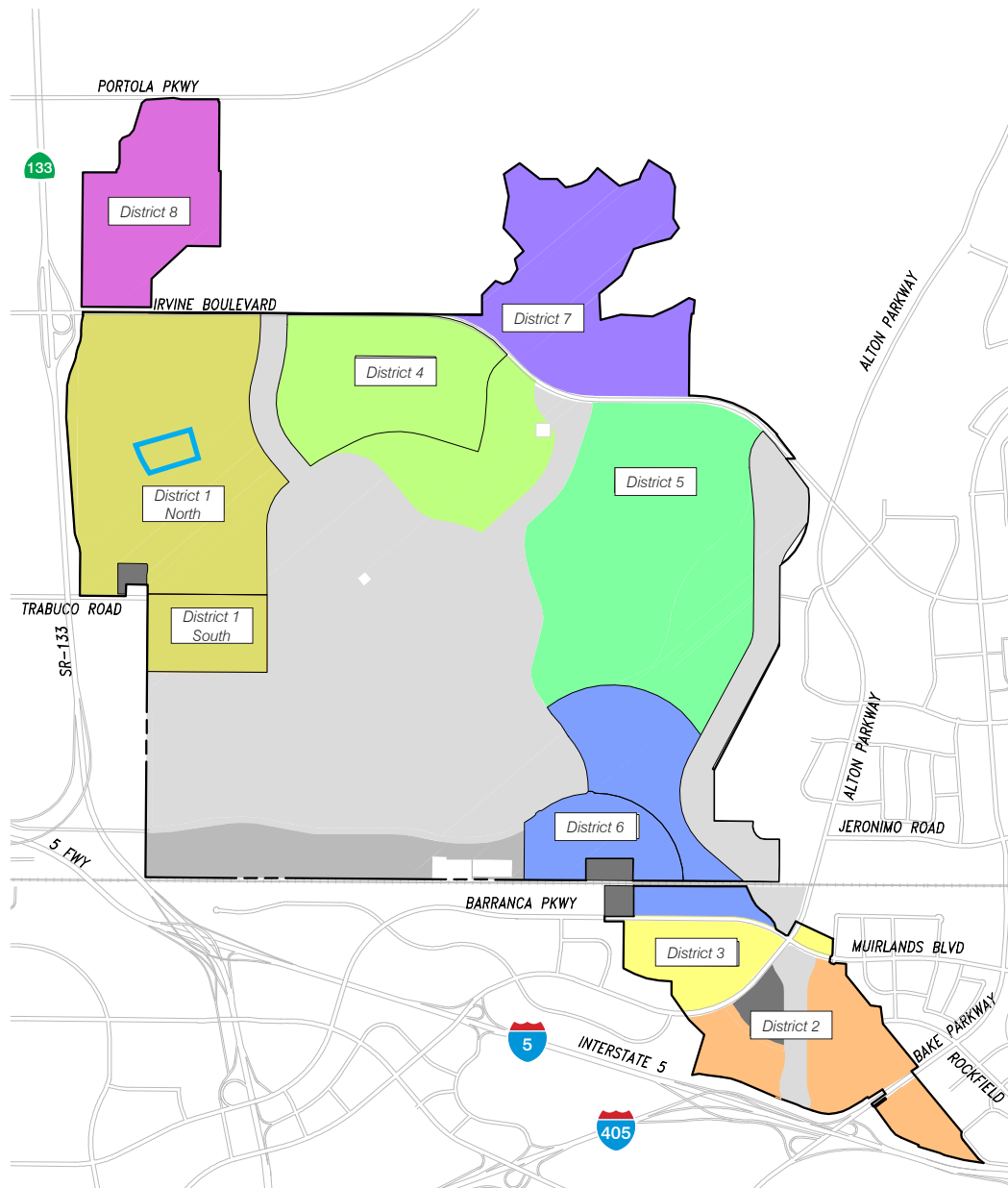
0 3
Scale (Miles)



2. Environmental Setting

This page intentionally left blank.

Figure 3 - Development District Map
2. Environmental Setting



NOTE
DEVELOPMENT DISTRICT LIMITS MAY BE
ADJUSTED ADMINISTRATIVELY TO REFLECT
PROPERTIES EXCHANGED BETWEEN
HERITAGE FIELDS AND THE CITY

Heritage Fields K-8 Site Boundary

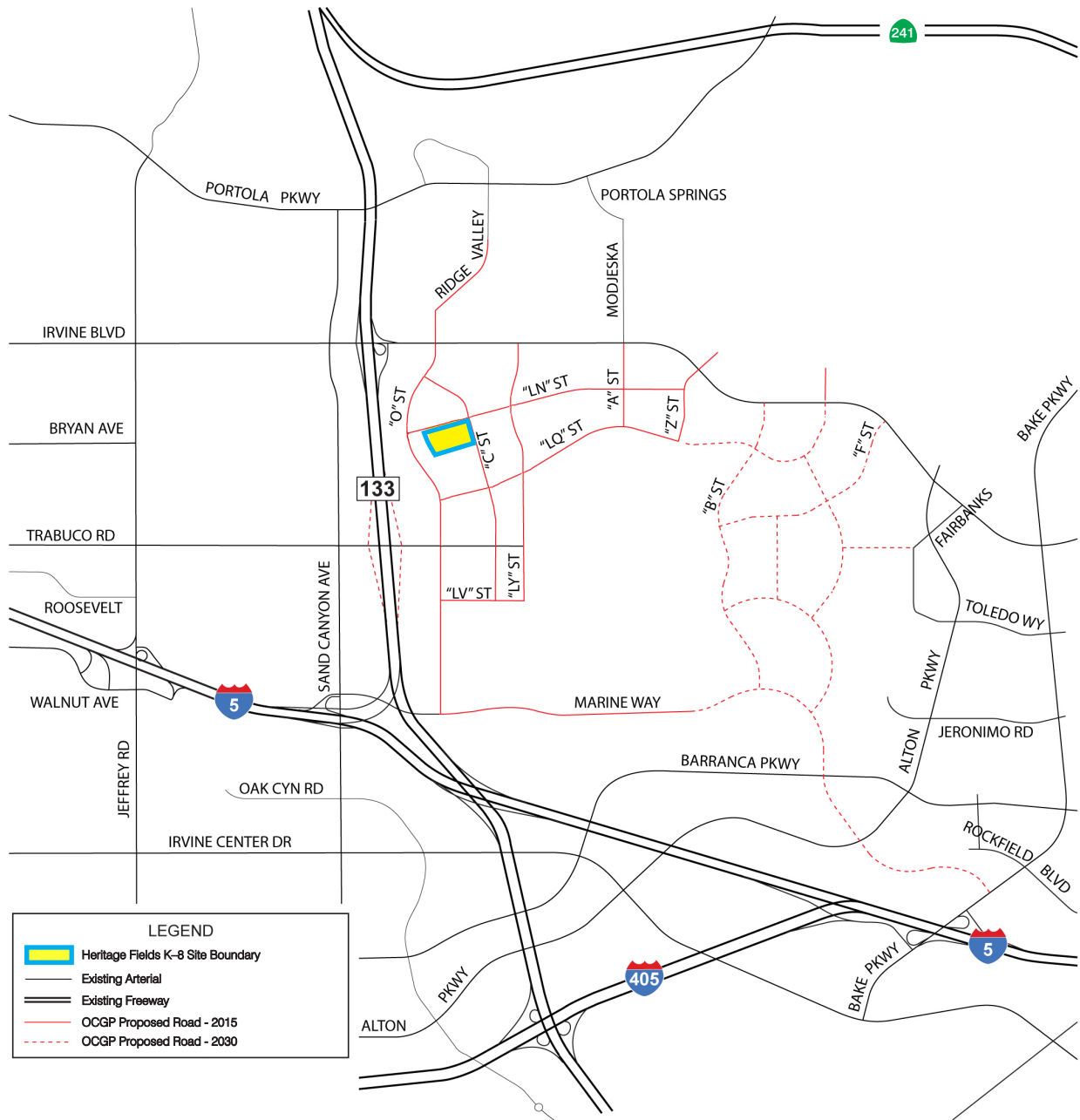
0 1
Scale (Miles)



2. Environmental Setting

This page intentionally left blank.

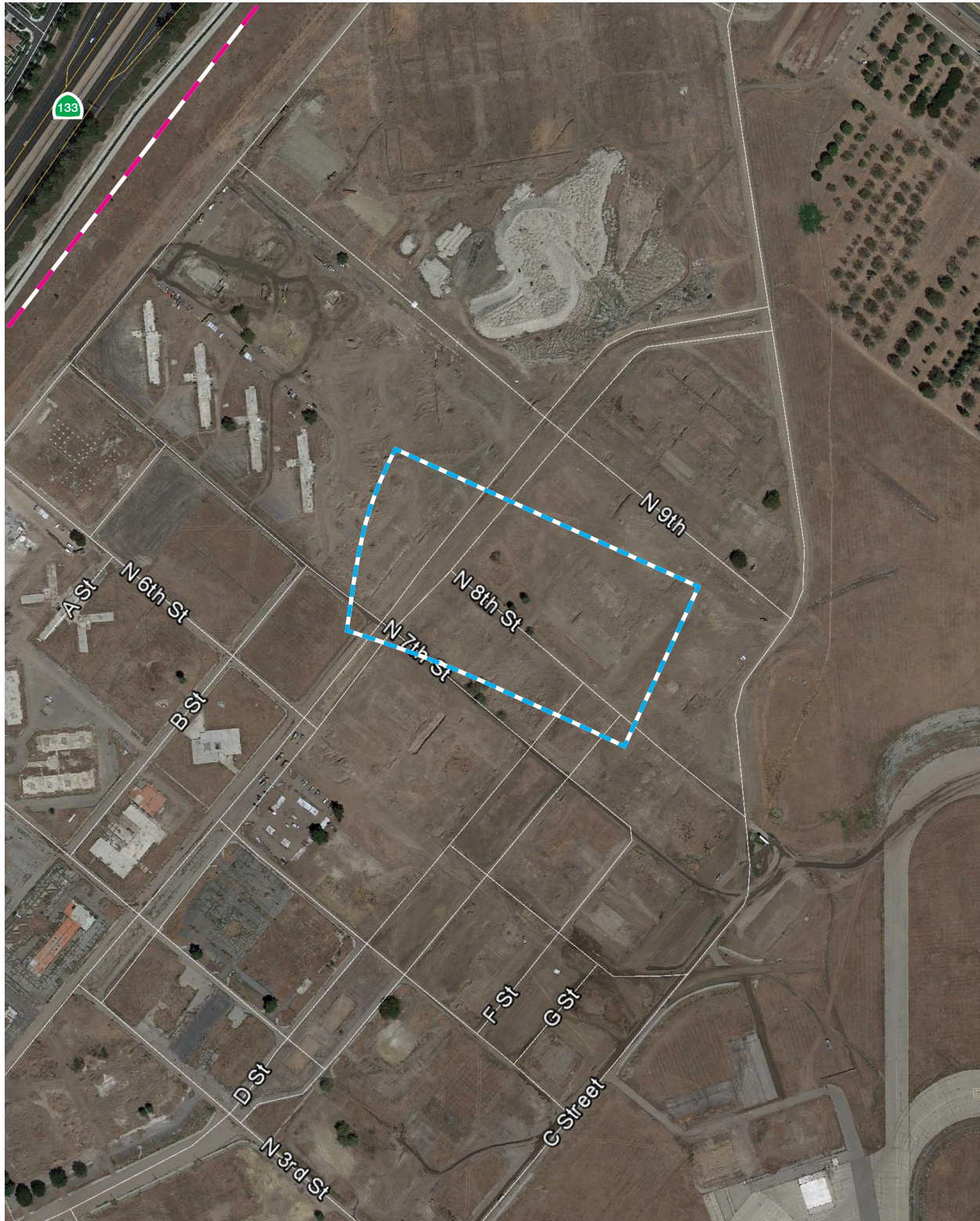
Figure 4 - Local Vicinity
2. Environmental Setting



2. Environmental Setting

This page intentionally left blank.

Figure 5 - Aerial Photograph
2. Environmental Setting



--- Existing PA 30 and PA 51 Boundary

--- K-8 School Boundary

0 500
Scale (Feet)

Source: Google Earth Pro, 2014



PlaceWorks

2. Environmental Setting

This page intentionally left blank.

3. Project Description

The K–8 school facility was analyzed at a programmatic level in the Certified EIR by the City of Irvine (“City”). As part of this Addendum, a site-specific description of the K–8 school facility is provided herein.

3.1 PROJECT DESCRIPTION

The District proposes to construct a new educational facility. The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass-graded and compacted, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and site improvements. Upon receipt of the project site, the District would construct and operate the following K–8 school facilities:

Facilities

The proposed new K–8 school would be constructed on approximately 13 acres of land (Figure 6, *Proposed Site Plan*). The school would consist of centrally located classroom villages, a kindergarten with a separate play area, an administration building, a multipurpose room/performing arts center, food services, a day-care building, ball fields, and an athletic building. Other features include a lunch court, bike-storage area, a science court, and other grade-specific courts for student use.

Turf and asphalt play areas would be on the eastern portion of the school. The play areas would not be illuminated with high-intensity light standards for nighttime use. Buildings on the property would be no greater than two stories and would collectively occupy approximately 95,500 square feet of the school property.

Operation

The proposed K–8 school would include a capacity for a total of 1,000 students. In addition, it is anticipated that approximately 70 staff members would be employed at the new school. The operational hours of the school would be from 7:30 AM to 3:30 PM. However, students enrolled at the day-care facility could possibly start as early as 7:00 AM, and be picked up as late as 6 PM.

The District may consider entering into a proposed joint-use agreement with the Home Owners Association for community use of the athletic building if the need arises.

Parking and Vehicle Access

Parking would be provided on the north and west of the school site. The northern parking lot would be accessed from two separate driveways along a future unnamed street to the north. The western parking lot would be accessed from two separate driveways along a future unnamed street to the west, and a driveway along a future unnamed street to the south. The parking lots would provide a total of 98 parking spaces,

3. Project Description

including those designated for ADA purposes. Student drop-off areas would be constructed on both the north and west sides of the proposed school in tandem with the parking lots.

Construction

It should be noted that a Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District after mass grading, and with utilities and the road network installed. Construction activities would start in October 2014, and terminate in August 2015. The school would open for instruction in August 2015.

3.1.2 Discretionary Approvals

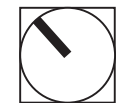
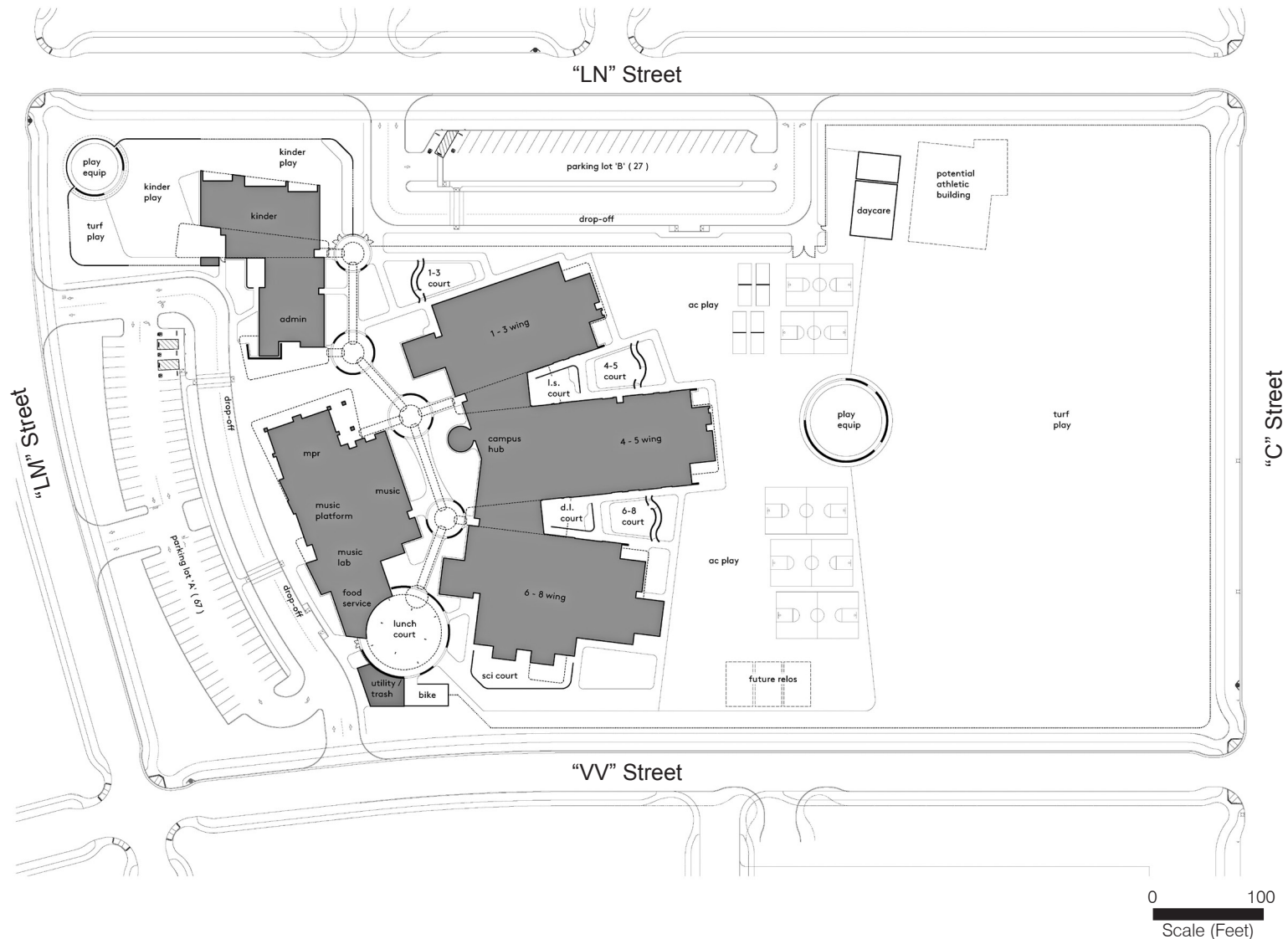
Implementation of the project includes the following discretionary actions to be undertaken by the District:

- CEQA related actions and approvals, and approval of the construction and operation of the proposed Heritage Fields K-8 School.

Other Agencies whose approval is required:

- California Department of Education
- Division of State Architect
- Department of Toxic Substances Control
- Santa Ana Regional Water Quality Control Board

Figure 6 - Proposed Site Plan
3. Project Description



3. Project Description

This page intentionally left blank.

4. Environmental Checklist

4.1 BACKGROUND

Project Title: Heritage Fields K–8 School #1

Lead Agency Name and Address:

Irvine Unified School District
100 Nightmist Street
Irvine, CA 92618

Contact Person and Phone Number:

Dana Grudem, Facilities Planning Supervisor
949.936.5327

Project Location:

As shown in Figure 4, *Local Vicinity*, the project area comprises approximately 13 acres within the northwestern corner of Planning Area 51. No address currently exists for the site, however, it is located more specifically within the proposed Vesting Tentative Tract Map 17283 and APN 58008258. The school site is generally oriented to the south of Irvine Boulevard, east of Sand Canyon Avenue and Highway 133 and north of Trabuco Road. The site is more specifically located to the west of the former airport runways near the intersection of D Street and N 8th Street on the former MCAS El Toro base in Irvine, Orange County, California.

Project Sponsor's Name and Address:

Irvine Unified School District
100 Nightmist Street
Irvine, CA 92618

General Plan Designation: Orange County Great Park (OCGP)

Zoning: 8.1, Trails and Transit Oriented Development.

Description of Project:

See Chapter 3, Project Description.

Surrounding Land Uses and Setting:

The Project Site is generally surrounded by the remnants of the former MCAS El Toro base. A mixture of abandoned and razed buildings, former base roadways, and demolition debris piles characterizes the property surrounding the Project Site. Land uses surrounding Combined Planning Area 51 include

4. Environmental Checklist

residential and agricultural to the north, commercial and light industrial uses to the south, residential and commercial to the west, and commercial and agricultural to the east. Major roadways nearby the proposed Project Site are Sand Canyon Avenue to the west, Portola Parkway and Irvine Boulevard to the north, Barranca Parkway to the south, and Alton Parkway to the east. The site is located on the former MCAS El Toro base in Irvine, Orange County, and was historically used by the military for the base auditorium, library, chapel and a portion of the former chapel administrative office. The site is currently vacant, all former buildings have been demolished, and mass grading has occurred.

Other Public Agencies Whose Approval Is Required:

State of California

- Department of Toxic Substances Control–Determination of “No Further Action.”
- State Allocation Board–Approval of funding.
- Department of Education, School Facilities Planning Division–Site and plan review and approval.
- Department of General Services, Division of State Architect–Approval of construction drawings.
- Department of General Services, Office of Public School Construction–Approval of funding.

Regional Agencies

- Santa Ana Regional Water Quality Control Board–National Pollution Discharge Elimination System Permit; issuance of waste discharge requirements and construction stormwater runoff permits).
- Orange County Fire Authority–Fire and emergency access.
- South Coast Air-quality Management District–Rule 201: Permit to construct.

Local Agency

- City of Irvine–Roadway improvements and driveway access; approval of improvement plans such as drainage, sewer, water, curb cuts, etc.
-

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 on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forest Resources | <input type="checkbox"/> Air-quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

4. Environmental Checklist

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, a supplemental or subsequent EIR is not required by CEQA. The District has prepared an addendum to the certified EIR pursuant to CEQA Section 21166 and CEQA Guidelines Sections 15162(a) and 15164.

Signature

Date

Printed Name

For

4. Environmental Checklist

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.

4. Environmental Checklist

- 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.

4. Environmental Checklist

This page intentionally left blank.

5. Environmental Analysis

This section provides evidence to substantiate the conclusions in the environmental checklist. The section briefly summarizes the conclusions of the Certified EIR and discusses the following three questions: 1) whether or not the Proposed Project represents a substantial change in the Approved Project that will require major revisions to the Certified EIR; 2) whether or not substantial changes with respect to circumstances under which the project is being undertaken will require major revisions to the Certified EIR; or 3) if new information shows any sign of the findings in CEQA Guidelines Section 15162 (a)(3).

Mitigation measures referenced are from the Certified EIR unless otherwise noted.

5.1 AESTHETICS

5.1.1 Environmental Setting

Within the Heritage Fields Development, none of the roadways are designated County or State scenic highways. In the project vicinity, Sand Canyon Avenue is designated as a highway with rural/natural character. And the City's General Plan designates Interstate 5 ("I-5") as an urban character Scenic Highway. From these highways, a variety of land uses, structures, and facilities of differing ages, sizes, and architectural styles may be viewed.

The predominant features in the Approved Project Area are associated with the military use of the base, including runways, aprons, hangars, warehouses, barracks housing, recreational facilities, golf course, single-family housing, offices, and commercial structures. However, most of these features have been demolished, and mass grading has occurred throughout much of the former MCAS El Toro base.

Existing sources of light include street lights along roadways, parking lot lighting, security lighting, and the buildings on the former MCAS El Toro base.

With respect to the Project Site, the site has been mass graded and vacant, and there are no existing sources of light or glare.

5.1.2 Summary of Impacts Identified in the Certified EIR

Visual Character Impacts

The Certified EIR concluded that with compliance with the City's Zoning Ordinance, including City approval of architectural plans, landscape plans, and signage for each development to ensure new development is consistent with the City's Land Use Element, Circulation Element design policies, Zoning Ordinance, and the City's Landscape Ordinance and Guideline Manual, impacts to the visual character of the Approved Project would be less-than-significant.

5. Environmental Analysis

Light and Glare Impacts

Mitigation measures in the Certified EIR and associated mitigation monitoring and reporting program (“MMRP”) for the Approved Project requires the City Community Development Department to review lighting plans and signage plans for new development and require a design-level glare impact analysis for the use of mirrored and highly reflective surfaces to ensure that there will be minimal light intrusion and spillover into adjacent residential areas. Therefore, light and glare impacts of the Approved Project were determined to be less-than-significant after implementation of mitigation.

5.1.3 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Project Site is currently graded and vacant and there are no scenic routes, scenic resources, or unique geologic or topographic features within the Approved Project Area. The Project Site is part of District 1 North, where VTSM 17283A has been approved. Development of a K–8 school within District 1 North was part of the Approved Project and the project’s development would not result in an incompatible land use. Development of the school would be aesthetically consistent and compatible with the characteristics of the surrounding area. The school would include the use of landscaping both around the perimeter and in the interior locations of the school grounds, which would be maintained in good condition.

The Proposed Project would involve exterior and interior building lights, security lighting along the perimeter of the site, and low intensity parking lot lighting. While future residents and occupants of the District 1 North would have an unobstructed view of the proposed school, the lighting proposed for the school would be relatively modest and would not flash or adversely affect any day or nighttime views in the area.

5. Environmental Analysis

Depending on the increased level of light and glare created by the project or the types of building materials used in the construction of the school, slight impacts may be created at the surrounding residences. However, it is anticipated that nonreflective building materials would be utilized as a standard measure to reduce glare impacts. Furthermore, new exterior lighting used for security purposes in the evening would be limited to low-wattage, energy-conserving lighting, shielded where necessary, and focused to minimize light overflow into the night sky or adjacent properties. Classroom and security lighting proposed at the site would not create substantial light or glare. Play-field lighting is not proposed.

Construction of school buildings would not be greater than two stories high. The proposed school's building orientation and massing would be designed to provide breaks between the buildings. The new buildings would not obstruct any scenic vistas, and no adverse impacts would occur.

With regard to CEQA Section 21166 and CEQA Guidelines Section 15162(a), the Proposed Project would not result in any new impacts, or increase the severity of impacts, with respect to adverse effects on aesthetics for the reasons discussed above. Thus, preparation of a supplemental or subsequent EIR is not required by CEQA.

5.1.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

- A-1 ~~Prior to issuance of building grading permits, lighting plans and signage plans for residential or nonresidential new development the Proposed Project shall be reviewed by the Community Development Department Irvine Unified School District to~~ shall ensure that ~~minimal~~ light intrusion and spillover into adjacent residential areas from the proposed project are minimized ~~occurs~~.
- A-2 ~~Prior to the issuance of building grading permits for residential and nonresidential development the Proposed Project, and during the master plan review process for future development in the project area, The Director of Community Development Irvine Unified School District shall~~ ensure that mirrored and highly reflective surfaces are discouraged, or, where proposed, shall be accompanied by a design-level, glare-impact analysis that demonstrates that there is no adverse visual impairment to motorists or other visual nuisance occurs.

5. Environmental Analysis

5.2 AGRICULTURE AND FOREST RESOURCES

5.2.1 Environmental Setting

The Certified EIR described the Farmland Mapping and Monitoring Program (“FMMP”) of the California Department of Conservation Division of Land Resources Protection classifications of agricultural lands present within the project area as follows.

Prime Farmland: Land which has the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the previous two map updates.

Farmland of Statewide Importance: Similar to Prime Farmland, except this land has minor shortcomings such as greater slopes or less ability to store soil moisture than Prime Farmland. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been used for production of irrigated crops at some time during the previous two map updates.

Unique Farmland: Lesser-quality soils used for the production of the state’s leading crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climate zones in California. This land is used for the production of specific, high-economic-value crops such as oranges, olives, avocados, rice, grapes, or cut flowers. Land must have been cropped at some time during the two previous maps updates.

Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.

Grazing Land: Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Urban and Built-up Land: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, and sewage treatment and water control structures.

Other Land: Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines or borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land greater than 40 acres and surrounded on all sides by urban development is mapped as Other Land.

5. Environmental Analysis

Land Committed to Nonagricultural Use: This optional designation is an overlay to the standard farmland categories described above and represents existing farmland and grazing land, and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural development that are not reversible by a simple majority vote by a city council or board of supervisors.

Although the Approved Project Area contains agricultural uses and FMMP designated farmlands, conversion of those areas to urban uses have already been approved under the Certified EIR.

Williamson Act

The Williamson Act provides tax incentives for landowners who enter into contracts with the local government for long-term use restrictions on agricultural and open space land for qualifying properties. There are no Williamson Act contracts on any lands within the vicinity of or within the Project Site (DOC 2013a).

5.2.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR determined the Approved Project would not result in significant impacts to agricultural resources provided that Mitigation Measures AG-1 through AG-3 are implemented. The City of Irvine, through certification of the 2003 OCGP EIR, approved the conversion of 802 acres of designated farmland to nonagricultural uses, including: 651 acres of Prime Farmland, 63 acres of Unique Farmland, and 88 acres of Farmland of Statewide Importance. It was initially determined that even with mitigation, impacts from the loss of farmland would be significant and unavoidable. However, Addendum No. 5 approved the conversion of 173 acres of Prime Farmland in Development District 8 of PA 51 to urban uses and concluded that with mitigation, impacts to agricultural resources were no longer significant because the City's General Plan Objective L-10 establishes the Irvine Agricultural Legacy Program. The 2012 SSEIR approved conversion of additional 13 acres of prime farmland for preservation uses and concluded that with mitigation, impacts to agricultural resources would be less-than-significant. The Project Site is designated as Urban and Built-up Land by the Farmland Map (DOC 2013a).

5.2.3 Impacts Associated with the Proposed Project

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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

Comments:

The Project Site is identified as Urban and Built-up Land by the Farmland Map and is zoned for 8.1 Trails and Transit Oriented Development. The Project Site has been mass graded and no agricultural uses or forest land uses exists onsite. No Williamson Act Contracts apply and no forest land would be converted. The Proposed Project was analyzed in a programmatic level by the Certified EIR and no change in land use would occur. No changes or new information would change the significance conclusion of the Certified EIR.

5.2.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to agricultural or forest resources that are applicable to the Proposed Project were identified in the Certified EIR.

5. Environmental Analysis

5.3 AIR-QUALITY

5.3.1 Environmental Setting

The environmental and regulatory settings for the Proposed Project have changed since certification of the Approved Project. The following discussion is provided to update conditions relative to development of the Proposed Project.

The Clean Air Act (“CAA”) was passed in 1963 by the US Congress and has been amended several times. The 1990 Amendments represent the latest in a series of federal efforts to regulate the protection of air-quality in the United States. Geographic areas are classified under the national and California CAA as either in attainment or nonattainment for each criteria pollutant based on whether the ambient air-quality standards (“AAQS”) have been achieved. Both the State of California and the federal government have established health-based AAQS for seven air pollutants: ozone (“O₃”), nitrogen dioxide (“NO₂”), carbon monoxide (“CO”), sulfur dioxide (“SO₂”), coarse inhalable particulate matter (“PM₁₀”), fine inhalable particulate matter (“PM_{2.5}”), and lead (“Pb”). Table 1 shows the most recently adopted AAQS.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O ₃)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	*1	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	*1	
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m ³	150 µg/m ³	
Respirable Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m ³	
	Rolling 3-Month	*	0.15 µg/m ³	

5. Environmental Analysis

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
	Average			
Sulfates (SO ₄)	24 hours	25 µg/m ³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo = 0.23/km visibility of 10 ² miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2013

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

¹ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked.

The City of Irvine is in the South Coast Air Basin (“SoCAB”) and is subject to the rules and regulations imposed by the South Coast Air-quality Management District (“SCAQMD”) as well as the California AAQS adopted by the California Air Resources Board (“CARB”) and National AAQS adopted by the United States Environmental Protection Agency (“EPA”). The SoCAB is designated nonattainment for O₃, PM_{2.5}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for PM₁₀ and NO₂ under the California AAQS.^{1, 2} SCAQMD prepares an air-quality management plan (“AQMP”) that details measures taken to achieve the national and California AAQS. The most recent AQMP is the 2012 AQMP.

5.3.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR concluded that, even after the implementation of plans, programs, or policies (“PPP”), project design features (“PDF”), and mitigation measures, the Approved Project would result in significant

¹ The California Air Resources Board (“CARB”) approved the SCAQMD’s request to redesignate the SoCAB from serious nonattainment for PM₁₀ to attainment for PM₁₀ under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM₁₀ standards during the period from 2004 to 2007. In June 2013, the Environmental Protection Agency (“EPA”) approved the State of California’s request to redesignate the South Coast PM₁₀ nonattainment area to attainment of the PM₁₀ National AAQS, effective on July 26, 2013.

² CARB has proposed to redesignate the SoCAB as attainment for lead and NO₂ under the California AAQS (CARB 2013).

5. Environmental Analysis

air-quality impacts. Criteria air pollutant impacts of the Approved Project were compared to SCAQMD's significance thresholds.

- **Air-quality Management Plan Consistency:** The Approved Project is consistent with the AQMP because it furthers the objectives of SCAG's regional objectives to increase residential density in close proximity to existing employment and transportation centers.
- **Regional Construction Impacts:** The Certified EIR identified that mass criteria air pollutant emissions generated during construction of the Approved Project of VOC, NO_x, CO, PM₁₀, and PM_{2.5} would be greater than the applicable SCAQMD mass daily thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.
- **Regional Operational Impacts:** For long-term operations, the Certified EIR concluded that regional operational emissions of CO, VOC, NO_x, and PM_{2.5} would exceed SCAQMD's regional significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.
- **Localized Construction Impacts:** The Certified EIR conducted dispersion modeling for the larger Great Park Neighborhoods to determine maximum localized concentrations of CO, NO_x, PM₁₀, and PM_{2.5} emissions at individual offsite sensitive receptor locations during construction. The Approved Project would not result in significant localized impacts on air-quality during construction activities.
- **Localized Operational Impacts:** The Certified EIR demonstrated that there would be no CO exceedances caused by vehicular emissions when idling at intersections; therefore, localized CO "hotspot" impacts of the Approved Project would be less-than-significant.

Although PPPs, PDFs, and mitigation measures included in the Certified EIR would reduce air-quality impacts of the Approved Project to the extent feasible, air-quality impacts were identified as a significant and unavoidable impact of the Approved Project.

5.3.3 Impacts Associated with the Proposed Project

Modeling Methodology

SCAQMD's most recent air-quality analysis model, CalEEMod Version 2013.2.2., was utilized to compare the impacts of the existing entitlements (Approved Project) to the Proposed Project. Resulting operational phase emissions are compared to the significance thresholds adopted by the SCAQMD. Air-quality modeling sheets are included in Appendix B of the Addendum.

Existing Plans, Programs, or Policies and Project Design Features

The following measures are existing plans, programs, or policies ("PPP") and project design features ("PDFs") that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective air-quality impacts. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a

5. Environmental Analysis

super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the measures will be implemented by Heritage Fields and its construction contractors and not directly by the District.

- PPP 3-1 **SCAQMD Rule 201–Permit to Construct:** The SCAQMD requires developers who build, install, or replace any equipment or agricultural permit unit, which may cause new emissions of or reduce, eliminate, or control emissions of air contaminants to obtain a permit to construct from the Executive Officer.
- PPP 3-2 **SCAQMD Rule 402–Nuisance Odors:** The SCAQMD prohibits the discharge of any quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property to be emitted within the SoCAB.
- PPP 3-3 **SCAQMD Rule 403–Fugitive Dust (PM₁₀ and PM_{2.5}):** The SCAQMD prohibits any person to cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that: (a) the dust remains visible in the atmosphere beyond the property line of the emission source; or (b) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook) if the dust emission is the result of movement of a motorized vehicle.
- PDF 4-8 **Building Energy Efficiency:** All projects submitted to the Division of the State Architect (DSA) for plan review must comply with DSA and California Energy Commission (CEC) requirements. Applications submitted on or after July 1, 2014 will need to meet the 2013 Building and Energy Efficiency Standards. The Energy Commission’s 2013 Building Energy Efficiency Standards are 25 percent more efficient than the 2008 standards for residential construction and 30 percent more efficient for nonresidential construction. The 2013 Energy Efficiency Standards, offer builders more efficient windows, insulation, lighting, ventilation systems and other options that would reduce energy consumption in homes and businesses.

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:**Air-quality Plan**

The current air-quality plan for the SoCAB region is the 2012 AQMP, which was adopted December 2012 (SCAQMD 2012). Regional growth projections are used by SCAQMD to forecast future emission levels in the SoCAB. For Southern California, these regional growth projections are provided by the Southern California Association of Governments (“SCAG”) and are partially based on land use designations included in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. The Certified EIR concluded that implementation of the Approved Project would be consistent with the City’s General Plan land use plan, goals, and policies; the City’s Zoning Ordinance, and SCAG’s regional policies; therefore, is consistent with SCAQMD’s AQMP. The Certified EIR identified a K–8 school site within the Project Site boundaries and is consistent with the Approved Project. Consequently, the Proposed Project would be consistent with the City of Irvine General Plan and the AQMP. No changes or new significant information would require major revisions of the Certified EIR.

Regional Construction Impacts

Construction activities associated with both the Approved Project and Proposed Project would result in emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO_x), CO, oxides of sulfur (SO_x), PM₁₀, and PM_{2.5}. The Certified EIR identified that criteria air pollutant emissions generated during construction activities would generate emissions that exceeded the SCAQMD regional construction thresholds. The Approved Project would exceed SCAQMD’s significance thresholds for construction and

5. Environmental Analysis

operation; and would therefore, cumulatively contribute to the nonattainment designations of the SoCAB. Mitigation measures were incorporated into the Certified EIR to reduce impacts, to the extent feasible. However, despite the application of mitigation measures, regional construction emissions associated with the Approved Project would continue to exceed the SCAQMD thresholds.

The Proposed Project is construction and operation of a K-8 school with a capacity of 1,000 students, including other educational infrastructure, within the Great Park Neighborhoods. The Proposed Project would be constructed over an approximately 24-month period. Construction air pollutant emissions are based on the preliminary phasing schedule provided by the District and would include site preparation, building construction, grading, architectural coatings, landscaping, and paving. An estimate of maximum daily construction emissions for the Proposed Project compared to that generated by the Approved Project is provided in Table 2.

Table 2 Maximum Daily Regional Construction Emissions with Mitigation Measures Included in the Approved Project

Construction Phase	Criteria Air Pollutant Emissions (lbs/day) ^{1,2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Approved Project^a						
Maximum Daily Emissions	1,491	2,252	1,595	5	9,204	114
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Threshold	Yes	Yes	Yes	No	Yes	Yes
Proposed Project^{b, 3}						
Site Preparation 2014	<1	<1	1	<1	<1	<1
Grading 2014	2	33	40	<1	5	3
Grading 2015	2	33	40	<1	5	3
Building Construction 2015	2	23	32	<1	3	1
Building Construction 2016	2	22	31	<1	3	1
Paving 2016	1	11	18	<1	1	1
Architectural Coatings 2016	13	1	3	<1	<1	<1
Building + Paving + Coating 2016	16	35	52	<1	4	2
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Comparison to the Approved Project						
Comparison to the Approved Project	-1,444	-1,953	-1,219	-4	-9,157	-86
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

a Irvine 2011.

b CalEEMod Version 2013.2.2

Notes: Totals may not total to 100 percent due to rounding.

Bold = Exceeds SCAQMD Threshold

¹ Construction phasing is based on the preliminary information provided by the District. Where specific information regarding Proposed Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of three times per day (Mitigation Measure AQ1), reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers. Modeling also assumes a VOC of 100 g/L pursuant to SCAQMD Rule 1113 and use of Tier 3 equipment for all phases (Mitigation Measure AQ-2).

5. Environmental Analysis

Table 2 Maximum Daily Regional Construction Emissions with Mitigation Measures Included in the Approved Project

Construction Phase	Criteria Air Pollutant Emissions (lbs/day) ^{1,2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
³ There has been an increase in the total building square footage from 85,500 square feet to 95,500 square feet. The increase in air pollutants due to this change would be nominal and would not cause the construction emissions to exceed the threshold criteria to change the conclusions.						

Grading activities on the approximately 13-acre Project Site would be similar to that identified in the Certified EIR. Unlike the Approved Project, with mitigation identified in the Certified EIR, the Proposed Project would not generate construction emissions that exceed the SCAQMD's regional construction significance thresholds. Therefore, the Proposed Project would not require major revisions to the Certified EIR.

Regional Operational Impacts

Operational activities associated with both the Approved Project and Proposed Project would result in emissions of VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. The Certified EIR identified that criteria air pollutant emissions generated by transportation, energy, and area sources would generate emissions that exceeded the SCAQMD regional operational thresholds for VOC, NO_x, CO, and PM_{2.5}. The Approved Project would exceed SCAQMD's significance thresholds for construction and operation; and would therefore, cumulatively contribute to the nonattainment designations of the SoCAB. Mitigation measures were incorporated into the Certified EIR to reduce impacts to the extent feasible. However, despite the application of mitigation measures, regional operational emissions associated with the Approved Project would continue to exceed the SCAQMD thresholds.

Long-term air pollutant emissions generated by the Proposed Project were modeled with the new CalEEMod 2013.2.2, and compared to the Approved Project are shown in Table 3. As shown in the table, operation of the Proposed Project would not exceed the SCAQMD regional significance thresholds and would generate substantially less criteria air pollutant emissions than identified in the Certified EIR. No changes or new significant information would require major revisions to the Certified EIR.

5. Environmental Analysis

Table 3 Maximum Daily Regional Operational Phase Emissions

Summary	Maximum Daily Emissions (lbs/day)–Winter or Summer					
	VOC	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Approved Project¹						
Approved Project	779	529	3,187	11	105	76
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	No	Yes
Proposed Project²						
Area	7	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	4	4	27	<1	5	1
Total Operational Emissions	10	4	28	<1	5	1
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Comparison to the Approved Project						
Comparison to the Approved Project	-769	-525	-3,159	-11	-100	-75
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

¹ Irvine 2012. Based on the inventory without Optional Conversion, Heritage Fields.

² CalEEMod Version 2013.2.2. Based on highest winter or summer emissions

Note: Totals may not total to 100 percent due to rounding.

Regional Cumulative Impacts

The SoCAB is designated nonattainment for O₃, PM_{2.5}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO₂ and PM₁₀ under the California AAQS.^{3,4} According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993). As described above, the Approved Project would exceed SCAQMD's significance thresholds for construction and operation; and would therefore, cumulatively contribute to the nonattainment designations of the SoCAB. The Proposed Project would not generate regional construction or operational emissions that exceed the SCAQMD regional significance thresholds. Therefore, impacts of the Proposed Project would be less than that identified in the Certified EIR. Mitigation measures were integrated in the Certified EIR to reduce impacts, to the extent feasible. No changes or new significant information would require major revisions to the Certified EIR.

Localized Construction Impacts

The Certified EIR identified that with mitigation, criteria air pollutant emissions generated during construction activities would not exceed the SCAQMD localized thresholds. The highest localized

³ CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM₁₀ to attainment for PM₁₀ under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM₁₀ standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM₁₀ nonattainment area to attainment of the PM₁₀ National AAQS, effective on July 26, 2013.

⁴ CARB has proposed to redesignate the SoCAB as attainment for lead and NO₂ under the California AAQS (CARB 2013d).

5. Environmental Analysis

construction emissions of particulate matter (PM₁₀ and PM_{2.5}) would occur during site preparation and grading activities. While the Proposed Project encompasses a much smaller area than that identified in the Certified EIR, on the Project Site the Approved Project and the Proposed Project would result in similar grading scenarios because the same areas would be graded.

Table 4 shows the maximum daily construction emissions (pounds per day) generated during construction activities for the Proposed Project compared with the SCAQMD's screening level LSTs. Mitigation measures identified in the Certified EIR would ensure localized impacts are less-than-significant for both the Approved Project and the Proposed Project. No changes or new significant information would require major revisions of the Certified EIR.

Table 4 Construction Emissions Compared to SCAQMD's Screening-Level LSTs with Mitigation Measures Included in the Approved Project

Source	Pollutants (lb/day) ^{1,2}			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	25	23	7.7	4.6
3.0-Acre LST	153	1,263	8.0	5.3
Exceeds 3.0-Acre LST?	No	No	No	No
Grading	32	38	4.5	2.7
3.0-Acre LST	153	1,263	8.0	5.3
Exceeds 3.0-Acre LST?	No	No	No	No
Building + Paving + Coating ³	30	37	1.6	1.6
1.3-Acre LST	103	789	4.6	3.3
Exceeds 1.3-Acre LST?	No	No	No	No

Source: CalEEMod Version 2013.2.2., and SCAQMD 2008.

Notes: LSTs are based on potential future sensitive receptors within 82 feet (25 meters). In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the Project Site are included in the analysis.

¹ Construction phasing is based on the preliminary information provided by the District. Where specific information regarding Proposed Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of three times per day (Mitigation Measure AQ-1), reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers. Modeling also assumes a VOC of 100 g/L pursuant to SCAQMD Rule 1113, and use of Tier 3 equipment for all construction activities (Mitigation Measure AQ-2)

³ There has been an increase in the total building square footage from 85,500 square feet to 95,500 square feet. The increase in air pollutants due to this change would be nominal and would not cause the construction emissions to exceed the threshold criteria to change the conclusions.

Localized Operational Impacts

The Certified EIR identified less-than-significant impacts to CO hotspots. At the time of the 1993 SCAQMD Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SCAQMD was designated in attainment for CO under both the California AAQS and National

5. Environmental Analysis

AAQS.⁵ 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). Therefore, CO hotspots are no longer an environmental impact of concern for the Proposed Project. Like the Approved Project, localized air-quality impacts related to the Proposed Project's mobile-source emissions would be less-than-significant. No changes or new significant information would require major revisions to the Certified EIR.

Odor Impact

The Certified EIR identified that the construction and operational activities would not create objectionable odors that would affect a substantial number of people. The Proposed Project would result in school uses, which are compatible in residential areas. The land uses proposed would be similar to that identified in the Certified EIR. The type of facilities that are considered to have objectionable odors include wastewater-treatment plants, compost facilities, landfills, solid-waste transfer stations, fiberglass-manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Odors generated by school are not expected to be significant or highly objectionable and would be required to be in compliance with SCAQMD Rule 402. Likewise, existing facilities are required to be in compliance with SCAQMD Rule 402 to prevent nuisances on sensitive land uses. Therefore, like the Approved Project, impacts related to objectionable odors of the Proposed Project would be less-than-significant. No changes or new significant information would require revisions to the Certified EIR.

5.3.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

Construction Phase

AQ-1 Prior to the start of ~~demolition and~~ construction within the project area, adjacent sensitive receptors shall be informed of the planned demolition and construction activities. Measures to avoid significantly impacting these receptors shall be developed and implemented by the project proponent in coordination with these uses. Other applicable mitigation measures such as erection of fences around construction areas; staggered use of equipment near

⁵ As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide, peak carbon monoxide concentrations in the SoCAB were the result of unusual meteorological and topographical conditions and not of congestion at a particular intersection.

5. Environmental Analysis

sensitive receptors; diversion of truck trips away from receptors; etc.; shall be employed as necessary. Compliance with this measure shall be verified by the ~~Director of Community Development~~ Irvine Unified School District.

AQ-2

~~Prior to the commencement of construction activities required to demolish and/or remove existing DON structures, including runways, the Director of Community Development shall receive and approve a construction emissions mitigation plan from the chosen demolition contractor. Prior to the issuance of grading permits, the applicant of any future development project shall submit, and the Director of Community Development shall approve a construction emissions mitigation plan. The plan shall identify implementation procedures for each of the following emissions reduction measures and all feasible mitigation measures shall be implemented. If certain measures are determined infeasible, an explanation thereof shall be provided. The construction contractor shall take the following measures:~~

- Utilize off-road construction equipment that conforms to Tier 3 of the United States Environmental Protection Agency, or higher emissions standards for construction equipment over 50 horsepower that are commercially available. The construction contractor shall be made aware of this requirement prior to the start of construction activities. Use of commercially available Tier 3 or higher off-road equipment, which is:
 - Year 2006 or newer construction equipment for engines rated equal to 175 horsepower (hp) and greater;
 - Year 2007 and newer construction equipment for engines rated equal to 100 hp but less than 175 hp; and
 - Year 2008 and newer construction equipment for engines rated equal to or greater than 50 hp but less than 100 hp.

The requirement to use such equipment shall be stated on all grading plans. The construction contractor shall maintain a list of all operating equipment in use on the project site. The construction equipment list shall state the makes, models, and numbers of construction equipment on-site.

- Water exposed soils at least three times daily and maintain equipment and vehicle engines in good condition and in proper tune.
- Wash off trucks leaving the site.
- Replace ground cover on construction sites when it is determined that the site will be undisturbed for lengthy periods.
- Reduce speeds on unpaved roads to less than 15 miles per hour.
- Halt all grading and excavation operations when wind speeds exceed 25 miles per hour.

5. Environmental Analysis

- Suspend all emission generating activities during smog alerts.
- Use propane- or butane-powered on-site mobile equipment instead of diesel/gasoline, whenever feasible.
- Properly maintain diesel-powered, on-site mobile equipment.
- Prohibit nonessential idling of construction equipment to five minutes or less in compliance with California Air Resources Board's Rule 2449.
- Sweep streets with SCAQMD Rule 1186 compliant PM₁₀-efficient vacuum units at the end of the day if substantial visible soil material is carried over to the adjacent streets.
- Use electricity from power poles rather than temporary on-site diesel- or gasoline-powered generators, whenever feasible.
- Use of low-VOC asphalt.
- Maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and tarp materials with a fabric cover or other suitable means.
- Provide temporary traffic controls (e.g., flag persons) during all phases of construction to ensure minimum disruption of traffic.
- Schedule construction activities that affect traffic flow on adjoining streets to off-peak hours to the extent possible.
- Reroute construction trucks away from congested streets, whenever feasible.
- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site, whenever feasible.
- Use coatings and solvents with a volatile organic compound (VOC) content lower than required under SCAQMD Rule 1113 (i.e., Super Compliant Paints). All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent applicant efficiency. The construction contractor shall also use pre-coated/natural-colored building, where feasible. Use of low-VOC paints and spray method shall be included as a note on architectural building plans.

Operational Phase

AQ-3 ~~Prior to the issuance of building permits for any future development, the applicant shall submit, and Director of Community Development shall have approved, an operation-emissions mitigation plan. The plan shall identify implementation procedures for each of the~~

5. Environmental Analysis

~~following emissions reduction measures and all feasible mitigation measures shall be implemented. If certain measures are determined infeasible, an explanation thereof shall be provided. The Irvine Unified School District shall implement the following measures, as feasible, at the school.~~

- Utilize built-in energy-efficient appliances to reduce energy consumption and emissions.
- Utilize energy-efficient and automated controls for air conditioners and lighting to reduce electricity consumption and associated emissions.
- Install special sunlight-filtering window coatings or double-paned windows to reduce thermal loss, whenever feasible.
- Utilize light-colored roofing materials as opposed to dark roofing materials to conserve electrical energy for air-conditioning.
- ~~Provide shade trees in residential subdivisions as well as public areas, including parks, to reduce building heating and cooling needs, whenever feasible.~~
- Ensure that whenever feasible, commercial truck traffic is diverted from local roadways to off-peak periods.
- Centralize space heating and cooling. ~~for multiple family dwelling units and commercial space.~~
- Orient buildings north/south for reducing energy-related combustion emissions.
- Use solar energy, when feasible.
- Use high rating insulation in walls and ceilings.

AQ-4

~~Prior to the issuance of building permits, the applicant shall demonstrate to the satisfaction of the Director of Community Development that future employment generating nonresidential development~~ The Irvine Unified School District shall implement an employee commute trip reduction ~~include~~ measures to reduce vehicle trips including: the promotion of carpool incentives such as preferred parking and alternative work schedules, easy access to public transit systems, trail linkages between uses, low emissions vehicles fleets, and the provision of on site facilities such as banking and food courts, and bicycle parking facilities, and other transportation demand management measures, as deemed appropriate.

5.4 BIOLOGICAL RESOURCES

5.4.1 Environmental Setting

The Certified EIR described the biological resources within Combined Planning Area 51, including 995 acres of land retained in federal ownership and designated as habitat reserve and a part of the Orange County

5. Environmental Analysis

Central-Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (“NCCP/HCP”). The areas outside the habitat reserve were described as: 1) providing minimal native or undisturbed habitat; and 2) consisting of agricultural, ornamental, and domestic landscapes.

The Project Site has been mass graded and is currently vacant. The Project Site was previously developed for base administrative purposes including the base library, auditorium, and chapel. A small portion of two buildings used as enlisted quarters were located on the northwest side of the Project Site and a portion of the chapel administrative office was located on the southeast corner.

5.4.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR identified nine vegetative communities within the Approved Project Area including Venturan-Diegan sage scrub, southern cactus scrub, chaparral, woodland, riparian scrub, grassland, open water, agriculture, and disturbed or developed areas. Several sensitive plant species and large number of mature trees also were identified as potentially occurring within the Approved Project Area. However, impacts to biological resources, including, but not limited to, impacts to tarplant, a federal species of concern, and coastal sage scrub that provide habitat for California gnatcatchers, were concluded as less-than-significant with mitigation. The Certified EIR provides for a large amount of offsite land designated for habitat preservation to be protected in perpetuity under the NCCP/HCP and Implementation Agreement. Approximately 974 acres in 1.4 Preservation zoning district of Combined PA 51, have been designated as a habitat preserve in accordance with the Orange County Central-Coastal NCCP. The habitat preserve has been conveyed to the Federal Aviation Administration (“FAA”), and it is expected that it will be managed in the future by the US Fish and Wildlife Service. The Certified EIR also provides for wildlife corridors and drainage corridors within Combined PA 51 that would aid wildlife movement. Therefore, the Certified EIR concluded that adequate protection for biological resources has been provided and impacts would be less-than-significant. The Certified EIR did not identify the Project Site as having substantial biological resources and did not designate it as part of habitat preservation area.

5.4.3 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/No Changes or New Information Requiring Preparation of an EIR	No Impact
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:

The Project Site was previously developed with military base administrative uses such as auditorium, library, chapel, and chapel administrative office. The surrounding uses included a mixture of abandoned and razed buildings, former base roadways, and demolition debris piles. The Project Site and surrounding areas have been mass graded and does not contain any biological resources. The Project Site is in District 1 North, where VTTM 17283A has been approved under the Certified EIR. The 413.7-acre, VTTM 17283A includes various single- and multi-family residential units and nonresidential uses such as a K-8 school, church, R&D, retail, multiuse, and child care, and is not part of any habitat conservation area. The Project Site does not include special-status species or natural-sensitive habitats that result in significant biological resources impact. The Project Site is in 8.1 Trails and Transit Oriented Development, and is not part of any wildlife corridor. Therefore, the Proposed Project would not conflict with any local policies, ordinances, or adopted habitat conservation plans. As stated in the Certified EIR, the Proposed Project would not result in any significant

5. Environmental Analysis

biological impacts. No change in biological conditions would occur under the Proposed Project and the significance conclusion under the Certified EIR would remain unchanged.

5.4.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to biological resources that are applicable to the Proposed Project were identified in the Certified EIR.

5.5 CULTURAL RESOURCES

5.5.1 Environmental Setting

The OCGP Final Environmental Impact Report (FEIR) reported the presence of 10 prehistoric archaeological sites and eight isolated prehistoric artifacts that have been recorded in the northeastern habitat preserve portions of the Combined PA 51. These sites are generally on the ridges between Borrego Canyon Wash and the Agua Chinon Wash.

5.5.2 Summary of Impacts Identified in the Certified EIR

Impacts to historical resources were identified as less-than-significant in the Certified EIR. Structures on the former MCAS El Toro base were evaluated and found not to be eligible for listing on the National Register of Historic Places (NRHP), or as Legacy Cold War sites (the Legacy Cold War Project aids in the preservation of properties and objects from the Cold War period, 1945-1991).

Impacts to archaeological and paleontological resources were also found to be less-than-significant. Although a total of four isolated findings (Iso-1 through Iso-4), five archaeological sites, and three paleontological sites were identified in the Certified EIR, they were found in or near the habitat preservation portion (1.4 Preservation zoning district) of Combined PA 51. Although no archaeological and paleontological resources were identified in the planning areas designated for urban development, the Certified EIR incorporated mitigation measures to ensure that impacts from potential discovery of deeply buried subsurface artifacts are reduced to a less-than-significant level.

5.5.3 Impacts Associated with the Proposed Project

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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

Comments:

The Project Site is in the District 1 North of the Approved Project Area and it has been mass graded under the approved VTTM 17283A. The District would receive the Project Site from Heritage Fields in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. Therefore, no historical, archaeological, or paleontological resources impacts would occur. No changes or new information resulting in change to the significance conclusion of the Certified EIR would occur. The impacts would remain less-than-significant.

5.5.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

Impacts to cultural resources are less-than-significant, and no mitigation measures are required.

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

CULT-1 Monitoring of excavation and grading activities associated with future development in Combined PA 51 shall be conducted by a certified archaeologist in accordance with the archaeological report ~~required in Mitigation Measure CULT-1~~. If resources are encountered in the course of ground disturbance, the archaeological monitor shall be empowered to halt grading and to initiate an archaeological testing program. The testing shall include

5. Environmental Analysis

recordation of artifacts, controlled removal of the materials, and an assessment of their importance under CEQA and the City's local guidelines. ~~Compliance with this measure shall be verified by the Community Development Department.~~

CULT-2 Prior to the issuance of grading permits and/or building permits for any future development in Combined PA 51, a detailed mitigation program shall be submitted by the applicant to the City of Irvine to address archaeological resources discovered during grading. Provisions of the program shall include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be a unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation shall be available. Work may continue on other parts of the construction site while archaeological resource mitigation takes place. The City of Irvine has standard conditions applied prior to the issuance of grading permits when a project includes potentially significant archaeological sites. These include retaining a qualified archaeologist, establishing procedures for cultural and scientific resource surveillance, and protection of any resources discovered during the grading process. ~~Compliance with this measure shall be verified by the Community Development Department.~~

CULT-3 Prior to the issuance of any grading and/or building permits, a mitigation program shall be submitted by the developer to the City of Irvine to address the accidental discovery of recognition of any human remains. The program shall include the following:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
- The county coroner must be contacted to determine that no investigation of the cause of death is required, and
- If the coroner determines the remains to be Native American:
- The coroner shall contact the Native American Heritage Commission within 24 hours.
- The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
- The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for the means of treating or disposing of, with appropriated dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

5. Environmental Analysis

- The Native American heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
- The descendant identified fails to make a recommendation; or
- The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage commission fails to provide measures acceptable to the landowner.

~~Compliance with this measure shall be verified by the Community Development Department.~~

5.6 GEOLOGY AND SOILS

This section of the Addendum is based, in part, upon the following document:

- Geologic and Environmental Hazard Assessment report for Proposed Irvine Unified School District K8 School–Great Park, PlaceWorks, March 2013.

5.6.1 Environmental Setting

The Approved Project Area, including the Project Site, does not lie within or immediately adjacent to a fault-rupture hazard zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. The nearest active faults are Whittier-Elsinore Fault and Newport-Inglewood Fault, within 14 miles of the Project Site.

The topography of the Approved Project Area is nearly flat and gently sloping down to the west to southwest with elevation ranging from 450 feet above mean sea level (msl) to 200 feet above msl. The Seismic Response Areas (SRA) designations are used by the City to assess the geologic and seismic risk associated with potential development. A majority of Combined PA 51 is within SRA-2 (denser soils/deeper groundwater) and is considered suitable for development, except for the planned development area north of Irvine Boulevard, which is designated SRA-3 (alluvium/shallow bedrock) and also susceptible to ground motion.

5.6.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR determined that the risk of surface rupture of a fault affecting the Approved Project would be low due to the lack of active faults crossing through or projecting into the Approved Project Area. The Certified EIR also found that hazards from strong ground shaking, liquefaction, unstable geologic conditions, expansive soils, landslide, and soil erosion would be less-than-significant provided that mitigation measures in the Certified EIR and recommended measures per the City's Grading Ordinance are implemented.

5.6.3 Impacts Associated with the Proposed Project

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Project Site is located within the Approved Project Area, within the approved VTTM17283A. As stated in the Certified EIR, the Project Site is not underlain by an active earthquake fault and the potential for fault rupture at the Project Site is considered negligible. Additionally, the Project Site has been previously developed with military-base administrative uses and is not identified as geologically hazardous site by the City of Irvine General Plan Safety Element and Seismic Element. Although the Project Site could be affected by the nearby active faults, geologic impacts associated with the Proposed Project would not be substantially greater than any other site seismically active Southern California. Moreover, standard engineering design practices would mitigate ground-motion impacts to a less-than-significant level. Potential impacts from

5. Environmental Analysis

liquefaction and other unstable geologic conditions would be mitigated to a less-than-significant level by standard engineering practice and impacts would not be greater than those identified in the Certified EIR. As stated in the Certified EIR, the Project Site is in SRA-2 (Seismic Response Areas) by the City of Irvine General Plan Seismic Element and soils in this area has denser soils and deeper groundwater that are well suited for grading and construction. Therefore, no significant impacts from landslide, lateral spreading, subsidence, liquefaction, or collapse are anticipated. As required, the proposed K-8 school would be designed in accordance with the seismic requirements of the California Building Code (CBC), Title 24, California Code of Regulations. In addition, a comprehensive geotechnical evaluation, including development specific subsurface exploration and laboratory testing, are required prior to design and construction of any school structures, and recommendations contained therein would be implemented, as required. Therefore, compared to the Certified EIR, no changes to the significance threshold conclusions related to geology and soils would result from the Proposed Project implementation.

Exposed soil surface during construction phase of the Proposed Project would result in increased wind and water erosion. However, these activities would be regulated by the Regional Water Quality Control Board requirement to prepare and implement a Storm Water Pollution Prevention Plan. After construction is completed, no exposed soils are anticipated and soil erosion impacts would not occur.

5.6.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

Impacts to geology and soils are less-than-significant, and no mitigation measures are required.

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

- GS-1 Prior to issuance of a grading permit, detailed geotechnical and hydrology reports shall be prepared prior to any development approval or grading activities. These reports shall specifically address erosion control and surface runoff for both construction and long-term operations on the site. Recommendations contained in these reports to prevent soil erosion, siltation, and debris influx into the drainage system shall be implemented. ~~Compliance with this measure shall be verified by the Community Development Department.~~

5. Environmental Analysis

5.7 GREENHOUSE GAS EMISSIONS

5.7.1 Environmental Setting

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as Greenhouse Gas (GHG), to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).^{6,7}

5.7.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR stated that the Approved Project's GHG emissions inventory would be below the SCAQMD's efficiency metric, resulting in less-than-significant impacts on GHG emissions, and that the Approved Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Therefore, the Certified EIR concluded that the Approved Project would result in less-than-significant GHG emissions impacts.

5.7.3 Impacts Associated with the Proposed Project

Modeling Methodology

SCAQMD's most recent air-quality analysis model, CalEEMod Version 2013.2.2., was utilized to compare the impacts of the existing entitlements (Approved Project) to the Proposed Project. Resulting GHG emissions are compared to the significance thresholds adopted by the SCAQMD. GHG modeling sheets are included in Appendix B.

Existing Plans, Programs, or Policies and Project Design Features

The following measures are existing plans, programs, or policies ("PPP") and project design features ("PDFs") that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective GHG impacts. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the

⁶ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

⁷ Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels. Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2013).

5. Environmental Analysis

measures will be implemented by Heritage Fields and its construction contractors and not directly by the District

- PPP 4-3 **Building and Energy Efficiency Standards (CCR Title 24):** Development plans are required to demonstrate that the project meets the 2013 Building and Energy Efficiency Standards. Commonly known as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2013 standards are approximately 25 percent more energy efficient than the 2008 standard for residential buildings and approximately 30 percent more energy efficient for nonresidential buildings than the 2008 standards. Plans for the Proposed Project are reviewed and approved by the Division of the State Architect prior to issuance of building permits. Design strategies to meet this standard may include maximizing solar orientation for daylighting and passive heating/cooling, installing appropriate shading devices and landscaping, utilizing natural ventilation, and installing cool roofs. Other techniques include installing insulation (high R value) and radiant heat barriers, low-e window glazing, or double-paned windows.
- PPP 4-4 **Title 24 Code Cycles: Net-Zero Buildings (Residential & Nonresidential):** The California Public Utilities Commission (CPUC) adopted its Long-Term Energy Efficiency Strategic Plan on September 18, 2008, presenting a roadmap for all new residential and commercial construction to achieve a zero-net energy standard. This Plan outlines the goal of reaching zero net energy in residential construction by 2020 and in commercial construction by 2030. Achieving this goal will require increased stringency in each code cycle of California's Energy Code (Title 24).
- PPP 4-5 **California Renewable Portfolio Standard:** CARB's Renewable Portfolio Standard ("RPS") is a foundational element of the State's emissions reduction plan. In 2002, Senate Bill 1078 established the California RPS program, requiring 20 percent renewable energy by 2017. In 2006, Senate Bill 107 advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II. On September 15, 2009, Governor Arnold Schwarzenegger signed Executive Order S-21-09 directing CARB to adopt regulations increasing RPS to 33 percent by 2020. These mandates apply directly to investor-owned utilities, which in the case of the Proposed Project is Southern California Edison ("SCE").
- PPP 3-4 **California Low Carbon Fuel Standard:** On January 18, 2007, Governor Arnold Schwarzenegger issued Executive Order S-1-07 requiring the establishment of a Low Carbon Fuel Standard ("LCFS") for transportation fuels. This statewide goal requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020. Regulatory proceedings and implementation of the LCFS have been directed to CARB. The LCFS has been identified by CARB as a discrete early action item in the Scoping Plan. CARB expects the LCFS to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Scoping Plan work in tandem with one another. To

5. Environmental Analysis

avoid the potential for double-counting emission reductions associated with AB 1493 (Pavley), the Scoping Plan has modified the aggregate reduction expected from the LCFS to 9.1 percent.

- PPP 4-7 **Federal Corporate Average Fuel Economy (“CAFE”) Standards:** The 2007 Energy Bill creates new federal requirements for increases in fleetwide fuel economy for passenger vehicles and light trucks. The federal legislation requires a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase in requirements to achieve this goal. Analysis by CARB suggests that this will require an annual improvement of approximately 3.4 percent between 2008 and 2020.
- PPP 4-8 **California Assembly Bill 1493–Pavley Standards:** On July 22, 2002, Governor Gray Davis signed Assembly Bill 1493 requiring CARB to develop and adopt regulations designed to reduce greenhouse gases emitted by passenger vehicles and light-duty trucks beginning with the 2009 model year. The standards set within the Pavley regulations are expected to reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016. California had petitioned the USEPA in December 2005 to allow these more stringent standards and California executive agencies have repeated their commitment to higher mileage standards. On July 1, 2009, the USEPA granted California a waiver that will enable the state to enforce stricter tailpipe emissions on new motor vehicles.
- PPP 4-9 **SB 375:** SB 375 requires the reduction of GHG emissions from light trucks and automobiles through land use and transportation efforts that will reduce vehicle miles traveled (“VMT”). In essence, SB 375’s goal is to control GHGs by curbing urban sprawl and through better land use planning. SB 375 essentially becomes the land use contribution to the GHG reduction requirements of AB 32, California’s global warming bill enacted in 2006. The Approved Project is consistent with SB 375 strategies to reduce VMT and associated GHG emissions in that it represents a compact, mixed-use development, improves the jobs-housing balance in the city of Irvine and the Orange County Council of Governments Subregion, and provides access to mass transit. According to SCAG’s 2008 Regional Comprehensive Plan, SCAG’s Land Use and Housing Action Plan can be expected to result in a 10 percent reduction in VMT in 2035 when compared to current trends.
- PPP 4-11 **Comprehensive Signal Retiming and Coordination Program:** Emissions are highest at the lowest travel speeds. The City of Irvine is currently retiming and coordinating signals throughout Irvine under its ITEMS (Irvine Traffic Engineering System) program. A program to retime and coordinate traffic signals would produce more even traffic flows, so that vehicles are not starting and stopping constantly. These types of programs can improve vehicular level of service (“LOS”), thereby decreasing emissions for the same volume of vehicles.
- PPP 4-12 **Waste Reduction:** The City of Irvine adopted a Zero Waste program in 2007 to approach waste management. The City recovers approximately 66 percent of its waste for recycling

5. Environmental Analysis

and composting, which exceeds the state's AB 939 waste diversion goals. Furthermore, waste haulers establish rate schedules according to bin size and frequency of collection. Commercial customers that subscribe to smaller bins (e.g., 2 cubic-yard bins) are routinely charged less by haulers. This pricing structure encourages waste reduction and recycling, and tends to minimize hauler pickups. The Proposed Project is required to provide on-site recycling facilities at the school consistent with Assembly Bill 341.

PDF 4-3 **Low-Flow Fixtures:** The Proposed Project would incorporate low-flow water fixtures that meet the requirements of the California Green Building Standards Code (CALGreen) standards. Toilets, urinals, sinks, showers, and other water fixtures installed on-site shall be low-flow water fixtures that meet the CALGreen standards.

PDF 4-4 **Landscaping and Irrigation Systems:** The California Water Conservation in Landscaping Act of 2006 ("AB 1881") includes provisions to reduce the wasteful, uneconomic, inefficient, and unnecessary consumption of water. The Proposed Project is required to incorporate automated, high-efficiency landscaping irrigation systems that reduce water use, such as evapotranspiration "smart" weather-based irrigation controllers, and bubbler irrigation; low-angle, low-flow spray heads; moisture sensors; and use of a California-friendly landscape palette.

PDF 4-5 **Use of Reclaimed Water on All Master Landscaped Areas:** Prior to approval of landscape plans, the Irvine Unified School District shall submit evidence to the satisfaction of the Irvine Ranch Water District ("IRWD") that the landscape plans incorporate the use of reclaimed water in all master landscaped areas (e.g., master landscaped commercial, multifamily, common, roadways, and park areas). Master landscapes shall also incorporate weather-based controllers and efficient irrigation system designs to reduce overwatering, combined with the application of a California-friendly landscape palette. The Proposed Project would utilize reclaimed water for outdoor irrigation needs.

PDF 4-6 **Material Recovery:** The Proposed Project incorporates measures to reduce waste generated by Proposed Project Site occupants and visitors, and to encourage recycling of solid wastes, utilizing the Orange County Integrated Waste Management Department's material recovery facilities to recycle glass, plastic, cans, junk mail, paper, cardboard, greenwaste (e.g., grass, weeds, leaves, branches, yard trimmings, and scrap wood), and scrap metal. Future employees and students would participate in these programs. These measures include the requirement to include on-site recycling facilities at the school consistent with Assembly Bill 341.

PDF 4-8 **Building Energy Efficiency:** All projects submitted to the Division of the State Architect (DSA) for plan review must comply with DSA and California Energy Commission (CEC) requirements. Applications submitted on or after July 1, 2014 will need to meet the 2013 Building and Energy Efficiency Standards. The Energy Commission's 2013 Building Energy Efficiency Standards are 25 percent more efficient than the 2008 standards for residential construction and 30 percent more efficient for nonresidential construction. The 2013

5. Environmental Analysis

Energy Efficiency Standards, offer builders more efficient windows, insulation, lighting, ventilation systems and other options that would reduce energy consumption in homes and businesses.

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

Operational activities associated with both the Approved Project and Proposed Project would result in GHG emission from transportation, energy use, water use and wastewater generation, solid waste disposal, and area sources. The Approved Project would not exceed SCAQMD's efficiency metric of 4.8 metric tons of carbon dioxide-equivalent (MTCO₂e) emissions. GHG emissions impacts of the Approved Project were identified as less-than-significant.

Annual GHG emissions were calculated for operation of the Proposed Project (see Appendix B) and compared to the Approved Project, as shown in Table 5. Like the Approved Project, the Proposed Project would not exceed the SCAQMD's GHG significance thresholds. Therefore, the Proposed Project would not result in new or substantially greater impacts related to GHG emissions and preparation of a supplemental or subsequent EIR is not required by CEQA.

Table 5 GHG Emissions Inventory

Summary	MTCO ₂ e per Year		
	Approved Project ^a	Proposed Project ^b	Comparison
Area	6,294	<1	-6,294
Energy	41,345	212	-41,134
Water/Wastewater	3,027	23	-3,004
Waste	4,005	46	-3,959
Transportation	107,735	568	-107,167
Construction Amortized ¹	3,214	42	-3,172
Vegetation Amortized ³	-952	—	952
Total	164,669	890	-163,779

5. Environmental Analysis

Table 5 GHG Emissions Inventory

Summary	MTCO ₂ e per Year		
	Approved Project ^a	Proposed Project ^b	Comparison
SCAQMD Bright Line Threshold	NA	3,000 MTCO ₂ e	3,000 MTCO ₂ e
Exceeds SCAQMD Bright Line Threshold	NA	No	No
Service Population	36,829	1,070	—
MTCO ₂ e/SP	4.47	0.83	—
SCAQMD Threshold	4.8 MTCO ₂ e/SP	4.8 MTCO ₂ e/SP	—
Exceeds Threshold?	No	No	—

Sources:

a Irvine 2012, Appendix D2. Based on the inventory without Optional Conversion, Heritage Fields.

b CalEEMod Version 2013.2.2.

Note: Totals may not total to 100 percent due to rounding. NA: not applicable.

¹ Construction and Vegetation emissions/sequestration are amortized over a 30-year period.

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's 2012 RTP/SCS. A consistency analysis with 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 ("LCFS"), California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the corporate average fuel economy ("CAFE") standards, and other early action measures would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. In addition, new buildings constructed are required to comply with the most recent Building and Energy Efficiency Standards and California Green Building Code (CALGreen). The Proposed Project's GHG emissions would be reduced through compliance with statewide measures that have been adopted since AB 32 was adopted. Because the Proposed Project would not conflict with the above statewide strategies identified to implement the CARB Scoping Plan, no new or substantially greater impacts would occur.

SCAG's 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. SCAG's 2012 Regional Transportation Plan/Sustainable Communities Strategy ("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 Proposed Project is consistent with the General Plan land use designations and zoning and would not interfere with SCAG's ability to implement the regional strategies outlined in the 2012 RTP/SCS. No changes or new significant information would change the significance conclusions of the Certified EIR; no new or substantially greater impacts would occur.

5. Environmental Analysis

5.7.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Certified EIR determined that no significant impacts related to GHG emissions would result from the Approved Project. Accordingly, no mitigation measures were identified.

5.8 HAZARDS AND HAZARDOUS MATERIALS

The following analysis was prepared based, in part, the following report and information incorporated therein:

- Phase I Environmental Site Assessment for Proposed Irvine Unified School District K-8-Great Park, PlaceWorks, December 2012.
- Draft Preliminary Environmental Assessment Workplan for Proposed Irvine Unified School District K-8-Great Park, PlaceWorks, February 2014.

5.8.1 Environmental Setting

The Project Site currently consists of a mass-graded, 13-acre site on the former MCAS El Toro base. The site historically was used by MCAS El Toro for administrative purposes and included buildings that were used for the base auditorium, library, chapel and three additional buildings that were demolished prior to the closure of the base. The Project Site is surrounded by the former military base in an area that was primarily used for housing and administrative base services. The area to the north of the Project Site had a veterinary clinic, kennel, dog run, obstacle course, and an automobile hobby shop. A gymnasium and a self-service carwash were to the east of the Project Site. The chapel administrative office and buildings used as storage were South of the project site. Enlisted quarters were to the west of the site. The buildings have been demolished as part of the decommissioning activities at the former base, and the Project Site has been mass graded.

Based on a review of base closure documents, and a review of historical aerial photographs and topographic maps, the Project Site was vacant undeveloped land in the 1930s. Buildings were located on the majority of the site by the mid-1940s and the western portion of the site was developed with a parking lot in the 1960s followed by enlisted quarters in the early 1980s. Three buildings were identified in closure reports on the site (library, chapel, and auditorium). Historically, there were four additional buildings that had been located on the site that were removed before 1990 including the original chapel that was destroyed by a plane crash during an air show.

Hazardous Materials and Wastes

An Environmental Baseline Survey (“EBS”) for MCAS was prepared in support of the base closure in 1995 in compliance with the provisions of the Community Environmental Response Facilitation Act (“CERFA”). CERFA amends Section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), and was enacted to facilitate the rapid return of uncontaminated properties to local communities during the (BRAC) process. The proposed K-8 school site is located in Navy Sale Parcel I and was found suitable to transfer as part of the Finding of Suitability to Transfer (FOST# 1) in July 2004.

5. Environmental Analysis

The Phase I Environmental Site Assessment (Phase I) for the Proposed Project identified the agricultural activities as a recognized environmental condition. The Project Site was used for agricultural purposes prior to the acquisition of the land for the base in 1942 and agriculture continued on the western portion of the proposed school site until the 1960s. Lead testing in soil near the base of two former buildings reported concentrations above the California Human Health Screening Level (CHHSL) for lead. The Phase I identified the following as historical recognized environmental conditions or suspect environmental conditions:

- 11 former underground storage tanks (USTs) located on the Project Site.
- 1 former Oil/Water Separator.
- Buildings were located on the site that required testing for organochlorine pesticides for potential residual termiticides and additional testing to assess for potential lead-based paint in soil.
- Imported fill material was used to backfill the tank excavations.
- Three groundwater plumes from historic base operations were identified as having been located within approximately a 1.2 mile radius of the proposed school site.

5.8.2 Summary of Impacts Identified in the Certified EIR

Hazardous Materials and Wastes

The Certified EIR analyzed the impacts of hazardous materials and wastes associated with the Approved Project Area, and disclosed the significant impacts of developing the Approved Project. The Certified EIR also indicated that no significant impacts are associated with the nearby Installation Restoration Program (IRP) sites. The Project Site is near IRP Sites 20 and 25. The following describes potential impacts identified in the Approved Project Area by the Certified EIR. It should be noted that the demolition and abatement activities have been completed and related environmental concerns have been addressed.

- Construction activities involving demolition in the Approved Project Area as the Approved Project Area develops may result in the disturbance of structures and soils containing asbestos-containing building materials (“ACM”) and lead-based paint.
- IRP Site 24 is located in the 6.1 Institutional, 1.9 Great Park, and 8.1 TTOD-zoning districts. The site may be conveyed with temporary restrictions on use.
- Future uses of IRP Sites 3 and 5 may be potentially constrained by the implementation of institutional controls.
- IRP Site 16 (Crash Crew Pit No. 2) is located in the 1.9 Orange County Great Park zoning district. The site may be conveyed with temporary restrictions on use that are not appropriate for recreational land uses.

Emergency Plans

The Certified EIR determined that the Approved Project would not be expected to interfere with emergency response and evacuation plans on the basis that other sites within Orange County are already designated as emergency staging areas, and portions of the Approved Project Area would remain available for use by non-

5. Environmental Analysis

aviation emergency response equipment. Accordingly, the Certified EIR concluded that while major portions of the Approved Project Area would be developed, sufficient acreage is expected to remain within preservation areas and the Great Park to allow for emergency staging operations. Therefore, residential and nonresidential uses were found to not result in a significant impact related to emergency response and evacuation plans.

Wildland Fires

The Certified EIR concluded that potential hazards impact from wildland fire within the Approved Project Area is limited to the NCCP Reserve, Approved Wildlife Corridor Feature, and Recreational areas in the northeastern portion of Combined PA 51. The Project Site is not located in or near these high fire-hazard areas.

5.8.3 Impacts Associated with the Proposed Project

Existing Plans, Programs, or Policies

The following measures are existing plans, programs, or policies (“PPP”) and project design features (“PDFs”) that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective hazards and hazardous materials impacts. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the measures will be implemented by Heritage Fields and its construction contractors and not directly by the District.

PPP 5-1 If any underground storage tanks (“USTs”) are encountered during site grading and excavation activities, they shall be removed in accordance with the existing standards and regulations of, and oversight by, the Orange County Health Care Agency (“OCHCA”), based on compliance authority granted through the California Code of Regulations, Title 23, Division 3, Chapter 16, Underground Tank Regulations. The process for UST removal is detailed in the OCHCA’s “Underground Storage Tanks: The Basics.” Soil samples from areas where storage tanks have been removed or where soil contamination is suspected shall be analyzed for hydrocarbons including gasoline and diesel in accordance with procedures set forth by OCHCA. If hydrocarbons are identified in the soil, the appropriate response/remedial measures will be implemented as directed by OCHCA with support review from the Regional Water Quality Control Board until all specified requirements are satisfied and a Tank Closure Letter is issued. Any aboveground storage tank (“AST”) in existence at the commencement of site development shall be removed in accordance with all applicable regulations under the oversight of Orange County Fire Authority. Compliance requirements relative to the removal/closure of storage tanks are set forth through the California Health and Safety Code, Sections 25280 through 25299.

5. Environmental Analysis

- PPP 5-2 During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision(s) of the California Health and Safety Code.
- PPP 5-3 Prior to approval of a conditional use permit, project applicants shall prepare a Fire Master Plan for submittal to the Orange County Fire Authority (“OCFA”) consistent with OCFA Guideline B-09 (Fire Master Plans for Commercial and Residential Development).
- PPP 5-4 Federal law requires compliance with Rule 29 of the Code of Federal Regulations (“CFR”) Part 1926. Prior to site demolition activities, building materials shall be carefully assessed for the presence of lead-based paint, and its removal, where necessary, must comply with state and federal regulations, including Occupational Safety and Health Administration (“OSHA”) 29 CFR Part 1926. The OSHA Rule establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation of monitoring. Furthermore, the requirements of California Code of Regulations, Title 17, Division 1, Chapter 8, identify procedures that must be followed for accreditation, certification, and work practices for lead-based paint and lead hazards. Section 36100 thereof specifically sets forth requirements for lead-based paint abatement in public and residential buildings.
- PPP 5-5 Prior to site demolition activities, building materials must be carefully assessed for the presence of asbestos-containing materials (“ACM”), and removal of this material, where necessary, must comply with state and federal regulations, including SCAQMD Rule 1403, which specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of ACMs. The requirements for demolition and renovation activities include asbestos surveying; notification; ACM removal procedures and time schedules; ACM handling and cleanup procedures; and storage, disposal, and landfill disposal requirements for asbestos-containing waste materials.
- PPP 5-6 During site decommissioning and demolition activities, hazardous wastes must be managed in accordance with the requirements of Title 22, Division 4.5 of the California Code of Regulations. Title 22 sets forth the requirements with which hazardous-waste generators, transporters, and owners or operators of treatment, storage, or disposal facilities must comply. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste such as the

5. Environmental Analysis

requirements for transporting shipments of hazardous waste, manifesting, vehicle registration, and emergency accidental discharges during transportation.

PPP 5-7 During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1529, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to asbestos. Asbestos-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision(s) of the California Health and Safety Code.

PPP 5-8 Evidence of soil and/or groundwater contamination (e.g., chemical odors, staining) unrelated to above/underground storage tank releases may be encountered during site development. The appropriate agency (e.g., OCHCA, DTSC, or the RWQCB) shall be notified if these conditions are encountered during construction or grading activities. With their oversight, an environmental site assessment shall be completed and a determination shall be made as to whether cleanup is required. Cleanup activities are required to be consistent with all applicable federal, State and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil and/or groundwater reveal levels of contamination below the standards established by the oversight agency. Alternatively, a risk assessment may be prepared for the site to determine that there are no human or environmental risks associated with leaving contamination below specific levels in place. Construction in the impacted area shall not proceed until a “no further action” clearance letter or similar determination is issued by the oversight agency, or until a land use covenant is implemented.

IUSD Plans, Programs, and Policies

The following measures are additional PPPs that are required for the proposed K–8 school project that will help to reduce and avoid potential impacts related to hazards and hazardous materials. The District, as a lead agency, is responsible for ensuring that these measures are implemented.

IUSD 8-1 California Education Code Section 17213.1 requires that the District follow a prescribed environmental review process with oversight by the Department of Toxic Substances Control (DTSC). As a requirement of eligibility for state funding, school districts must contract with a qualified environmental consultant to prepare a Phase I Environmental Site Assessment (Ed. Code, §17210, subsec. (b) and §17213.1, subsec. (a)). The school district submits this assessment for DTSC review, comment, and approval. When a Phase I Environmental Site Assessment reveals recognized environmental conditions, a Preliminary Environmental Assessment (PEA) is required to evaluate potential threats to human health or the environment. The PEA includes collection of environmental samples and evaluation of potential health risks. The assessment includes preparation of a work plan, collection and analysis of environmental samples, and preparation of a PEA report (Ed. Code, §17210, subsec. (b) and §17213.1, subsec. (a)(4)(B)). The PEA report includes results of environmental sampling and a health risk assessment conducted according to DTSC

5. Environmental Analysis

guidelines (Ed. Code, §17213.1, subsec. (a)(4)(B)). As required by the Education Code (Ed. Code, §17213.1, subsec. (a)(6)), school districts must make the report available for public review and comment before DTSC's final determination. DTSC is required to approve or disapprove the Preliminary Environmental Assessment Report within 30 days of close of public review period (Ed. Code, §17213.1, subsec. (a)(6)(A)) or within 30 days of the school district's approval of the Environmental Impact Report for the school (Ed. Code, §17213.1, subsec. (a)(6)(B)). If the assessment identifies no significant health or environmental risks, the school district will receive a "No Further Action" determination letter from DTSC (Ed. Code, §17213.1, subsec. (a)(9)) and the process is complete. If the assessment identifies potential contamination, further action will be required. Prior to acquiring the Site, and as a condition of receiving State funding, the District is required to obtain site approval from DTSC, indicating that the Site does not pose a risk to human health or the environment, and that "no further action" is required with respect to the investigation or remediation of any hazardous substances.

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/No Changes or New Information Requiring Preparation of an EIR	No Impact
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:

The Proposed Project would involve the development and operation of a new K–8 school. Public school operations are not associated with routine transportation, use, or disposal of significant amounts of hazardous materials. The use of cleaners, solvents, paints, and other janitorial products for building maintenance be utilized in relatively small quantities and would be stored in compliance with established state and federal requirements. These materials would be used in accordance with normal operational safety practices, as employed at other school facilities within the District. Therefore, implementation of the Proposed Project would not create significant hazard to the public or the environment.

To determine the potential for significant air pollution levels from stationary sources of emissions in the Project Site vicinity, the South Coast Air-quality Management District (“SCAQMD”) Facility Information Detail (“FIND”) website was accessed to perform a “grid search” for facilities within a quarter mile radius of the Project Site. The online search did not identify any facilities with the potential to emit hazardous or acutely hazardous air emissions. In addition, a reconnaissance of the area indicated that manufacturing facilities were not located in the vicinity of the Site. Therefore, no impact is anticipated to the project site.

Based on the results of the Phase I, the District prepared a PEA under the oversight of the DTSC to further investigate the following issues and remediate as necessary:

- The Project Site was used for agricultural purposes prior to the acquisition of the land for the base in 1942 and agriculture continued on the western portion until the 1960s.
- The Project Site contains former fuel oil tanks that were used for heating buildings constructed in the 1940s and one oil/water separator. Imported fill material was also used to backfill the tank excavations.

5. Environmental Analysis

- Possible impacts from groundwater plumes; and
- Possible impacts from termiticides and lead-based paint (LBP) from the former structures.

Pursuant to California Education Code Section 17213.1, the District is required to follow a prescribed environmental review process with oversight by the DTSC. Compliance with IUSD 8-1 would ensure that the project site does not pose a risk to human health or the environment. The PEA prepared for the project site recommended a “no further action” and it has been submitted to DTSC for review and approval. Therefore, based on prior regulatory approvals, and the required for further environmental regulatory review for school sites, a less-than-significant impact is anticipated.

No aboveground storage tanks were identified within 1,500 feet of the Site. Based on correspondence with Southern California Edison, there are no high voltage power lines within 350 feet of the Site. Based on correspondence with Underground Service Alert and the Office of the State Fire Marshal, no high-pressure gas pipelines were identified within 1,500 feet of the Site (Geo Hazard Report included as Appendix C of this Addendum). Irvine Ranch Water District does not operate any high-volume water lines within 1,500 feet of the Project Site.

Emergency Response

The Proposed Project would not conflict with any adopted emergency response or evacuation plans. The roadway system to access the Project Site would be developed as part of the VITM 17283A by the Heritage Fields developer. Therefore, adequate access would be provided for emergency situations. Onsite emergency response would be facilitated through the use of the school’s driveways, parking lot, and paved areas, which would provide emergency vehicle access. The District would be required to obtain local fire authority approval of the site plan, including emergency access routes. In addition, it is anticipated that the construction staging area would be provided onsite and the placement of construction materials and equipment would not obstruct surrounding roadway system.

5.8.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

HH-5 Prior to the issuance of a grading permit, the applicant shall prepare ~~and the Director of Community Development shall approve~~ a protocol plan (including but not limited to worker training, health and safety precautions, additional testing requirements, and emergency notification procedures) in the event that unknown hazardous materials are discovered

5. Environmental Analysis

during grading, construction, and/or related development activities. Additionally, said protocol plan will be revised should the discovery of previously unknown hazardous materials be made during any of the above mentioned development activities. The applicant and/or property owner that discovers contamination due to past military operations not previously identified by the DON shall be responsible for notifying the DON, appropriate regulatory agencies, ~~and the Director of Community Development of the City~~ in a timely manner.

5.9 HYDROLOGY AND WATER QUALITY

5.9.1 Environmental Setting

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq.) is the basic water-quality control law for California. Under this Act, the State Water Resources Control Board (“SWRCB”) has ultimate control over state water rights and water-quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The State is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs, carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water-quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region’s ground and surface water, and local, water-quality conditions and problems. The basin plans must include an implementation plan that describes what methods and practices will be used to meet the water-quality standards established in the basin plan. Total maximum daily loads, with their associated implementation plans, are adopted into the basin plans through the basin planning process.

National Pollutant Discharge Elimination System

Runoff water quality is regulated by the federal National Pollution Discharge Elimination System (“NPDES”) program established by the Clean Water Act of 1972. The NPDES program’s objective is to control and reduce pollutants to water bodies from non-point discharges. The program is administered by Regional Water Quality Control Boards (“RWQCBs”) throughout the State. The RWQCB issues NPDES point source permits for discharges from major industries and nonpoint source permits for discharges for municipalities and other nonagricultural dischargers.

The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system (“MS4”) to develop, implement, and enforce a program (e.g., Best Management Practices [“BMPs”], ordinances, or other regulatory mechanisms) to reduce pollutants in postconstruction runoff to the city’s storm drain system from new development and redevelopment projects that result in land disturbances

5. Environmental Analysis

of greater than or equal to one acre. The City of Irvine Community Development Department is the local enforcing agency of the MS4 NPDES permit relevant to the Proposed Project Site.⁸

The provisions of the MS4 Permit require the installation of postconstruction BMPs for new development as part of the federal NPDES program and have set standards for their implementation. These standards have been updated most recently in Order No. R8-2009-0030 NPDES No. CAS618030 as amended by Order No. R8-2010-0062 from the State of California, California Regional Water Quality Control Board, Santa Ana Region.

The intent of these regulations is to rigorously regulate the quality and quantity of postconstruction stormwater runoff from any new impervious surface over 10,000-square feet so that receiving waters downstream are not adversely impacted. To comply with these requirements, new developments are required to install water quality stormwater runoff BMPs that filter or treat rainfall runoff generated from storm events up to approximately the 85th percentile rainfall event (or approximately the 1-inch storm event) before discharging into a receiving waters such as the San Diego Creek. Additional hydrograph modification BMPs are also required so that postproject runoff does not exceed preproject rates or durations if such an increase could contribute to erosion in receiving waters downstream from the Proposed Project Site.

The Orange County Stormwater Program issued a Drainage Area Management Plan (“DAMP”) ⁹ in July 2003, pursuant to NPDES regulations. The 2003 DAMP requires a project’s engineer to prepare a Water Quality Management Plan that specifies how the project will use BMPs to meet the aforementioned waste discharge requirements.

The Approved Project Area is within the San Diego Creek/Newport Bay watershed, which includes the San Diego Creek, Peters Canyon Channel, and the tributaries to these water courses. The major drainage channels that traverse the Combined PA 51 are the Marshburn Channel, Bee Canyon Channel, Agua Chinon Channel, Borrego Canyon Channel, Serrano Creek, and Upper San Diego Creek Channel.

As part of the Certified EIR, a number of hydrology and water-quality studies were prepared, the latest study was prepared in June 2012, entitled “Hydrology Study Heritage Fields Project 2012: General Plan Amendment and Zone Change.” The hydrology study analyzed the Marshburn Channel (F16), Bee Canyon Channel (F17), Agua Chinon Channel (F18) and Borrego Canyon Channel (F20) in the San Diego/Newport Bay watershed and demonstrated that the proposed drainage for the Approved Project was in compliance with the discharge amounts established by the previously approved updates to the Flood Control Master Plan for San Diego Creek.

The Project Site is zoned X by the Federal Emergency Management Agency (FEMA) Flood Insurance Map (map ID#s 06059C0305J and 06059C0315J), indicating that it is out of 100-year and 500-year flood hazard zones.

⁸ State of California, California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, NPDES No. CAS618030, as Amended by Order No. R8-2010-0062, Waste Discharge Requirements for The County of Orange, Orange County Flood Control District, and The Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County.

⁹ County of Orange, The Cities of Orange County and The Orange County Flood Control District, Drainage Area Management Plan, July 1, 2003

5. Environmental Analysis

5.9.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR concluded that the Approved Project would not substantially increase surface water flows into the area drainage systems provided that new development and redevelopment projects under the Approved Project comply with the City's and County of Orange's hydrology-related requirements. Under the applicable requirement, developments are subject to a hydrology report that identifies peak flow rates and drainage improvements to control onsite runoffs.

Current City development standards and the Zoning Code prohibit the construction of any structure within a 100-year Flood Hazard Area. Per the Zoning Code and Mitigation Measure H/WQ-4 of the Certified EIR, a Letter of Map Revision (LOMR) would be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or FIRM or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the flood-control improvements required to contain or redirect the 100-year flood hazard. The LOMR process will be completed upon the completion of Record Drawings for the flood-control facility. Therefore, the Certified EIR concluded that the Approved Project would result in less-than-significant flooding impact related to a 100-year flooding hazard area.

5.9.3 Impacts Associated with the Proposed Project

Existing Plans, Programs, or Policies

The following measures are existing plans, programs, or policies ("PPP") and project design features ("PDFs") that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective hydrology and water quality impacts. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the measures will be implemented by Heritage Fields and its construction contractors and not directly by the District.

- PPP 4-1 Prior to the issuance of precise grading permits, the applicant shall submit a hydrology and hydraulic analysis of the entire site. The analysis shall be prepared by a professional civil engineer versed in flood control analysis and shall include the following information and analysis (Standard Condition A.6):
- a. Hydrology/hydraulic analysis of 100-year surface water elevation at the project site to determine building elevation or flood proofing elevation.
 - b. Analysis of existing and post development peak 100-year storm flow rates, including mitigation measures to reduce peak flows to existing conditions.
 - c. An analysis demonstrating that the volume of water ponded on the site and stored underground in the drainage system outside of the building envelope in the proposed condition is greater than or equal to the corresponding volume in the existing

5. Environmental Analysis

condition. The water surface used to determine the ponded volume shall be based on the water surface in the major flood control facility that the site is tributary to.

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Violate any water quality standards or waste discharge requirements?					X
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 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?					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) Expose people or structures to inundation by seiche, tsunami, or mudflow?					X

5. Environmental Analysis

Comments:

The Certified EIR includes development of the Project Site and no land use changes to the proposed drainage system would occur due to the project implementation. The Project Site would be delivered to the District as a mass-graded site, and the applicable SWRCB/RWQCB standards and mitigation measures incorporated under the Certified EIR would be implemented to reduce impacts related to water quality to a less-than-significant level. During operation, the District would be required to incorporate water-quality features in conformance with DAMP/RWQCB standards to ensure that it will have a less-than-significant impact on post-construction water quality and downstream effects. The Proposed Project would not increase runoff or change approach to satisfying water-quality requirements. Therefore, no additional water-quality impacts or impacts of a greater severity would result from the Proposed Project. Drainage patterns and the infrastructure required would be within the range expected in the Approved Project.

As stated in the Certified EIR, the Proposed Project would result in a soil-erosion impact during grading and excavation activities, exposing bare soils to both wind- and water-related erosion and associated water-quality impacts. However, as with the Approved Project, compliance with city grading and water-quality regulations—including the NPDES discharge permitting requirements and preparation of a Storm Water Pollution Prevention Plan (SWPPP) and a Water Quality Management Plan (WQMP)—are the primary means of controlling the potential impacts of grading and excavation activities. The District would be required to comply with the existing regulations and impacts would not be greater than expected in the Certified EIR.

5.9.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

H/WQ-1 Prior to issuance of a grading permit, the applicant shall provide evidence that the development of the project area shall comply with City of Irvine adopted Grading and Water Quality Ordinances to ensure that the potential for soil erosion is minimized on a project-by-project basis. Specifically, the National Pollutant Discharge Elimination System (NPDES) discharge permitting requirements to which the City is obligated will ensure that construction activities reduce, to the maximum extent feasible, the water quality impacts of construction activities. The NPDES permit guidance states that “industrial/commercial construction operations that result in a disturbance of one acre or more of total land area...and residential construction sites that result in the disturbance of five acres or more...shall be required to develop and implement BMPs...to control erosion and siltation

5. Environmental Analysis

and contaminated runoff from the construction sites.” ~~Note: In March 2003 this provision will apply to residential construction sites that result in the disturbance of one acre or more.~~

The City’s standard conditions of approval indicate that a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared prior to the approval of grading permits for any project site in order to reduce sedimentation and erosion. The SWPPP shall include the adoption of erosion and sediment control practices such as desilting basins and construction site chemical control management measures.

Additionally, prior to the issuance of a grading permit, project applicants must submit, and the Director of Community Development or designee must have approved, a Water Quality Management Plan (WQMP). The WQMP must identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff after the site is occupied. Ongoing operations after construction would be subject to the Countywide Municipal NPDES Stormwater Permit, for which the City is a Co-Permittee. This WQMP shall identify, at a minimum, the routine, structural, and non-structural measures specified in the Countywide NPDES DAMP Appendix which they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.), and shall reference the location(s) of structural BMPs.

Also in accordance with standard City project permitting and approval procedures, Notices of Intent (NOI) for coverage of projects under the General Construction Activity Storm Water Runoff Permit will be submitted to the State Water Resources Control Board prior to issuance of grading permits in the project area. ~~This requirement will be met to the satisfaction of the Director of Community Development of any disturbance of one acre or more of soil in the project area.~~ Also in force during the period of construction would be the General Dewatering NPDES permit of the Santa Ana RWQCB, as well as the provisions of the Countywide Permit.

~~The Mitigation Measures will be implemented in accordance with local and State regulatory requirements. As future projects are planned and designed in the project area, specific BMPs and other water quality control methods will be utilized to reduce water quality degradation in the Newport Bay watershed. Future projects in the proposed project area will acknowledge and implement those additional requirements that may be imposed by RWQCB in the future. Compliance with these measures shall be verified by the Community Development Department.~~

H/WQ-2 Prior to issuance of a grading permit, evidence (e.g., in the form of a construction management plan) shall be provided that demonstrates that all stormwater runoff and dewatering discharges from the project area shall be managed to the maximum extent practicable or treated as appropriate to comply with water quality requirements identified in

5. Environmental Analysis

the Santa Ana Regional Water quality Control Board Basin Plan, including Total Maximum Daily Load (TMDL) Implementation Plan adopted for this watershed.

5.10 LAND USE AND PLANNING

5.10.1 Environmental Setting

The City of Irvine is divided into different planning areas, and the Project Site is located in the Combined Planning Area (PA) 51, also known as the Orange County Great Park. PA 51 is located near southeast corner of Irvine Boulevard and Eastern Transportation Corridor (State Route 133), generally bounded by the Eastern Transportation Corridor to the west, Portola Parkway, Irvine Boulevard, and Foothill Transportation Corridor (SR-241) to the north, the Southern California Regional Rail Authority (SCRRA) rail lines, Irvine Spectrum-3 (PA 32), and Interstate 5 (I-5) to the south, and the stormwater channel near Alton Parkway and Irvine Spectrum-2 (PA 35) to the east.

Locally, the Project Site is in Development District 1 North of the Combined PA 51 known as the “Great Park Neighborhoods,” which consists of nine Development Districts. The Certified EIR approved Vesting Tentative Tract Map No. 17283 (VTTM 17283) for District 1 North. District 1 North is zoned 8.1 Trails and Transit Oriented Development (TTOD) and the VTTM 17283 included K–8 school, multifamily residential, multiuse, church, child care, retail, and research and development (R&D) uses. The Project Site has been mass graded and is currently vacant.

Applicable Plans and Regulations

Local

City of Irvine General Plan

Land uses in the City of Irvine are guided by the City of Irvine General Plan. The General Plan consists of a series of state-mandated and optional elements to direct the City’s physical, social, and economic growth. Elements in the City of Irvine General Plan (adopted in 2000 and subsequently amended) are Land Use, Circulation, Housing, Cultural Resources, Noise, Seismic, Public Services and Facilities, Integrated Waste Management, Energy, Safety, Parks and Recreation, Conservation and Open Space, and Growth Management.

City of Irvine Zoning Classifications

The City’s Zoning Ordinance (“Zoning Ordinance”) establishes zone-specific development regulations, including, but not limited to, height limits, setback requirements, parking ratios, and other development standards. It is through the implementation of the Zoning Ordinance that long-term goals, objectives, and policies of the General Plan are implemented. The City establishes zoning regulations by PA and the 2012 Proposed Project Site is located in Combined PA 51.

Per the City’s Zoning Map, Combined PA 51 consists of five zoning designations, which include: 1.1 Exclusive Agriculture, 1.4 Preservation, 1.9 Orange County Great Park, 6.1 Institutional, and 8.1 TTOD. The Project Site is in the 8.1 TTOD zoning district. 8.1 TTOD land use category allows for a mix of

5. Environmental Analysis

residential, commercial, recreational, and education uses that support the multiuse environment of the Orange County Great Park development.

Regional

Southern California Association of Governments

Orange County is at the western edge of a six-county metropolitan region composed of Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG is the federally recognized metropolitan planning organization (“MPO”) for the region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the Southern California region’s MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (“Caltrans”), and other agencies in preparing regional planning documents. Orange County and its jurisdictions constitute the Orange County Subregion of the SCAG region. The Orange County Subregion is governed by the Orange County Council of Governments (“OCCOG”). SCAG has developed a variety of plans to achieve specific regional objectives.

Regional Transportation Plan/Sustainable Communities Strategy. On April 4, 2012, SCAG adopted the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to help coordinate development of the region’s transportation improvements. The RTP/SCS is a long-range transportation plan that is developed and updated by SCAG every four years. The RTP/SCS provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project over a 20-year period, the RTP/SCS considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address our mobility needs.

The 2012 RTP/SCS integrates the Orange County SCS, which was adopted separately by the OCCOG and the Orange County Transportation Authority (OCTA) in 2011. The 2012 RTP/SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas (GHG) emissions from transportation (excluding goods movement). The Orange County SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the Orange County SCS does not require that local general plans, specific plans, or zoning be consistent with the Orange County SCS, but provides incentives for consistency for governments and developers.

5.10.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR concluded that implementation of the Approved Project would be consistent with the City’s General Plan land use plan, goals, and policies, and the City’s Zoning Ordinance, and SCAG’s regional policies. Implementation of the Approved Project would create a cohesive community of residential and other support uses and would be required to adhere to the specific development regulations established for

5. Environmental Analysis

the applicable zoning designation. Therefore, it was determined that no significant land use impacts related to the Approved Project would occur.

5.10.3 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Project Site and its surrounding area were recently mass graded and is not part of any established community. The Certified EIR included development and operation of a 1,000 student K-8 school in District 1 North in a programmatic level. The proposed K-8 school would be developed within the approved Great Park Neighborhoods to primarily serve the Great Park Neighborhoods residents. No changes to the land uses evaluated under the Certified EIR would occur, therefore, no conflict with any applicable land use plan, policy, or regulations are anticipated. The Proposed Project would be consistent with the underlying General Plan policies and various objectives established by the City. The Project Site is also not part of the any conservation plan or natural community conservation plan. No impacts related to land use and planning are anticipated and no new information would change the significance conclusion of the Certified EIR.

5.10.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to land use and planning were identified in the Certified EIR.

5. Environmental Analysis

5.11 MINERAL RESOURCES

5.11.1 Environmental Setting

Minerals are defined as any naturally occurring inorganic substance having an orderly internal structure and characteristic chemical composition, crystal form, and physical properties (CGS 2014). Minable minerals or an “ore deposit” is defined as a deposit of ore or mineral having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area. The California Geological Survey Mineral Resources Project provides information about California’s nonfuel mineral resources. The Mineral Resources Project classifies lands throughout the State that contain regionally significant mineral resources as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975. Mineral resources areas are classified as one of the four Mineral Resources Zones (MRZs), Scientific Resource Zones (SZ), or Identified Resource Areas (IRAs), as described below:

- MRZ-1: A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.
- MRZ-2: A Mineral Resource Zone where adequate information indicates that significant mineral deposits are present, or a likelihood of their presence and development should be controlled.
- MRZ-3: A Mineral Resource Zone where the significance of mineral deposits cannot be determined from the available data.
- MRZ-4: A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.
- SZ Areas: Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance.
- IRA Areas: Areas identified by county or State Division of Mines and Geology where adequate production and information indicates that significant minerals are present.

The Certified EIR states that most of the Approved Project Area is mapped as MRZ-1 except for the central and eastern parts of District 7, that are mapped MRZ-3.

5.11.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR concluded that the Approved Project would not result in any significant impacts to mineral resources.

5.11.3 Impacts Associated with the Proposed Project

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Project Site is located in MRZ-1 and does not contain any mineral resources. As concluded by the Certified EIR, no impacts related to mineral resources would occur. No changes or new significant information would change the significance conclusion of the Certified EIR.

5.11.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to resources were identified in the Certified EIR.

5.12 NOISE

5.12.1 Environmental Setting

The Project Site is in PA 51 known as the “Great Park Neighborhoods.” The Certified EIR approved Vesting Tentative Tract Map No. 17283 (VTTM 17283), which included the K–8 school, multi-family residential, multiuse, church, child care, retail, and research and development (R&D) uses. The Project Site and its surrounding land have been mass graded and devoid of any structures.

Land uses currently surrounding the Combined PA 51 include residential and agricultural to the north, commercial and light industrial uses to the south, residential and commercial to the west, and commercial and agricultural to the east. Major roadways nearby the Project Site are Sand Canyon Avenue to the west, Portola Parkway and Irvine Boulevard to the north, Barranca Parkway to the south, and Alton Parkway to the east.

Applicable Plans and Regulations

State

The State of California’s noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise

5. Environmental Analysis

standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as schools, residential buildings, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new schools, residential buildings, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Local

City of Irvine General Plan

The noise standards specified in the Noise Element of the City of Irvine General Plan are a guideline to evaluate the acceptability of the noise levels generated by traffic flow. These standards are used for assessment of long-term, traffic-related noise impacts on land uses. The City uses the state's land use compatibility standards shown below in Table 6 to determine the compatibility of a proposed land use based on the exterior noise environment.

Based on these standards, the City has developed policies to ensure land use compatibility when placing new land uses. The City uses an exterior noise level of 65 dBA CNEL as the critical criterion for assessing the compatibility of residential land uses with noise sources. The City requires that, for new residential land uses, the noise levels in the exterior areas considered by the City to be noise sensitive not exceed 65 dBA CNEL. In addition, the City requires that commercial developments not exceed an indoor noise level of 55 dBA CNEL and that residential developments not exceed an indoor noise level of 45 dBA CNEL with the windows closed, which is based on the California Building Code.

Table 6 State of California Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Range (L_{dn} or CNEL), dBA			
	I	II	III	IV
Passively used open spaces	50	50–55	55–70	70+
Auditoriums, concert halls, amphitheaters	45–50	50–65	65–70	70+
Residential: low-density single-family, duplex, mobile homes	50–55	55–70	70–75	75+
Residential: multifamily	50–60	60–70	70–75	75+
Transient lodging: motels, hotels	50–60	60–70	70–80	80+
Schools, libraries, churches, hospitals, nursing homes	50–60	60–70	70–80	80+
Actively used open spaces: playgrounds, neighborhood parks	50–67	–	67–73	73+
Golf courses, riding stables, water recreation, cemeteries	50–70	–	70–80	80+
Office buildings, business commercial and professional	50–67	67–75	75+	–
Industrial, manufacturing, utilities, agriculture	50–70	70–75	75+	–

Source: Office of Noise Control, California Department of Health, 1976.

Noise Range I—Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Noise Range II—Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Noise Range III—Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Noise Range IV—Clearly Unacceptable: New construction or development should generally not be undertaken.

5. Environmental Analysis

Transportation-Related Noise Standards

To control transportation-related noise, the Noise Element of the City of Irvine General Plan establishes guidelines, listed in Table 7, below, for acceptable community noise levels. The City of Irvine General Plan provides specific noise level standards for all land use categories that are used to regulate traffic-related noise level impacts (from noise sources such as arterial roads, freeways, airport, and railroads). For noise-sensitive uses that contain habitable dwellings, the Noise Element establishes both exterior and interior noise level standards.

Table 7 City of Irvine Interior and Exterior Noise Standards

Land Use Categories		Energy Average (dBA CNEL)	
Categories	Uses	Interior ¹	Exterior ²
Residential	Single family, Multi-Family	45 ³ /55 ⁴	65 ⁷
	Mobile Home	–	65 ⁵
Commercial/Industrial	Hotel, motel, transient lodging	45	65 ⁶
	Commercial, retail, bank, restaurant	55	–
	Office building, professional office, research & development	50	–
	Amphitheater, concert hall, auditorium, meeting hall	45	–
	Gymnasium (Multipurpose)	50	–
	Health Clubs	55	–
	Manufacturing, warehousing, wholesale, utilities	65	–
Institutional	Hospital, school classroom	45	–
	Church, library	45	65
Open Space	Parks	45	–

Source: Table F-1 of the City of Irvine General Plan Noise Element.

Interpretation:

¹ Interior environment excludes bathrooms, toilets, closets, and corridors.

² Limited to private yard of single family homes, multifamily private patio or balcony served by a means of exit from inside, mobile-home park, hospital patio, park's picnic area, school's playground, and hotel and motel recreation areas.

³ Noise requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of the Uniform Building Code.

⁴ Noise level with open windows, if they are used to meet natural ventilation requirement.

⁵ Exterior noise level such that interior noise level will not exceed 45 dB CNEL.

⁶ Except those areas affected by aircraft noise.

⁷ Multifamily developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

For noise-sensitive residential uses, the Noise Element requires that exterior noise levels not exceed 65 dBA CNEL for outdoor living areas and that interior noise levels not exceed 45 dBA CNEL. Noise-sensitive exterior uses are limited to the private yards of single-family homes, multifamily private patios or balconies served by a means of exit from inside, mobile-home parks, hospital patios, park picnic areas, school playgrounds, and hotel and motel recreation areas. Multifamily developments with balconies that do not meet the 65 dBA CNEL exterior noise level standard are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

5. Environmental Analysis

Nontransportation/Stationary Source Noise Standards

The City's Noise Ordinance (Irvine Municipal Code, Title 6 [Public Works], Division 8 [Pollution], Chapter 2 [Noise]) (adopted in 1975 and revised in February 2005) establishes the maximum permissible noise level from a stationary source that may intrude into adjoining property. Section 6-8-204 (General Provision) of the City's Noise Ordinance establishes noise-level standards for various land use categories affected by stationary noise sources. For residential properties, the exterior-noise level shall not exceed 55 dBA during daytime hours (7:00 AM to 10:00 PM) and shall not exceed 50 dBA during the nighttime hours (10:00 PM to 7:00 AM) for more than 30 minutes in any hour. For events with shorter duration, these noise levels are adjusted upwards accordingly, as shown in Table 8. It should be noted that Section 6-8-205.D of the Municipal Code states that activities lawfully conducted on public parks, public playgrounds, and public or private school grounds are exempt from the Noise Ordinance's provisions.

Table 8 City of Irvine Exterior Noise Standards by Noise Zone

Noise Zone	Time Interval	Noise Standard (L _{eq})				
		L ₅₀	L ₂₅	L ₈	L ₂	L _{max}
Zone 1: hospitals, libraries, churches, schools, and residential properties	7:00 AM to 10:00 PM	55	60	65	70	75
	10:00 PM to 7:00 AM	50	55	60	65	70
Zone 2: professional office and public institutional	Anytime	55	60	65	70	75
Zone 3: commercial, excluding professional office	Anytime	60	65	70	75	80
Zone 4: industrial	Anytime	70	75	80	85	90

Source: City of Irvine, Municipal Code, Title 6, Division 8, Chapter 2, Noise.

Noise standards shall be reduced by five dB for impact, or predominant tone noise or for noises consisting of speech or music. In the event that the noise source and the affected property are within different noise zones, the noise standards of the affected property shall apply.

Maintenance of property may exceed the noise standards, so long as maintenance activities that exceed the noise limits in Table 8 are restricted to the hours of 7:00 AM through 7:00 PM Monday through Friday or 9:00 AM through 6:00 PM Saturdays.¹⁰ In addition, the City further restricts the maximum noise levels of leaf blowers and hours of use to 8:00 AM through 5:00 PM Monday through Friday and 9:00 AM through 5:00 PM on Saturdays.¹¹

Construction Noise Standards

The City's Noise Ordinance regulates the timing of construction activities and includes special provisions for sensitive land uses. Section 6-8-205.A (Special Provisions) of the Municipal Code states that construction activities and agricultural operations may occur between the hours of 7:00 AM and 7:00 PM Monday through Friday, and 9:00 AM to 6:00 PM on Saturdays. No construction shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or authorized representative. Trucks, vehicles, and equipment that are making or involved with deliveries, loading, or transfer of materials, equipment service, or maintenance of any devices or appurtenances for or within any construction project in the City are also subject to these prohibitions.

¹⁰ *Id.* Section 6-8-205B.

¹¹ *Id.*, Section 6-8-205C.

5. Environmental Analysis

5.12.2 Summary of Impacts Identified in the Certified EIR

Operational Mobile-Source Noise

Offsite, traffic-related exterior noise impacts for the 395, study-area roadway segments were analyzed for the Approved Project. A traffic noise impact would occur if a noise-sensitive land use would experience an increase of 1.5 dBA where the resulting noise levels would be in excess of 65 dBA CNEL. The Certified EIR concluded that changes in the offsite traffic noise levels between -1.4 and 6.6 dBA CNEL would occur on the roadway segments analyzed. At three of the 395 segments analyzed, increases over 1.5 dBA would occur, however the resulting noise level would be below 65 dBA CNEL, and outside noise-sensitive areas. At all other study area segments no increases of 1.5 dBA or greater were projected to occur, as a result, no project or cumulative noise impacts associated with any of the roadway segments analyzed would occur.

Operational Stationary Source Noise

Project-related sources of stationary noise would include activities associated with commercial and retail uses, including parking lots, mechanical equipment, and loading/unloading activities, and activities related to residential uses, including air conditioners, yard-care equipment, and outdoor activities. However, the Certified EIR concluded that no significant impacts would occur, as stationary source noise is regulated by the City through the City's Municipal Code to ensure that they are controlled to acceptable levels. Consequently, the Certified EIR concluded that the Approved Project would not result in stationary source project-level or cumulative noise impacts.

Construction Noise and Vibration

As discussed in the Certified EIR, to minimize the potential construction noise impacts associated with the Approved Project and to ensure that the greatest distance between noise sources and sensitive receptors during construction activities, the project applicant or its successor will be required to implement PPPs 8-1 and 8-3 and PDF 8-1 that were set forth in the Certified EIR. Future projects within the Project Site and other offsite projects within the vicinity of the Project Site will be required to comply with the City noise regulations or those of other adjacent jurisdictions, which reduce potential impacts to a less-than-significant level. Therefore, the Certified EIR concluded that construction-related noise impacts would be controlled within the areas close to each construction site and would, therefore, be unlikely to combine with noise generated from other construction sites. The Certified EIR concluded that with implementation of the existing regulations, PPPs, PDFs and mitigation measures, potential noise impacts associated with Approved Project would be reduced to a level that is less-than-significant.

5.12.3 Impacts Associated with the Proposed Project

The following measures are existing plans, programs, or policies ("PPP") and project design features ("PDFs") that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective noise impacts. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water,

5. Environmental Analysis

etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the measures will be implemented by Heritage Fields and its construction contractors and not directly by the District.

- PPP 8-1 Title 6 (Public Works), Division 8 (Pollution), Chapter 2 (Noise) of the Irvine Municipal Code, also known as the City's Noise Ordinance, outlines the regulations necessary to control unnecessary, excessive and annoying noise in the City. The provisions of this chapter are applicable to non-transportation-related stationary noise sources. It outlines the noise level measurement criteria; establishes the noise zones and the maximum permitted exterior and interior noise standards in each zone; and discloses special noise provisions for construction, truck delivery, and maintenance activities. For example, as outlined in Section 6-8-205 of the Noise Ordinance, no construction shall be permitted outside of the hours of 7:00 AM to 7:00 PM Monday through Friday and 9:00 AM to 6:00 PM Saturdays, unless a temporary waiver is granted by the Chief Building Official or authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.
- PPP 8-2 Prior to the issuance of building permits for each structure or tenant improvement, other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development. The report shall demonstrate that the development will be sound attenuated against present and projected noise levels including stationary, roadway, aircraft, helicopter, and railroad noise to meet City interior and exterior noise standards. The final acoustical report shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). The report shall be accompanied by a list identifying the sheet(s) of the building plans that include required sound attenuation measures (Standard Condition 3.5).
- PPP 8-3 Title 5 (Planning), Division 10 (Grading Code and Encroachment Regulations), Chapter 1 (Grading Code), Section 5-10-127.G (Import and Export of Earth Materials) of the Irvine Municipal Code, states that if a grading project includes the movement of earth material to or from the site in an amount considered substantial by the Chief Building Official, the permittee is required to submit the proposed haul route for review and approval by the Chief Building Official. Special conditions of the grading permit may be imposed that require alternate routes or other measures in consideration of the possible impact on the adjacent community environment or effect on the public right-of-way itself.

5. Environmental Analysis

- PDF 8-1 **Construction Noise:** Prior to issuance of grading permits, the project applicant or its successor shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved, and that construction noise has been reduced.
- During construction activities, all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers, consistent with manufacturers' standards. All stationary construction equipment shall be placed so that emitted noise is directed away from the noise-sensitive receptors nearest the Proposed Project Site boundaries.
 - Equipment shall be staged in areas that will create the greatest distance between construction-related noise sources and the noise-sensitive receptors nearest the Proposed Project Site during all project construction.
 - All construction-related activities shall be restricted to the construction hours outlined in the City's Noise Ordinance (Municipal Code Section 6-8-205).
 - Haul truck and other construction-related trucks traveling to and from the Proposed Project Site shall be restricted to the same hours specified for the operation of construction equipment. To the extent feasible, haul routes shall not pass directly by sensitive land uses or residential dwellings.
 - Where construction will occur adjacent to any developed/occupied noise-sensitive uses, a construction-related noise mitigation plan shall be submitted the Director of Community Development for review and approval prior to the issuance of grading permits. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the Approved Project, through the use of such methods as: (1) temporary noise attenuation fences; (2) preferential location of equipment; and (3) use of current technology and noise-suppression equipment.
 - Construction of planned sound walls that have been incorporated into the project design shall be installed prior to construction of the building foundation; or temporary sound blankets (fences typically composed of poly-vinyl-chloride-coated outer shells with absorbent inner insulation) shall be placed along the boundary of the Proposed Project Site facing the nearest noise-sensitive receptors during construction activities.

IUSD Plans, Programs, or Policies

The following measures are additional PPPs that are required for the proposed K-8 school project that will help to reduce and avoid potential impacts related to noise impacts. The District, as a lead agency, is responsible for ensuring that these measures are implemented.

- IUSD 12-1 The District shall follow the standards provided in the City's Noise Ordinance (Title 6 (Public Works), Division 8 (Pollution), Chapter 2 (Noise) of the Irvine Municipal Code).

5. Environmental Analysis

The provisions of this chapter are applicable to non-transportation-related stationary noise sources. It outlines the noise level measurement criteria; establishes the noise zones and the maximum permitted exterior and interior noise standards in each zone; and discloses special noise provisions for construction, truck delivery, and maintenance activities. For example, as outlined in Section 6-8-205 of the Noise Ordinance, no construction shall be permitted outside of the hours of 7:00 AM to 7:00 PM Monday through Friday and 9:00 AM to 6:00 PM Saturdays, unless a temporary waiver is granted by the City's Chief Building Official or authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.

Would the proposed project result in:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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

5. Environmental Analysis

Comments:

Project-Related Traffic Noise

The Environmental Noise Assessment prepared for the Certified EIR identified a traffic noise screening analysis threshold of 1.5 dBA for all project-related traffic noise level increases where the resulting noise levels would be in excess of 65 dBA. Although changes in noise levels of 3 dBA are considered “barely perceptible,” the Certified EIR utilized this 1.5 dBA noise-level screening threshold to be conservative.

Although the Certified EIR included traffic from the proposed K–8 school, the traffic noise levels were calculated for roadway segments outside the Great Park Neighborhoods Area. Therefore, a traffic study prepared for the K–8 school by IBI Group included additional roadway segments in the vicinity of the project site for project-related evaluation. For consistency, the same noise impact threshold of 1.5 dBA resulting in a noise level greater than 65 dBA CNEL has been used for the analysis in this section.

Tables 9, 10, and 11 present the exterior noise levels at the areas adjacent to each study area roadway for years 2017, 2030, and Post-2030, respectively. As shown on the tables below, the noise-sensitive receptors adjacent to “O” Street north of Trabuco Road could be potentially affected by project-related traffic. The expected increase would be reduced to less-than-significant levels at years 2030 and Post-2030, as background ambient traffic would reduce the share of the project contribution in relation to the overall noise below the 1.5 dBA threshold for noise increase.

It shall be noted that there are currently no sensitive uses in the vicinity of this roadway segment. Although there is a proposed tentative tract map indicating a residential setting in the vicinity of the school site in the area of this affected segment, there is no subdivision map yet for any residential parcels. The Certified EIR includes PPP 8-2 that requires sound attenuation against present and projected noise levels including stationary, roadway, aircraft, helicopter, and railroad noise to meet city interior and exterior noise standards. With PPP8-2 all future noise-sensitive areas would be designed to meet the City of Irvine’s exterior and interior noise standards for long-term conditions. As there are currently no sensitive uses along the segment that would be affected by project-related traffic, and with PPP8-2, which would require any future noise-sensitive uses to be designed to meet exterior and interior noise standards, these impacts would be considered less-than-significant and no mitigation would be required. No changes or new significant information would change the significance conclusion of the Certified EIR.

5. Environmental Analysis

Table 9 2017 Traffic Noise Levels and Project-Related Contributions

Roadway	Segment	CNEL at 50 feet (dBA)			Project Contribution Option 1	Project Contribution Option 2
		No Project	Option 1 Project	Option 2 Project		
Sand Canyon Ave	South of Irvine Bl	74.9	74.7	74.7	-0.2	-0.2
Sand Canyon Ave	South of Trabuco Rd	79.3	79.3	79.3	0.1	0.0
Irvine Blvd	East of Sand Canyon Av	75.2	75.5	75.5	0.4	0.3
Irvine Blvd	East of Ridge Valley	74.6	75.0	75.0	0.4	0.4
Irvine Blvd	West of Modjeska	75.3	75.7	75.7	0.4	0.4
Irvine Blvd	East of "B" St	75.5	75.9	75.9	0.4	0.4
Trabuco Rd	West of "O" St	72.1	73.4	73.3	1.3	1.2
Trabuco Rd	East of "O" St	69.0	69.4	69.8	0.5	0.9
"O" St	North of Irvine Bl	69.0	69.0	69.0	0.0	0.0
"O" St	South of Irvine Bl	68.6	67.8	67.7	-0.7	-0.9
"O" St	North of "LN" St	65.6	66.2	65.6	0.6	0.0
"O" St	South of "LN" St	66.1	67.5	67.0	1.4	0.9
"O" St	North of Trabuco Rd	67.9	70.0	69.6	2.0	1.7
"O" St	South of Trabuco Rd	56.6	64.5	64.5	8.0	7.9
"LQ" St	West of "C" St	61.3	61.7	60.6	0.4	-0.7
"LQ" St	East of "C" St	61.5	62.3	62.1	0.8	0.6
"LQ" St	West of "A" St	61.2	61.7	61.6	0.5	0.4
"LQ" St	East of "A" St	60.1	60.7	60.4	0.6	0.3
"LN" St	West of "C" St	56.2	59.1	59.3	2.9	3.1
"LN" St	East of "C" St	56.8	59.2	59.4	2.3	2.5
"LN" St	West of "A" St	56.8	57.0	57.0	0.1	0.1
"LN" St	East of "A" St	56.8	56.6	56.6	-0.2	-0.2
"VV" St	West of "LM" St	54.6	56.4	56.3	1.8	1.7
"VV" St	East of "LM" St	52.1	55.3	54.8	3.2	2.8
"LY" St	South of Irvine Bl	62.4	60.3	60.5	-2.1	-1.9
"LY" St	North of "LQ" St	60.4	58.3	58.6	-2.1	-1.8
"LY" St	South of "LQ" St	60.5	58.5	58.9	-2.0	-1.7
"LM" St	South of "LN" St	54.1	56.0	56.0	1.9	1.9

Notes: Calculations included in Appendix ____.

Bold indicates where a potentially significant impact may occur.

5. Environmental Analysis

Table 10 2030 Traffic Noise Levels and Project-Related Contributions

Roadway	Segment	CNEL at 50 feet (dBA)			Project Contribution Option 1	Project Contribution Option 2
		No Project	Option 1 Project	Option 2 Project		
Sand Canyon Ave	South of Irvine Bl	75.1	75.0	75.0	0.0	0.0
Sand Canyon Ave	South of Trabuco Rd	79.1	79.1	79.1	0.0	0.0
Irvine Blvd	East of Sand Canyon Av	75.5	76.1	76.0	0.5	0.5
Irvine Blvd	East of Ridge Valley	75.6	76.1	76.1	0.6	0.5
Irvine Blvd	West of Modjeska	76.3	76.8	76.8	0.5	0.5
Irvine Blvd	East of "B" St	76.3	76.6	76.6	0.4	0.4
Trabuco Rd	West of "O" St	74.5	74.9	75.0	0.5	0.5
Trabuco Rd	East of "O" St	70.2	70.1	70.5	-0.1	0.4
"O" St	North of Irvine Bl	69.7	69.6	69.6	0.0	-0.1
"O" St	South of Irvine Bl	68.4	68.1	68.0	-0.3	-0.4
"O" St	North of "LN" St	67.7	67.7	67.4	0.1	-0.3
"O" St	South of "LN" St	68.6	69.0	68.8	0.4	0.2
"O" St	North of Trabuco Rd	71.2	71.6	71.3	0.5	0.2
"O" St	South of Trabuco Rd	69.0	69.4	69.2	0.4	0.2
"LQ" St	West of "C" St	62.8	63.4	62.6	0.6	-0.2
"LQ" St	East of "C" St	62.9	63.6	63.4	0.7	0.5
"LQ" St	West of "A" St	62.9	63.5	63.5	0.6	0.6
"LQ" St	East of "A" St	63.2	63.4	63.4	0.2	0.2
"LN" St	West of "C" St	57.5	59.7	60.1	2.2	2.6
"LN" St	East of "C" St	58.0	59.7	59.9	1.7	1.9
"LN" St	West of "A" St	56.7	57.4	57.4	0.7	0.7
"LN" St	East of "A" St	56.4	57.1	57.1	0.7	0.7
"VV" St	West of "LM" St	56.7	57.1	58.0	0.4	1.3
"VV" St	East of "LM" St	52.7	55.2	58.3	2.5	5.6
"LY" St	South of Irvine Bl	59.1	58.9	59.1	-0.2	0.0
"LY" St	North of "LQ" St	58.4	58.8	58.8	0.4	0.4
"LY" St	South of "LQ" St	58.9	59.7	60.0	0.8	1.1
"LM" St	South of "LN" St	55.4	56.2	56.6	0.9	1.2

Notes: Calculations included in Appendix ____.

Bold indicates where a potentially significant impact may occur.

5. Environmental Analysis

Table 11 Post-2030 Traffic Noise Levels and Project-Related Contributions

Roadway	Segment	CNEL at 50 feet (dBA)			Project Contribution Option 1	Project Contribution Option 2
		No Project	Option 1 Project	Option 2 Project		
Sand Canyon Ave	South of Irvine Bl	75.3	75.3	75.3	0.0	0.0
Sand Canyon Ave	South of Trabuco Rd	79.3	79.3	79.3	0.0	0.0
Irvine Blvd	East of Sand Canyon Av	75.8	75.8	75.8	0.0	0.0
Irvine Blvd	East of Ridge Valley	76.0	76.0	76.0	0.0	0.0
Irvine Blvd	West of Modjeska	76.5	76.5	76.5	0.0	0.0
Irvine Blvd	East of "B" St	76.4	76.4	76.4	0.0	0.0
Trabuco Rd	West of "O" St	74.9	74.9	75.0	0.0	0.0
Trabuco Rd	East of "O" St	70.1	70.1	70.5	0.0	0.5
"O" St	North of Irvine Bl	70.2	70.2	70.2	0.0	0.0
"O" St	South of Irvine Bl	68.2	68.3	68.2	0.0	-0.1
"O" St	North of "LN" St	67.8	67.8	67.5	0.0	-0.3
"O" St	South of "LN" St	69.0	69.0	68.8	0.0	-0.2
"O" St	North of Trabuco Rd	71.6	71.6	71.3	0.0	-0.3
"O" St	South of Trabuco Rd	69.4	69.4	69.3	0.0	-0.1
"LQ" St	West of "C" St	63.3	63.4	62.5	0.1	-0.7
"LQ" St	East of "C" St	63.5	63.6	63.4	0.1	0.0
"LQ" St	West of "A" St	63.5	63.5	63.5	0.1	0.0
"LQ" St	East of "A" St	63.4	63.4	63.4	0.0	0.0
"LN" St	West of "C" St	58.4	59.5	59.8	1.1	1.5
"LN" St	East of "C" St	58.9	59.4	59.7	0.5	0.8
"LN" St	West of "A" St	56.7	57.1	57.1	0.4	0.4
"LN" St	East of "A" St	56.7	56.8	56.8	0.1	0.1
"VV" St	West of "LM" St	57.0	57.1	57.3	0.1	0.3
"VV" St	East of "LM" St	52.7	55.2	55.2	2.5	2.5
"LY" St	South of Irvine Bl	58.2	58.2	58.6	0.0	0.4
"LY" St	North of "LQ" St	58.6	58.6	58.4	0.0	-0.1
"LY" St	South of "LQ" St	59.1	59.3	59.6	0.2	0.5
"LM" St	South of "LN" St	55.7	56.2	56.6	0.5	0.8

Notes: Calculations included in Appendix ____.
Bold indicates where a potentially significant impact may occur.

Stationary-Source Noise

The proposed new K–8 school would be constructed on approximately 13 acres of land (Figure 6, *Proposed Site Plan*) and have a capacity for a total of 1,000 students. Potential noise sources from the operation of school facilities would consist of activities at the school outdoor play areas and ball fields, and the use of school buildings' HVAC systems and bells.

5. Environmental Analysis

Turf and asphalt play areas would be located on the eastern portion of the school. The play areas would not be illuminated for nighttime use. The operational hours of the school would be from 7:30 AM to 3:30 PM. However, students enrolled at the day-care facility could possibly start as early as 7:00 AM, and be picked up as late as 6 PM. Noise levels were taken at an elementary/middle school to illustrate the noise level that can be generated by stationary-source noise. The following describes typical noise that can be generated by school activities:

- HVAC units at 30 feet away measured 50.8 dBA L_{eq} .
- Noise from approximately 30 children playing at a Sandbox Playground 20 feet away measured 63.6 dBA L_{eq} .
- Noise from approximately 60 kids playing on a hard court, including basketball at 100 feet away measured 51.0 dBA L_{eq} .

The results of noise measurements at a similar school were listed to illustrate the magnitude of noise that can be generated by school activities. The nearest existing homes are located approximately 1,500 feet away across State Route (SR) 133. As noise dissipates at a distance of 6 dBA per doubling distance, and the receptors are located across SR-133, noise from school activity would not be heard at the nearest homes. The location of the future nearby noise-sensitive uses are not at this point, they could be constructed as near as approximately 50 feet away from the proposed kinder playground areas on the northwestern portion of the site, and as near as approximately 150 feet to the proposed ball courts on the southern portion of the site. Due to the noise drop off at a distance from the source to the receptors ranging from 50 to 150 feet, and with traffic noise from SR-133, on "O" Street, and on local roads, it is anticipated that noise from school activities would not cause a substantial noise impact to future sensitive uses in the vicinity of the school. Sporadic outdoor play and use of the ball fields would not cause excessive disturbance at nearby residential uses that would cause annoying and offensive sounds. The stationary-source noise impacts expected with the Proposed Project are consistent with those identified in the Approved Project, as the same types of noise sources such as air conditioners and outdoor recreational activities were anticipated in the Certified EIR, and the District would adopt the City's Noise Ordinance Standards included in IUSD 12-1, which would limit non-transportation-related stationary noise sources to nearby sensitive uses.

Therefore, stationary noise impacts would be less-than-significant and no additional mitigation would be required. No changes or new significant information would change the significance conclusion of the Certified EIR.

Temporary Construction-Related Noise

As discussed previously, the Mitigation Agreement between the District and Heritage Fields provides for a super pad, mass graded and compacted project site to be delivered to the District. Mass grading activities typically represent one of the highest potential sources for noise impacts. Subsequent construction activities would be site preparation (fine grading), building construction and paving. The nearest existing receptors are located approximately 1,500 feet to the west of the site, across SR-133. Noise levels generated by heavy construction equipment can range from approximately 70 dBA to in excess of 100 dBA when measured at 50 feet. As discussed in the EIR for the Approved Project, noise levels from Paving are estimated to be

5. Environmental Analysis

82.3 dBA L_{eq} at 100 feet, and 86.3 dBA L_{eq} at 100 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receptor would be reduced to 72 dBA at 100 feet from the source to the receptor, and would be further reduced to 66 dBA at 200 feet from the source to the receptor. Due to distance to the nearest homes, noise during construction to the nearest existing homes would be barely perceptible. There are no subdivision maps for parcels surrounding the school. Future uses surrounding the school would likely be residential. However, there are no concrete plans or approvals at this point, it is likely that there would be no homes occupied in the vicinity of the project site by opening year 2016.

Project construction will be subject to the limitations and requirements of Section 6-8-205(a) of the City's Noise Ordinance. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours. As outlined in Section 6-8-205(a), construction activities may occur between the hours of 7:00 AM and 7:00 PM Monday through Friday, and 9:00 AM and 6:00 PM on Saturday. No construction activities are permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are used at the Project Site or that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within the Project Site are not permitted to be operated or driven on Irvine's streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted is required to take any impact on the community into consideration. No construction activity is permitted outside of these hours except in emergencies including maintenance work on Irvine rights-of-way that might be required. Additionally, construction noise would be temporary, intermittent, and would not create any long-term impacts. To minimize the potential construction noise impacts associated with the Proposed Project and to ensure that the greatest distance between noise sources and sensitive receptors during construction activities are achieved, applicable PPPs and PDFs would be implemented as identified above. Therefore, the Proposed Project's construction noise impacts to offsite, noise-sensitive receptors, as compared to those of the Approved Project, would be less-than-significant. No changes or new significant information would change the significance conclusion of the Certified EIR.

Temporary Construction-Related Vibration

The greatest potential for vibration impacts typically occur during mass grading, when most heavy equipment used for earthmoving activity occurs. A Mitigation Agreement between the District and Heritage Fields provides for a mass graded site to be delivered to the District. In addition, the nearest existing homes are located approximately 1,500 feet away. At that distance, vibration impacts would not occur. There are no subdivision maps for parcels surrounding the school. Future uses surrounding the school would likely be residential. However, there are no concrete plans or approvals at this point, it is likely that there would be no homes occupied in the vicinity of the project site by opening year 2016. There would be no impacts, no changes or new significant information would change the significance conclusion of the Certified EIR.

5. Environmental Analysis

5.12.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to noise identified in the Certified EIR would be applicable to this project.

5.13 POPULATION AND HOUSING

5.13.1 Environmental Setting

OCP-2010 projects the level and distribution of population, housing, and employment growth based on detailed information about growth trends, development, and local land use provided by Orange County jurisdictions and public agencies; infrastructure, utility, and service providers; and the private sector. The Center for Demographic Research adjusts its projections to reflect California Employment Development Department employment projections.

Population: According to the OCP-2010, Irvine residents were projected to account for approximately 7 percent of Orange County's population in 2010. During the 2010–2035 period, the percentage of Orange County's population residing in Irvine is forecasted to increase from 7.1 percent to 8.9 percent. Irvine's average annual population increase is projected to be 3,544 people (or 1.2 percent per year) between 2010 and 2035, resulting in an estimated 2035 population of 304,242.

Housing: The OCP-2010 forecasts that Irvine's housing stock will increase by 35,969 units between 2010 and 2035 (an average annual growth rate of 1,439 units or 1.7 percent) to 120,158 units. There are no residents currently living on the Approved Project Area.

Employment: The OCP-2010 projects a total of 82,661 new jobs, in Irvine between 2010 and 2035, to a total of 291,813 jobs in 2035, which represents an average annual increase of 3,306 jobs.

Jobs-Housing Ratio

The jobs-housing ratio is a general measure of the balance between the number of jobs and number of housing units in a geographic area, without regard to economic constraints or individual preferences. The jobs-housing ratio is one indicator of a project's effect on growth and quality of life in the vicinity of the project. No ideal jobs-housing ratio has been adopted in state, regional, or city policies; jobs-housing goals and ratios are advisory only. SCAG applies the jobs-housing ratio at the regional and subregional level as a tool for analyzing the fit between jobs, housing, and infrastructure. The American Planning Association ("APA") is an authoritative resource for community planning best practices, including recommendations for assessing jobs-housing ratios. Although the APA recognizes that an ideal jobs-housing ratio will vary from jurisdiction to jurisdiction, its recommended target for an appropriate jobs-housing ratio is 1.5 with a recommended range of 1.3 to 1.7 (Weltz, 2003).

The Certified EIR states that based on OCP-2010, the jobs-housing ratio for Orange County in 2010 was 1.42 and is projected to increase to 1.51 in 2035. For the City of Irvine, the jobs-housing ratio was 2.48 in 2010, but is estimated to be reduced to 2.43 in 2035.

5. Environmental Analysis

5.13.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR concluded that implementation of the Approved Project would not result in a significant population and housing impacts. The Certified EIR stated that buildout of the Approved Project would result in a jobs-housing ratio of 1.85, which is an improvement from the 2.48 ratio for 2010.

The Certified EIR further indicated that the Approved Project would have a favorable impact with respect to regional goals for providing housing near jobs-rich areas because it would develop housing units near existing employment concentrations, including the Irvine Spectrum and near transit including the I-405, I-5, SR-133 and the Irvine Transportation Center. The Approved Project would increase the cumulative total number of housing units in Irvine. In doing so, the Approved Project's cumulative housing impact provides benefits for the regional housing goals that promote housing production in jobs-rich areas, City Housing Element goals regarding workforce housing, and state-mandated fair share housing targets.

5.13.3 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Proposed Project is not a growth inducing project that directly generates population or housing demands in the project area. The proposed project would serve the existing and future district population, especially the future Great Park Neighborhoods. The Project Site is located within the Great Park Neighborhoods where a K-8 school was already approved. Implementation of the Proposed Project would not induce substantial population or require displace housing to require replacement housing elsewhere. There would be no impacts and no new information would change the significance conclusion of the Certified EIR.

5. Environmental Analysis

5.13.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to population or housing were identified in the Certified EIR.

5.14 PUBLIC SERVICES

5.14.1 Environmental Setting

Fire Protection and Emergency Service

The Orange County Fire Authority (“OCFA”) provides fire protection services to the City of Irvine, including the Project Site. OCFA also provides fire protection services to unincorporated Orange County and 22 other jurisdictions. It maintains mutual aid agreements with all other cities in Orange County and with the State of California.

OCFA provides fire suppression, emergency medical, rescue and fire prevention, hazardous materials coordination, and wildland management services. OCFA is one of the largest regional fire service organizations in California. OCFA’s goals for the provision of fire services are:

- First-in engines should arrive onscene to medical aids and/or fires within 7 minutes and 20 seconds, 80 percent of the time (OCFA 2013).
- First-in truck companies should arrive onscene to fires within 12 minutes, 80 percent of the time.
- First-in paramedic companies should arrive on-scene at all medical aids within 10 minutes, 80 percent of the time (OCFA 2011).

OCFA has 71 fire stations, which include structural engines (e.g., used for fighting structure fires), truck companies, paramedic units, airport crash trucks, hazardous materials response teams, water-dropping helicopters, and other various pieces of specialized equipment. Eleven of these stations are in Irvine and the closest fire stations to the Project Site are Station #38 located at 26 Parker and Station #27 at 12400 Portola Springs Road in the City of Irvine, approximately 1.5 driving miles from the Project Site.

Nearby OCFA fire stations outside of the City limits (i.e., Tustin and Lake Forest) may respond to calls in the City if necessary. OCFA also has in place a Secured Fire Protection Services Agreement with The Irvine Company, as part of the Northern Sphere Area that funds fire protection facilities and apparatus and would help provide adequate service to all areas surrounding the Great Park neighborhood. OCFA responded to 104,735 emergency calls in 2012. Resources are deployed based on a regional service delivery system, assigning personnel and equipment to emergency incidents without regard to jurisdictional boundaries.

Police Protection Services

The Irvine Police Department (“IPD”) is headquartered at the Irvine Civic Center Complex located at One Civic Center Plaza and has a satellite facility in the Irvine Spectrum Entertainment Complex. The IPD

5. Environmental Analysis

provides all services normally associated with public safety, including patrols, investigations, crime analysis, crime prevention, K-9 unit, Special Operations Unit, forensic investigations, accident investigations/traffic enforcement, Drug Abuse Resistance Education, and emergency management/disaster preparedness. The IPD also has emergency access to helicopter services and mutual aid assistance from surrounding city, county, state, and federal agencies.

The IPD is organized as a geographic policing agency and operates under a full-service, community-oriented policing philosophy. Primary response to the Proposed Project Site would be patrol vehicles assigned geographically throughout the City. Response time to calls for service may vary depending on their location at time of dispatch. The IPD's goals for responding to incidents are:

- "Emergency" calls within 6 minutes, 85 percent of the time.
- "Crimes in Progress" calls within 10 minutes, 85 percent of the time.
- "Less Serious Crimes Occurring Now" calls within 20 minutes, 90 percent of the time.
- "Routine calls for service" within 60 minutes, 85 percent of the time (IPD 2013)

In 2012-13 the IPD responded to 520 priority E calls and 2,683 Priority 1 calls. During the last year the IPD responded to these calls for service within the time mandates as described.

At any given time, a minimum of nine sworn officers are available to respond to calls for service anywhere in Irvine. Beat assignments are based on projected calls for service. According to the Irvine General Plan "typical planning areas with a population of 10,000 to 20,000 require 1.5 officers per 1,000 persons and a facility size of 5.1 acres."

The IPD enforces the traffic laws on the local street system. Traffic enforcement on area freeways and in the unincorporated Orange County area is provided by the California Highway Patrol and the Orange County Sheriff's Department.

James A. Musick Facility

The James A. Musick Facility is owned by the County of Orange and operated by the Orange County Sheriff's Department. The jail facility is located on a 105-acre parcel in PA 35 located approximately 2.7 miles northeast of the Project Site. The jail facility has permanently assigned staff personnel that guard the jail 24 hours a day. The staff includes deputies, special officers, and correctional service technicians. The jail facility is currently a minimum-security detention and corrections facility. Inmate housing and detention facilities are located in the northeast corner of the jail facility site. The IPD has a mutual aid agreement with the County Sheriff's Department and is available to assist the Sheriff with law enforcement at the jail facility, if requested by the Sheriff.

School Resource Officers

The IPD and School Resources Officers (SROs) work in partnership with the Irvine Unified School District to provide safe school campuses throughout the Irvine community. School Resource Officers are sworn

5. Environmental Analysis

police officers assigned to school sites to act as a resource for students, parents and school administration. The Project Site is in the Portola geographic area and two SROs serve two high schools and a middle school.

5.14.2 Summary of Impacts Identified in the Certified EIR

Fire and Emergency Service

The Certified EIR concluded that with the addition of Fire Stations 47 and 55 in the vicinity of the Approved Project Area and compliance with the existing regulations and policies, impacts related to fire protection services of the Approved Project would be less-than-significant. OCFA would review and approve building plans to ensure that adequate facilities are provided, and all standard conditions and guidelines applicable to the Approved Project are implemented.

Police Service

The Certified EIR concluded that compliance with all standard conditions and guidelines during development review and permitting process, including PPPs would ensure that impacts on police protection and service to a less-than-significant level. The Certified EIR stated that continued implementation of the City's Strategic Business Plan and annual budget review process would ensure that impacts from Approved Project are reduced to a less-than-significant level. Furthermore, it was stated that dedication of a 5-acre land in District 1's Approved Project would increase the number of residents in the Approved Project Site, which would result in increased need for sworn officers. However, additional police personnel and associated equipment would be provided through the continued implementation of the City's Strategic Business Plan and annual budget review process to ensure that impacts are reduced to a less-than-significant level. Dedication of a 5-acre land in District 1 required under the 2011 Approved Project would still be applicable under the Approved Project. Police department needs are assessed and budget allocations are revised accordingly to ensure that adequate levels of service are maintained throughout the City. Therefore, as with the Certified EIR, impacts were determined to be less-than-significant provided that mitigation measures and standard conditions are implemented.

5.14.3 Impacts Associated with the Proposed Project

Fire Protection

Existing Plans, Programs, or Policies

The following measures are existing PPPs that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective fire protection impacts.

PPP 10-1	Every project applicant shall comply with all applicable Orange County Fire Authority codes, ordinances, and standard conditions regarding fire prevention and suppression measures relating to water improvement plans, fire hydrants, automatic fire extinguishing systems, fire access, access gates, combustible construction, water availability, and fire sprinkler systems.
----------	--

5. Environmental Analysis

- PPP 10-2 Prior to the approval of the first certificate of occupancy the applicant shall arrange for and have passed an inspection, to be performed by the Police Department and the Orange County Fire Authority, to ensure compliance with the Emergency Access Plan requirements. The inspector shall verify test acceptance and locations of all Knox boxes and key switches as depicted on the approved plan (Standard Condition 4.9).
- PPP 10-3 Prior to the issuance of the first building permit, the applicant shall submit and have approved by the Chief of Police an Emergency Access Plan, which identifies and locates all Knox Boxes, Knox key switches, and Click2Enter radio access control receivers. Said plan shall be incorporated into the plan set approved for building permits (Standard Condition 3.17).
- PPP 10-4 Prior to the issuance of the first building permit, the applicant shall have executed a Secured Fire Protection Agreement with the Orange County Fire Authority (Standard Condition A.15).

IUSD Plans, Programs, or Policies

The following measures are additional PPPs that are required for the proposed K-8 school project that will help to reduce and avoid potential impacts related to fire protection. The District, as a lead agency, is responsible for ensuring that these measures are implemented.

- IUSD 14-1 The District shall comply with all Division of the State Architect approvals for fire and life safety, including sign off by Orange County Fire Authority.
- IUSD 14-2 Structures shall have automatic fire sprinkler systems where required.
- IUSD 14-3 The District shall install a supervised fire alarm system per the requirements of the California Fire Code in an accessible location with annunciator.
- IUSD 14-4 The District shall provide access to and around structures to meet Orange County Fire Authority and California Fire Code requirements
- IUSD 14-5 The District shall provide a water supply system to supply fire hydrants and automatic fire sprinkler systems with fire hydrant spacing in accordance with Division of the State Architect requirements.
- IUSD 14-6 Turning radius and access in and around the project site and buildings shall be designed to accommodate large fire department vehicles and their weight.
- IUSD 14-7 All electrically operated gates within the Project Site shall install emergency opening devices as approved by the Orange County Fire Authority.

5. Environmental Analysis

Police Protection

Existing Plans, Programs, or Policies

The following measures are existing PPPs that were identified as part of the Approved Project and would be applicable to the Proposed Project, which would help to reduce and avoid their respective police protection impacts.

PPPs 10-2 and 10-3 outlined above under fire protection and emergency services apply to police protection and services as well.

PPP 10-5 The project applicant shall comply with all applicable requirements of the City of Irvine Uniform Security Code (Municipal Code Title 5, Division 9, Chapter 5).

PPP 10-6 Prior to the issuance of the first building permit, a Construction Site Security Plan, per the Irvine Uniform Security Code, Section 5-9-521, shall be approved by the Chief of Police. Said plan shall be incorporated into the plan set approved for building permits (Standard Condition 3.20).

PPP 10-7 Prior to approval of the first certificate of occupancy, the project applicant shall demonstrate to the City's Police Department that an Opticom traffic light control system has been installed at all signalized intersections servicing or adjacent to the Proposed Project Site (Condition of Approval).

PPP 10-8 The project applicant shall implement the concepts of Crime Prevention Through Environmental Design in the design and layout of individual development projects within the Proposed Project Site to reduce criminal opportunity and calls for police service. Implementation of these concepts shall be verified by the City's Police Department during the development review process (Condition of Approval).

IUSD Plans, Programs, and Policies

The following measures are additional PPPs that are required for the proposed K-8 school project that will help to reduce and avoid potential impacts related to police protection. The District, as a lead agency, is responsible for ensuring that these measures are implemented.

IUSD 14-8 Where feasible, ensure that pedestrian and vehicular traffic are physically separated throughout the campus, including walkways, parking areas, driveways, and access roads.

IUSD 14-9 Minimize unauthorized pedestrian and vehicular entry points onto the campus through the appropriate use of fencing, gates, bollards, and effective signage.

IUSD 14-10 Design pedestrian walkways to maximize alignment with crosswalks on adjacent public streets to limit jaywalking and other unsafe crossing of streets.

5. Environmental Analysis

- IUSD 14-11 Ensure that public address announcements can be heard by all students and staff in all indoor and outdoor areas including outdoor assembly areas and athletic areas.
- IUSD 14-12 Install infrastructure to provide for future video surveillance cameras.
- IUSD 14-13 Ensure that office and classroom doors can be quickly locked from the inside, and that, where feasible, employees have visibility outside of doors either through windows or door viewers.
- IUSD 14-14 Ensure that students and staff can evacuate classrooms and offices in emergencies through a secondary door whenever possible.
- IUSD 14-15 Ensure that all outdoor lighting meets pedestrian code requirements.
- IUSD 14-16 Consider having all parking spaces in student and staff lots unmarked with names or titles of students or employees. Spaces can be marked with “Student” or “Staff” as appropriate.

Would the proposed 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:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

Fire Protection

The Project Site is located within District 1 North of the Great Park Neighborhoods and a 1,000-student K-8 school is included as approved use under the District 1 North. OCFA provides coverage based on the approved residential densities for the surrounding areas. The VTTM 17283A is approved for District 1 North. In anticipation of the planned development in per the Approved Project, including the Proposed Project, OCFA has provided the fire protection facilities in the project vicinity as shown in Table 12.

5. Environmental Analysis

Table 12 OCFA Responding Stations

Station	Distance ¹	Station Location	Equipment and Personnel
Initial Responding Stations to Proposed Project Site			
Station 27	1.7 mi	12400 Portola Springs Road	1 Medic Engine/4 per shift
Station 20	1.2 mi	7020 Trabuco Road	1 Medic Engine/4 per shift

Source: OCFA 2013

¹ Driving miles.

The proposed K–8 school would not handle substantial quantities of flammable liquids or other hazardous materials that would increase fire hazards more than anticipated by OCFA. All onsite hazardous materials, such as cleaning compounds or chemicals for instructive purposes would be in limited quantities, and would be stored, dispensed, and disposed in accordance with applicable regulations. Therefore, no new or expanded fire facilities would be necessary to provide adequate fire protection services to the Project Site. Furthermore, the Project Site is not within the High Fire Severity Rating and Open Space with Fire Potential area as identified by the Safety Element of the City’s General Plan. The building plans would be required to be reviewed and approved by the Division of the State Architect and OCTA for fire safety and emergency access, and would incorporate various fire prevention features as stated in IUSD 14-1 through IUSD 14-7. Therefore, implementation of the proposed project would have less-than-significant impact and the significance conclusion of the Certified EIR would not change.

Police Protection

The new K–8 school would be served by IPD and District staff. The campus would incorporate crime prevention design features as described above in IUSD 14-8 through IUSD 14-16 such as nighttime security lighting, building security system, and secured parking lots.

Additional police service facilities are typically generated by growth-inducing development project such as residential and commercial uses. As stated in the Certified EIR, the increased demand generated by the Approved Project would be managed through the existing review and approval process and compliance with applicable plans and regulations. The new school would provide the necessary educational services for residents of Great Park Neighborhoods. Police support would operate out of the Police Administration Building located at 1 Civic Center Plaza and no additional police service facilities would be required to serve the proposed school.

The Certified EIR indicated that the additional police personnel and associated equipment would be provided through the continued implementation of the City’s Strategic Business Plan and annual budget review process. Police department needs are assessed and budget allocations are revised accordingly to ensure that adequate levels of service are maintained throughout the City. VTTM 17283A has been approved for District 1 North and no changes to the Approved Project would be necessary for the development of the Proposed Project. It is anticipated that the District would maintain adequate security on its campus using appropriate District staff and resources.

5. Environmental Analysis

The Proposed Project is part of the Approved Project and would not induce growth in the area to substantially increase IPD's expected response times or per capita service goal to result in adverse effects on police protection and services. The Proposed Project would not have a significant impact and the conclusions of the Certified EIR would not change.

Schools

The Approved Project included a K-8 school in District 1 North. The Proposed Project is consistent with the land use approved for District 1 North and the Proposed Project would meet the educational needs of the future Great Park Neighborhoods. No impact to schools is anticipated.

Parks and Other Public Facilities

The Approved Project included a K-8 school in District 1 North. No changes to the Certified EIR would result from the project implementation. The proposed K-8 school would serve the existing and future student population in the District boundaries that are already served by the existing local and regional parks system in the area. Development of the Proposed Project would not create the need for new parks. Instead, various school supporting amenities of the K-8 school would be available for community use pursuant to the Civic Center Act. No significant impacts related to parks or other public facilities are anticipated.

5.14.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

There are no mitigation measures in the Certified EIR that are applicable to the Proposed Project.

5.15 RECREATION

5.15.1 Environmental Setting

City of Irvine Park Standards

For new residential developments, the City requires a dedication of five acres of parkland (three acres of neighborhood and two of community parkland) for every 1,000 residents. However, the adoption of the Amended and Restated Development Agreement (ARDA) (Ordinance No. 09-09) specified that the community park dedication requirement for residential developments in the Approved Project Site was satisfied through the dedication of land and money for the Great Park. Under the ARDA, the modified neighborhood parkland dedication requirements noted below apply to residential developments within the Approved Project Site:

- For market-rate residential development, 3 acres of neighborhood parkland for every 1,000 residents
- For affordable-rate residential development, 2 acres of neighborhood parkland for every 1,000 residents.

The population estimates for calculating parkland is based on population generation factors adopted by the City in the Municipal Code Subdivision Ordinance (Park Code, Section 5-5-1004 [c],) which implements the

5. Environmental Analysis

State Quimby Act (California Government Code Section 66477). The actual parkland dedication requirement for the Approved Project Site was calculated based on the ARDA.

Parks in Irvine

The City of Irvine has 18 community parks, 37 public neighborhood parks, 200 private neighborhood parks, and other public and private recreational facilities. There are no existing or proposed community parks within the Proposed Project Site. Heritage Fields has met its requirement for dedication of community parkland via past dedication of 165 acres of parkland and payment of fees to the City as set forth in the ARDA.

5.15.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR stated that implementation of the Approved Project would result in a total of 68.77 acres of neighborhood parks without the optional conversion and 77.31 acres of neighborhood parks with the optional conversion. The public neighborhood parkland in the Approved Project Area would be offered for dedication pursuant to the adopted ARDA and would also meet dedication requirements set forth in applicable provisions of the City's Local Park Code and Subdivision Ordinance. The Certified EIR concluded that the Approved Project would result in less-than-significant impacts related to recreational facilities.

5.15.3 Impacts Associated with the Proposed Project

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Proposed Project would serve the existing and future school district population that is served by existing and future neighborhood and regional parks or other recreational facilities. The proposed K-8 school would provide various athletic facilities and would not create the need for use of other existing recreational facilities in the area. The Proposed Project would not result in substantial physical deterioration of the recreational facilities in the area. As with the Certified EIR, no significant impacts to recreational facilities would occur and no new information would change the significance conclusion of the Certified EIR.

5. Environmental Analysis

5.15.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

No mitigation measures related to recreation were identified in the Certified EIR.

5.16 TRANSPORTATION/TRAFFIC

The analysis in this section is based in part on the following technical report:

- Irvine Unified School District K-8 School Project Traffic Impact Analysis Report, IBI Group, February 2014 ("Traffic Analysis Report"). (A complete copy of this study is included in Appendix E of this Addendum).

5.16.1 Environmental Setting

The District plans to build a new K-8 school facility at the southeast corner of the future "O" Street and "LN" Street, east of Sand Canyon Avenue and SR-133 and west of Alton Parkway. The Project Site is part of the Heritage Fields/Great Park Neighborhoods in the Combined PA 51. The Certified EIR approved a development project to: (1) add 3,412 residential units in addition to the 4,894 units already approved by the City (plus a request for up to 1,194 additional Density Bonus units); and (2) reduce the overall nonresidential intensity within Combined PA 51 by 410,400 square feet to: (a) 3,364,000 square feet of Medical Science; (b) 220,000 square feet of Community Commercial; and (c) 1,318,200 square feet of Multiuse. The Approved Project included a 1,000-student K-8 school in its buildout scenario.

Existing Roadway Network

Selected master plan arterials that provide access to the K-8 school site are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, adjacent land uses, and the City of Irvine General Plan Master Plan of Arterial Highways (MPAH) designation.

Irvine Boulevard is a six-lane roadway divided by a landscaped median. On the City of Irvine Master Plan of Arterial Highways, Irvine Boulevard is designated as a Major Highway (generally six-lanes) between Newport Avenue and the southern city limits south of Alton Parkway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and onstreet parking is not permitted.

Trabuco Road runs north and south through the study area. On the City of Irvine Master Plan of Arterial Highways, Trabuco Road is designated as a Major Highway between Sand Canyon and the future SR-133 interchange. It is two lanes in each direction divided by a landscaped median. Class II bicycle lanes are striped along both sides of the street throughout the study area, and onstreet parking is not permitted.

Marine Way is currently a two-lane undivided roadway between Sand Canyon Avenue and El Toro Boulevard. In the City of Irvine Master Plan of Arterial Highways, Marine Way is designated as a Primary.

5. Environmental Analysis

Existing Average Daily Traffic Volumes and Levels of Service

Average daily trip (ADT) volumes for the study area network are summarized in Table 13, and as shown, all study area segments currently operate at level of service (LOS) C or better. There are currently no existing study intersections.

Table 13 Year 2014 ADT Volumes–No Project

#	Street Name	Limits	# Lanes	Capacity	ADT	VC	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	23,063	0.430	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	28,245	0.390	A
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	18,961	0.350	A
4	Irvine Blvd	East of Ridge Valley	4D	32,000	18,961	0.590	A
5	Irvine Blvd	West of Modjeska	4D	32,000	18,961	0.590	A
6	Irvine Blvd	East of "B" St	6D	54,000	18,961	0.350	A

#D–total number of lanes in both directions divided by a raised median.

5.16.2 Summary of Impacts Identified in the Certified EIR

The Certified EIR analyzed the study area circulation system based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. In some cases, project impacts that were not mitigated by improvements identified in the North Irvine Transportation Mitigation (NITM) Program were identified for project development scenarios. It was determined that traffic impacts would remain significant and unavoidable for the Approved Project if there are intersections where identified improvements may not be feasible due to cost, right-of-way concerns, or community opposition.

Because the primary responsibility for approving and/or completing certain improvements located outside of Irvine lies with agencies other than the City (i.e., City of Lake Forest, Laguna Woods, Mission Viejo, Orange County, and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the City's control (i.e., the City cannot undertake or require improvements outside of Irvine's jurisdiction). Although the City adopted the NITM Program to establish a funding mechanism for the transportation improvement mitigation measures identified in the EIRs for three future development projects in north Irvine: 1) Spectrum 8/PA40, 2) Irvine Northern Sphere Area (Pas 5B, 6, 8A and 9), and 3) the Orange County Great Park. This program will contribute to the improvement of facilities within Irvine and a fair-share to improvements outside Irvine. The City acknowledged the fair-share cost of improvements to those facilities; however, the adjacent Cities have full control over implementing the identified improvements under their jurisdiction. The Certified EIR concluded that if improvements are not completed for reasons beyond the City's control, the Approved Project's traffic impacts would remain significant.

Caltrans Main-Line Segments and Ramps

The Certified EIR evaluated potential impacts to the freeway mainline segments and ramps, but because implementation of the transportation improvements to Caltrans facilities is the primary responsibility of

5. Environmental Analysis

Caltrans, it was determined that the Approved Project would have significant and unavoidable impacts to freeway/tollway ramp and mainline.

5.16.3 Impacts Associated with the Proposed Project

Analysis Methodology

Analysis Scenarios

The Traffic Analysis Report included in Appendix E evaluated traffic conditions of “2012 Modified Project Option 1” and “2012 Modified Project Option 2” because the Second Supplemental Environmental Impact Report (“2012 SSEIR”) for the Heritage Fields Development approved these two development options. These two approved development options included a 1,000-student K–8 school in their buildout scenarios. The Traffic Analysis Report included the 2011 Approved Project condition that evaluated approved project under the 2011 SEIR. However, because development options included in the 2012 SSEIR replaces the 2011 Approved Project, the 2011 Approved Project condition became irrelevant and was excluded in this Addendum.

Existing Conditions

- Year 2014 peak hour intersection and 24-hour segment counts

Existing Plus Project Conditions

- Year 2014, 2012 Modified Project Option 1
- Year 2014, 2012 Modified Project Option 2

Interim Year 2017 Analysis

- Year 2017, 2012 Modified Project Option 1
- Year 2017, 2012 Modified Project Option 2

Interim Year 2030 Analysis

- Year 2030, 2012 Modified Project Option 1
- Year 2030, 2012 Modified Project Option 2

Post-2030 Analysis

- Post-2030, 2012 Modified Project Option 1
- Post-2030, 2012 Modified Project Option 2

5. Environmental Analysis

Study Area Intersections

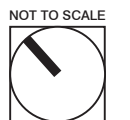
Study intersections are as follows and Figure 7, *Year 2017 Intersection Geometry and Control*, shows the study intersections and planned roadways for year 2017. All future conditions were based on the roadway and traffic assumptions used in the Certified EIR. Five intersections are site access driveways that will be constructed as part of the K-8 school project. The analysis was conducted for the weekday AM peak hour and the weekday daily time periods. No PM peak hour analysis was included as a K-8 school's trip generation because its pattern does not overlap with the typical PM peak hour for adjacent street traffic (between 4:00 PM and 6:00 PM).

1. "B" St & Driveway 1
2. "B" St & Driveway 2
3. Driveway 3 & "LQ" St
4. Driveway 4 & "LQ" St
5. "LQ" St & Driveway 5
6. "O" St & "C" St
7. Ridge Valley/"O" St & Irvine Blvd
8. "O" St & Trabuco Rd
9. "O" St & "LN" St
10. "O" St & "LQ" St
11. "C" St & "LN" St
12. "C" St & "LQ" St
13. "LY" St & "LQ" St
14. "LY" St & Irvine Blvd
15. "LY" St & "LN" St

Intersection Analysis

Study intersection future forecast traffic conditions are analyzed using the Intersection Capacity Utilization ("ICU") methodology adopted in the Orange County Congestion Management Program ("CMP"). The ICU methodology is based on intersection volume-to-capacity ("V/C") ratios. The ICU value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the ICU values for the critical movement on each leg, where the critical movement is the one (left, through, or right) that has the highest ICU value. ICU values are usually expressed as a decimal percent (e.g., 0.74), where 1.00 represents the saturated condition where the volume of traffic flow is equal to the capacity.

The methodology also incorporates a check for right-turn capacity utilization. Right-turn-on-green and right-turn-on-red capacity availability is calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total-capacity utilization value. This calculation utilizes a right-turn-on-red ("RTOR") factor, which reflects a lower saturation flow rate for these turning movements. The RTOR factor is not used for dedicated right turns, due to the absence of conflicting movements that would reduce capacity.



5. Environmental Analysis

This page intentionally left blank.

5. Environmental Analysis

The efficiency of traffic operations is measured in terms of LOS. The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of roadways and intersections involves the assignment of grades from “A” to “F,” with LOS “A” representing the highest level operating conditions and LOS “F” representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C values, which are described in Table 14. Intersection LOS analysis was performed using TRAFFIX software.

Table 14 Level of Service Description

Level of Service	ICU Value	Definition
A	0.00–0.60	At level of service A there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.61–0.70	Level of service B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	0.71–0.80	In level of service C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.81–0.90	Level of service D encompasses a zone of increasing restriction, approaching instability. Delay to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.91–1.00	Level of service E represents the most vehicles that any particular intersection approach can accommodate. At capacity ($V/C = 1.00$) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.000	Level of service F represents jammed conditions. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

ICU—Intersection Capacity Utilization

Source: City of Irvine Traffic Study Guidelines

Performance Standards

The traffic analysis incorporates the performance standards adopted by the City of Irvine. A capacity of 1,700 vehicles per hour per lane (VPHPL) is assumed for both through lanes and dedicated turn lanes at the study intersections. Traffic signal phasing in the future condition is assumed to match the existing signal phasing (i.e., existing protected left turn equals future protected left turn). The assumptions used in the analysis are as follows:

- Saturation Flow Rate: 1,700 vehicles per hour per lane
- Clearance Interval: 0.05 seconds
- RTOR: Allowed

5. Environmental Analysis

- RTOR Saturation Flow Factor: 0.75
- Minimum Volume/Capacity (V/C): None

Traffic Count Data

Intersection turning movement counts were obtained from the Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, 2012. The counts were taken in 2012 and the City approved annual growth rate of 1.5 percent per year was applied to the year 2012 counts to estimate year 2014 volumes.

Existing ADT volumes on roadway segments in the vicinity of the project were also obtained from the Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, and were collected in 2012. Forecast ADT was obtained from the new model run provided by the City.

Forecast Traffic Volumes

The future forecast intersection traffic volumes for year 2017, 2030, and post-2030 were obtained from the City of Irvine Traffic Model (ITAM Version 8.4-10). The model is consistent with the model used in the Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, 2012; and was updated to exclude the K-8 school as part of no project condition. Updated model runs without the K-8 school were provided by ITAM for the year 2015, 2030, and post-2030 in order to analyze no project conditions. An annual growth rate of 1.5 percent per year was applied to the year 2015 to estimate year 2017 forecast volumes.

Traffic Analysis Performance Criteria

The minimum acceptable level of service for intersections in the City of Irvine located outside of the Irvine Business Complex (IBC) is LOS D. All of the project study intersections are located outside of the IBC. For facilities that are forecast to operate at LOS “E” or LOS “F” in the baseline condition, project traffic is considered to result in a significant impact if it would cause the total ICU to increase by 0.02 or greater. Mitigation measures to return the ICU value back to the “without project” condition are required.

For intersections that are projected to be deficient in the most recent Circulation Phasing Analysis Report, a project-related increase in ICU of 0.01 or greater in the interim year (short-term) would require mitigation measures to return the facility to baseline or contribution of fair share towards mitigation back to an acceptable level of service.

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:

The Traffic Study prepared for the Proposed Project determined that the trip generation associated with the Proposed Project would not impact levels of service for the existing area roadway system as compared to the Approved Project.

Project Trip Generation

The trip generation for the proposed K-8 was estimated as shown in Table 15 below.

5. Environmental Analysis

Table 15 Project ITE Trip Generation

	Weekday	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Rates	1.71	0.2856	0.1344	0.42	0.0611	0.0689	0.13
Trips	4,446	743	349	1,092	159	179	338

Trip Distribution

The project trip distribution for each analysis scenario has been developed based on the following assumptions:

- Five percent of the project trips are generated by faculty and staff originating outside of the City of Irvine.
- Five percent of the project trips are generated by faculty and staff originating within the City of Irvine, but outside of the K-8 School attendance area boundary.
- The number of trips originating from each sub-area within the K-8 School attendance area boundary is proportional to the number of residential dwelling units located in that sub-area.

Based on future development of the Approved Project, there is an estimated 3,146 (in 2012 Modified Project Options 1 and 2) residential housing units that will be located within the K-8 school attendance area. The trip origin and destination assumptions for each of the Interim Year 2017 scenarios and for Year 2030 and Post-2030 are provided in Table 16, *Trip Distribution Assumptions*. The appendix of the Traffic Impact Report included as Appendix E to this Addendum contains a memo that details the trip distribution for the study area for Year 2017, 2030 and Post-2030.

Table 16 Trip Distribution Assumptions

	2011 Approved Project		2012 Modified Project Option 1		2012 Modified Project Option 2	
	DU	%	DU	%	DU	%
Interim Year 2017 Assumptions						
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	53%	1,615	46%	1,873	54%
District 1 South	-	0%	429	12%	171	5%
District 4	1,102	37%	1,102	32%	1,102	32%
Total	2,717	100%	3,146	100%	3,146	100%
Year 2030 and Post 2030 Assumptions						
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	46%	1,615	46%	1,873	54%
District 1 South	429	12%	429	12%	171	5%
District 4	1,102	32%	1,102	32%	1,102	32%
Total	3,146	100%	3,146	100%	3,146	100%

5. Environmental Analysis

Existing Conditions With Proposed Project

Existing Plus Project Conditions

Under the existing plus project conditions, all study area segments and intersections are calculated to operate at LOS D or better for all three scenarios. There are no project impacts under the year 2013 scenario.

Interim Year 2017 Analysis

The school is proposed for an opening year of 2016; however, per City requirements, the year 2017 is analyzed as the designated “interim” year after the project opening year. Figures 8a and 8b, *Year 2017 AM Peak Hour Volumes with Project* shows the year 2017 peak hour condition for the Approved Project (both the 2012 Modified Project Options 1 and 2). All of the study roadway segments are forecast to operate at LOS C or better and no deficient segments would result from the Proposed Project. As shown in Table 17, all study intersections are forecast to operate at LOS C or better.

Table 17 Year 2017 AM Peak Hour Intersection LOS Comparison

Intersection		Control	No Project		With Project		Change	Impact
			V/C	LOS	V/C	LOS		
2012 Modified Project Option 1								
1	Driveway 1 & "VV" St	U	0.07	A	0.19	A	0.12	No
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	No
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	No
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	No
5	Driveway 5 & "LN" St	U	0.17	A	0.24	A	0.07	No
557	"O" St & "C" St	R	0.33	A	0.34	A	0.01	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.64	B	0.65	B	0.01	No
559	"O" St & Trabuco Rd	S	0.75	C	0.76	C	0.01	No
603	"O" St & "LN" St	S	0.33	A	0.35	A	0.02	No
605	"O" St & "LQ" St	R	0.47	A	0.49	A	0.02	No
613	"C" St & "LN" St	U	0.25	A	0.31	A	0.06	No
615	"C" St & "LQ" St	U	0.43	A	0.48	A	0.05	No
626	"LY" St & "LQ" St	R	0.47	A	0.51	A	0.04	No
627	"LY" St & Irvine Blvd	S	0.25	A	0.25	A	0.00	No
629	"LY" St & "LN" St	U	0.32	A	0.35	A	0.03	No
2012 Modified Project Option 2								
1	Driveway 1 & "VV" St	U	0.07	A	0.18	A	0.11	No
2	"LM" St & Driveway 2	U	0.08	A	0.11	A	0.03	No
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	No
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	No
5	Driveway 5 & "LN" St	U	0.18	A	0.25	A	0.07	No
557	"O" St & "C" St	R	0.33	A	0.34	A	0.01	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.64	B	0.65	B	0.01	No
559	"O" St & Trabuco Rd	S	0.75	C	0.76	C	0.01	No
603	"O" St & "LN" St	S	0.31	A	0.34	A	0.03	No

5. Environmental Analysis

Table 17 Year 2017 AM Peak Hour Intersection LOS Comparison

Intersection		Control	No Project		With Project		Change	Impact
			V/C	LOS	V/C	LOS		
605	"O" St & "LQ" St	R	0.48	A	0.50	A	0.02	No
613	"C" St & "LN" St	U	0.29	A	0.35	A	0.06	No
615	"C" St & "LQ" St	U	0.45	A	0.50	A	0.05	No
626	"LY" St & "LQ" St	R	0.46	A	0.50	A	0.04	No
627	"LY" St & Irvine Blvd	S	0.24	A	0.25	A	0.01	No
629	"LY" St & "LN" St	U	0.34	A	0.37	A	0.03	No

Interim Year 2030 Analysis

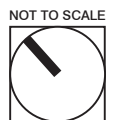
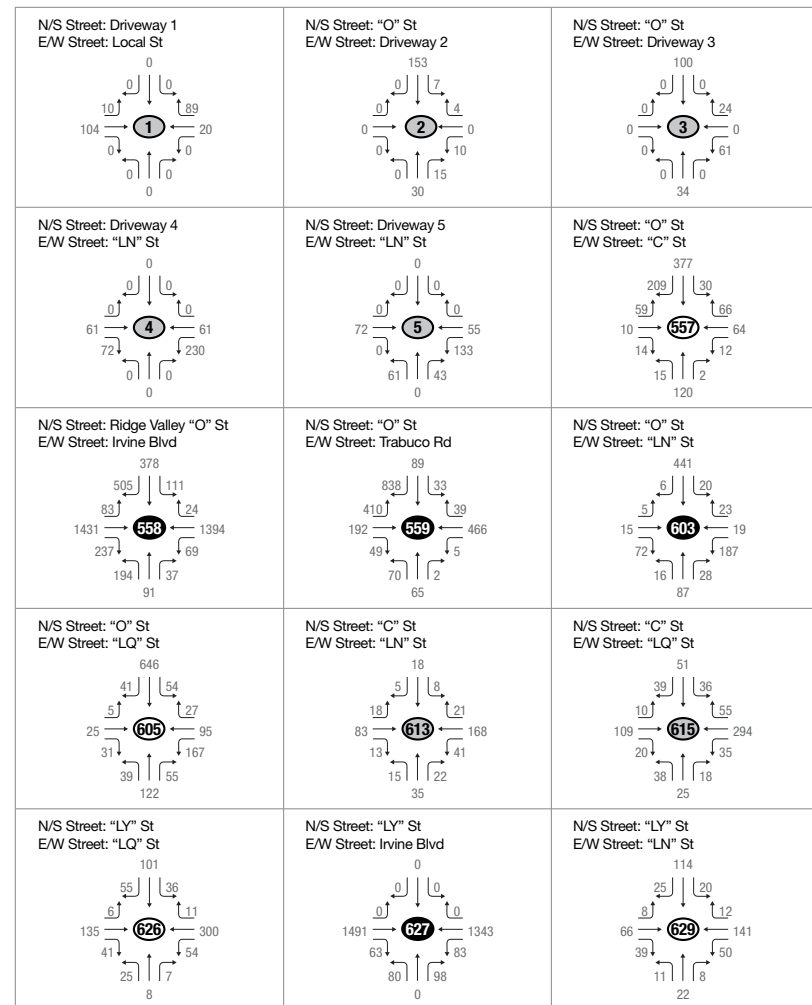
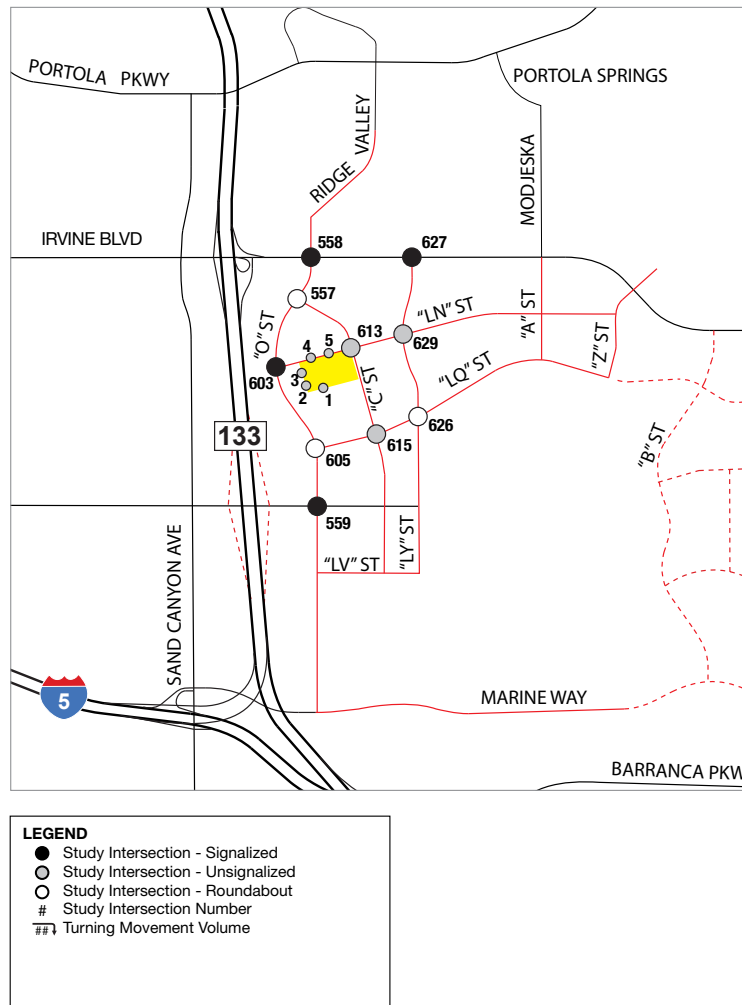
Figure 9 shows the year 2030 and post-2030 intersection geometry and control. Figures 10a and 10b show the year 2030 peak hour condition for the Approved Project (both the 2012 Modified Project Options 1 and 2). The interim year 2030 with project include one deficient roadway segment under the 2012 Modified Project Options 1 and 2 as shown in Table 18. However, although this segment is forecast to operate at an unacceptable LOS F, no change in V/C occurs from the no-project condition to the with-project condition. Therefore, there is no significant impacts to arterial segment would result from the Proposed Project.

Table 18 Year 2030 Deficient Arterial Segment

Street Name	Limits	# Lane	Capacity	2030 No Project ADT			2030 With Project ADT		
				ADT	V/C	LOS	ADT	V/C	LOS
2012 Modified Project Option 1									
Trabuco Road	West of "O" Street	4D	32,000	34,200	1.070	F	34,230	1.070	F
2012 Modified Project Option 2									
Trabuco Road	West of "O" Street	4D	32,000	34,400	1.080	F	34,430	1.080	F

Figure 8a - Year 2017 AM Peak Hour Volumes with Project (1 of 2)

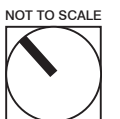
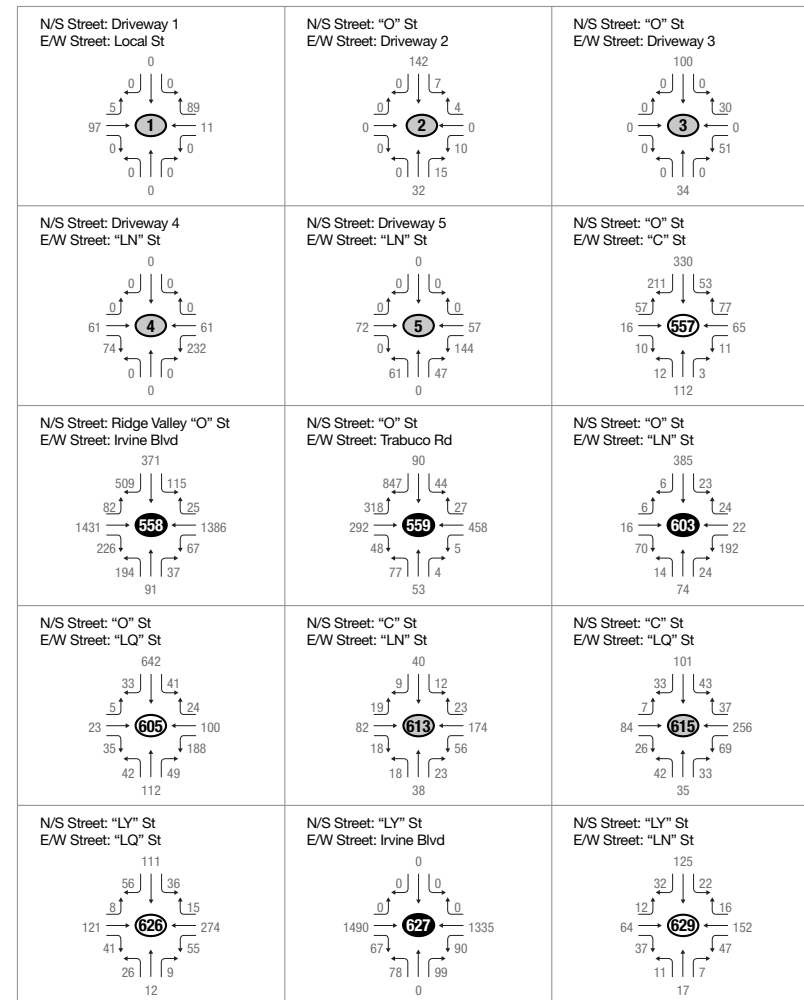
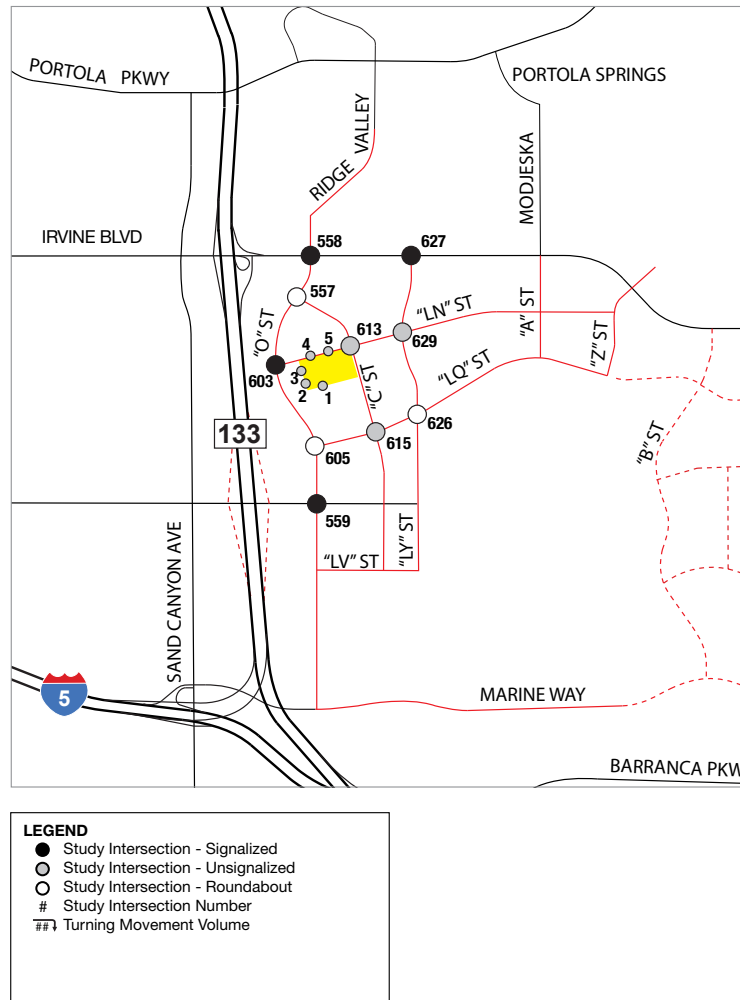
5. Environmental Analysis



5. Environmental Analysis

This page intentionally left blank.

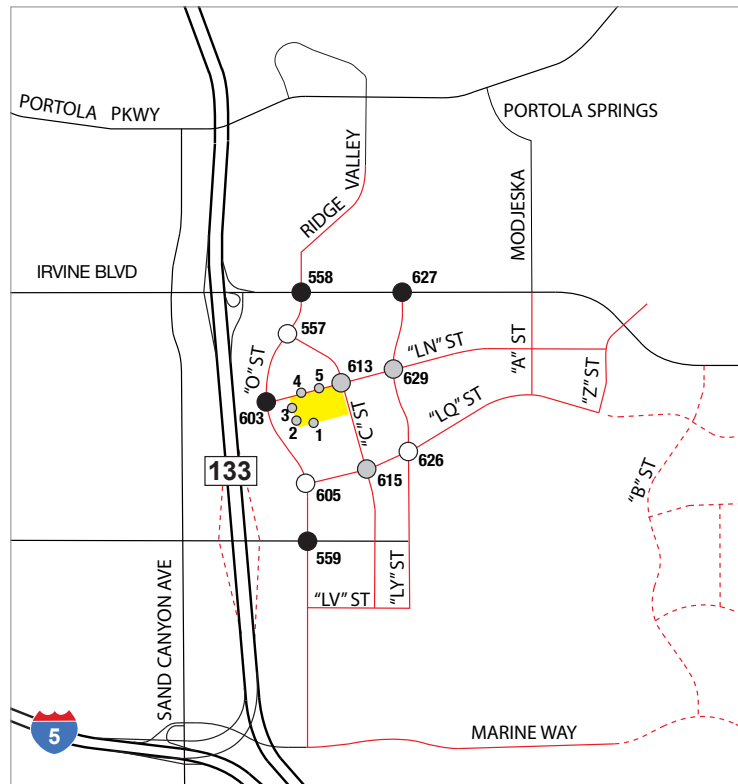
Figure 8b - Year 2017 AM Peak Hour Volumes with Project (2 of 2)
5. Environmental Analysis



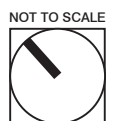
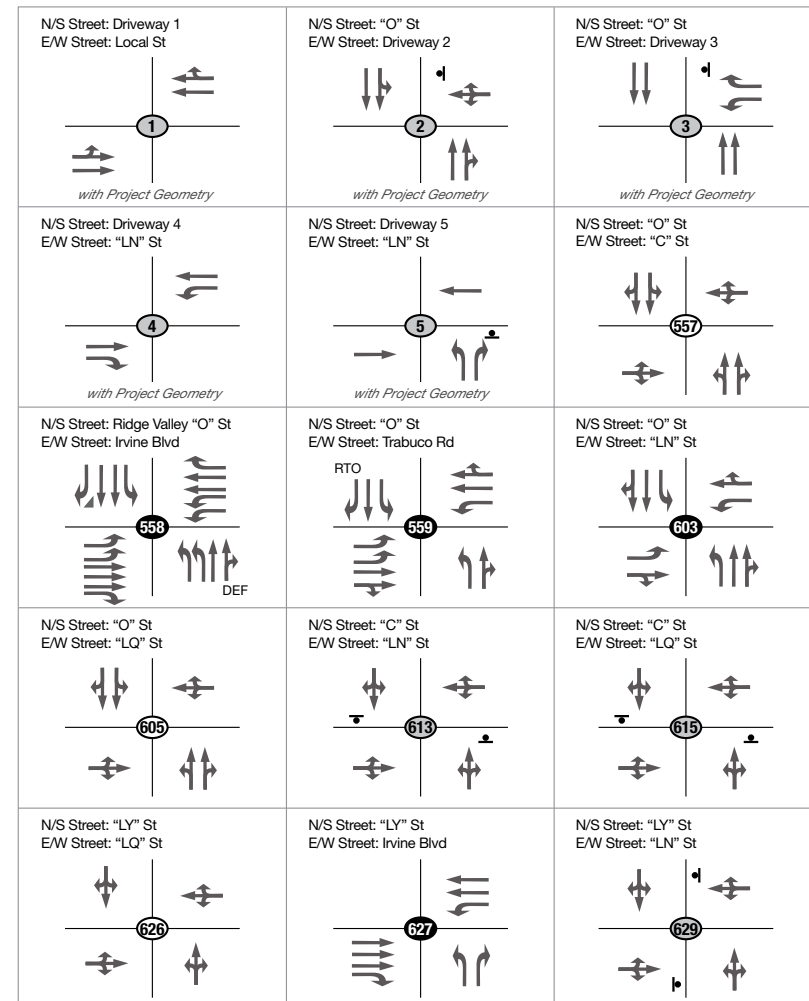
5. Environmental Analysis

This page intentionally left blank.

Figure 9 - Year 2030 and Post-2030 Intersection Geometry and Control
5. Environmental Analysis



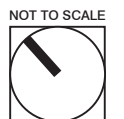
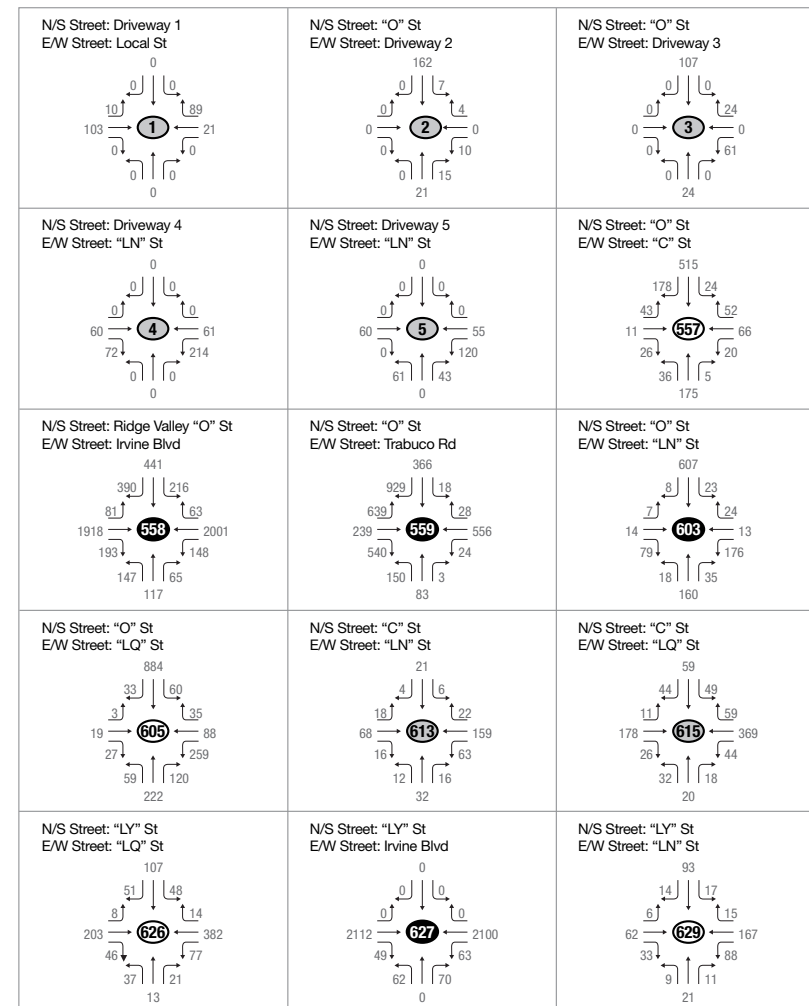
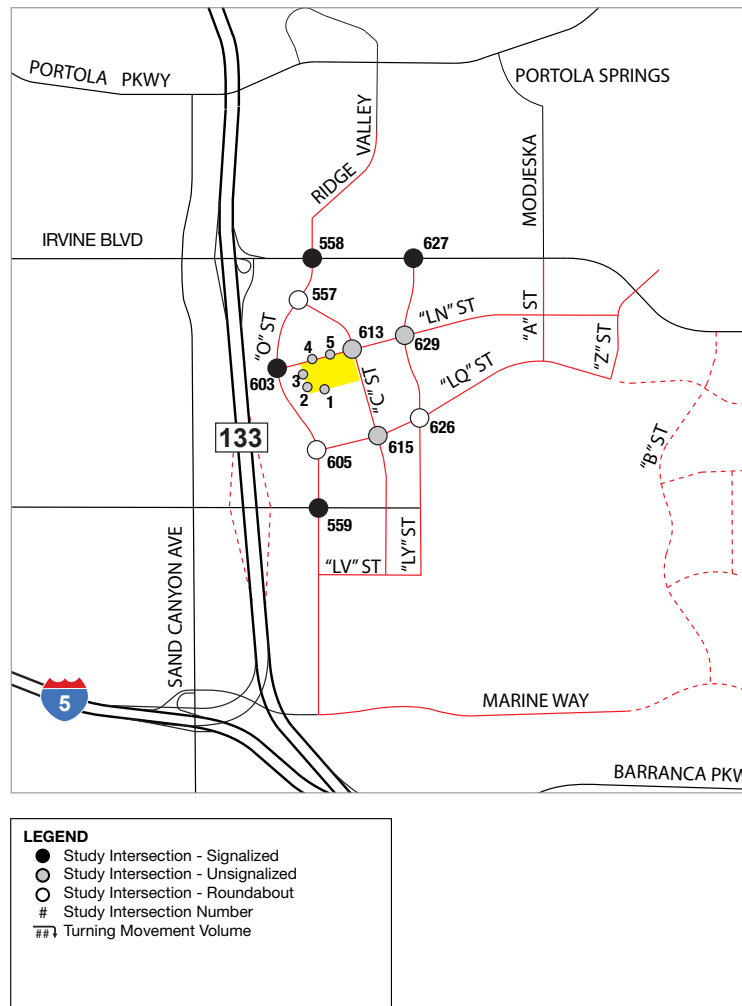
- LEGEND**
- Study Intersection - Signalized
 - Study Intersection - Unsignalized
 - Study Intersection - Roundabout
 - # Study Intersection Number
 - ▲ Stop Sign Movement Volume
 - Free Right Turn
 - DEF Defacto Right Turn
 - RTO Right Turn Overlap



5. Environmental Analysis

This page intentionally left blank.

Figure 10a - Year 2030 AM Peak Hour Volumes with Project (1 of 2)
5. Environmental Analysis

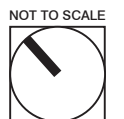
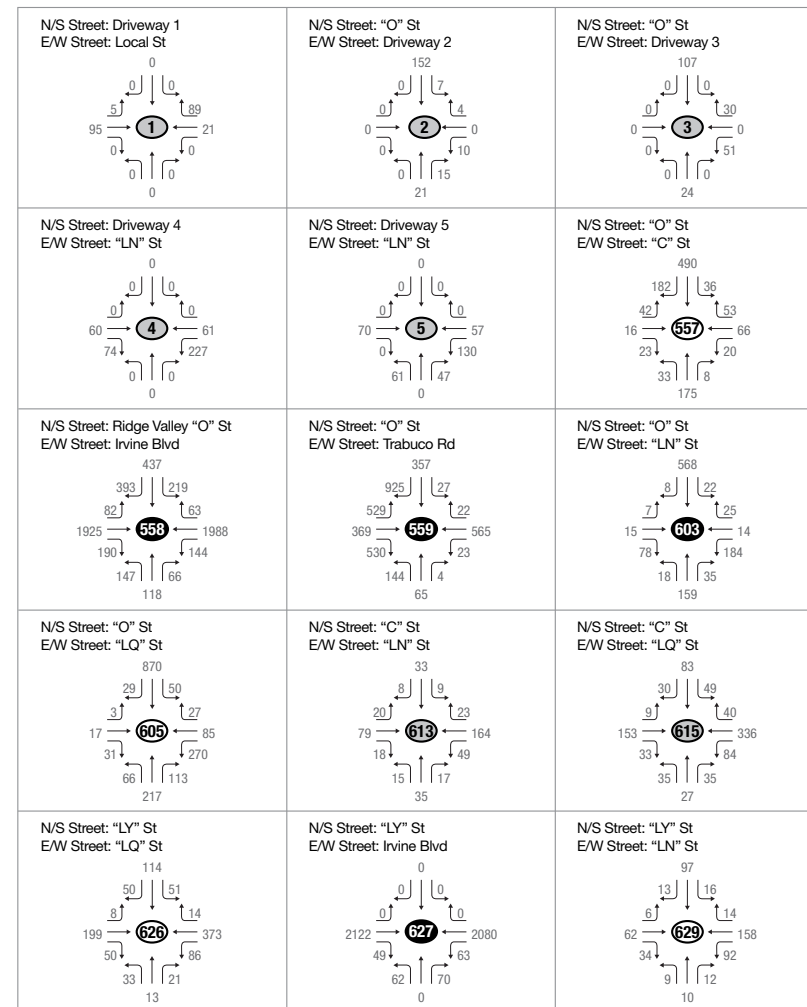
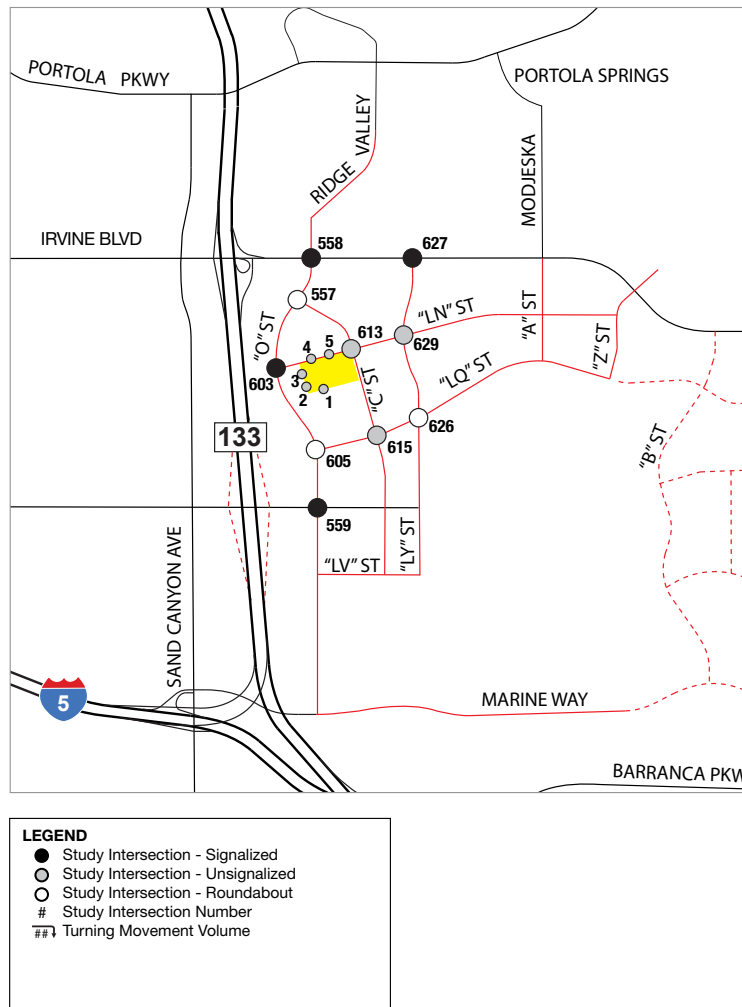


5. Environmental Analysis

This page intentionally left blank.

Figure 10b - Year 2030 AM Peak Hour Volumes with Project (2 of 2)

5. Environmental Analysis



5. Environmental Analysis

This page intentionally left blank.

5. Environmental Analysis

As shown Table 19, all study intersections are forecast to operate at acceptable LOS D or better, and no project-related impacts would occur.

Table 19 Year 2030 AM Peak Hour Intersection LOS Comparison

Intersection		Control	No Project		With Project		Change	Impact
			V/C	LOS	V/C	LOS		
2012 Modified Project Option 1								
1	Driveway 1 & "VV" St	U	0.06	A	0.19	A	0.13	No
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	No
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	No
4	Driveway 4 & "LN" St	U	0.18	A	0.22	A	0.04	No
5	Driveway 5 & "LN" St	U	0.16	A	0.22	A	0.06	No
557	"O" St & "C" St	R	0.38	A	0.39	A	0.01	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	No
559	"O" St & Trabuco Rd	S	0.84	D	0.86	D	0.02	No
603	"O" St & "LN" St	S	0.38	A	0.40	A	0.02	No
605	"O" St & "LQ" St	R	0.62	B	0.64	B	0.02	No
613	"C" St & "LN" St	U	0.24	A	0.31	A	0.07	No
615	"C" St & "LQ" St	U	0.39	A	0.44	A	0.05	No
626	"LY" St & "LQ" St	R	0.56	A	0.60	A	0.04	No
627	"LY" St & Irvine Blvd	S	0.54	A	0.54	A	0.00	No
629	"LY" St & "LN" St	U	0.33	A	0.37	A	0.04	No
2012 Modified Project Option 2								
1	Driveway 1 & "VV" St	U	0.06	A	0.18	A	0.12	No
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	No
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	No
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	No
5	Driveway 5 & "LN" St	U	0.17	A	0.24	A	0.07	No
557	"O" St & "C" St	R	0.38	A	0.39	A	0.01	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	No
559	"O" St & Trabuco Rd	S	0.83	D	0.85	D	0.02	No
603	"O" St & "LN" St	S	0.37	A	0.39	A	0.02	No
605	"O" St & "LQ" St	R	0.62	B	0.64	B	0.02	No
613	"C" St & "LN" St	U	0.26	A	0.33	A	0.07	No
615	"C" St & "LQ" St	U	0.38	A	0.43	A	0.05	No
626	"LY" St & "LQ" St	R	0.56	A	0.60	A	0.04	No
627	"LY" St & Irvine Blvd	S	0.54	A	0.54	A	0.00	No
629	"LY" St & "LN" St	U	0.33	A	0.36	A	0.03	No

Post-2030 Analysis

Figures 11a and 11b show post-2030 peak hour condition for the Approved Project (both the 2012 Modified Project Options 1 and 2). The post-2030 with project includes one deficient roadway segment under the 2012 Modified Project Options 1 and 2 as shown below in Table 20. However, although this segment is forecast to

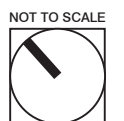
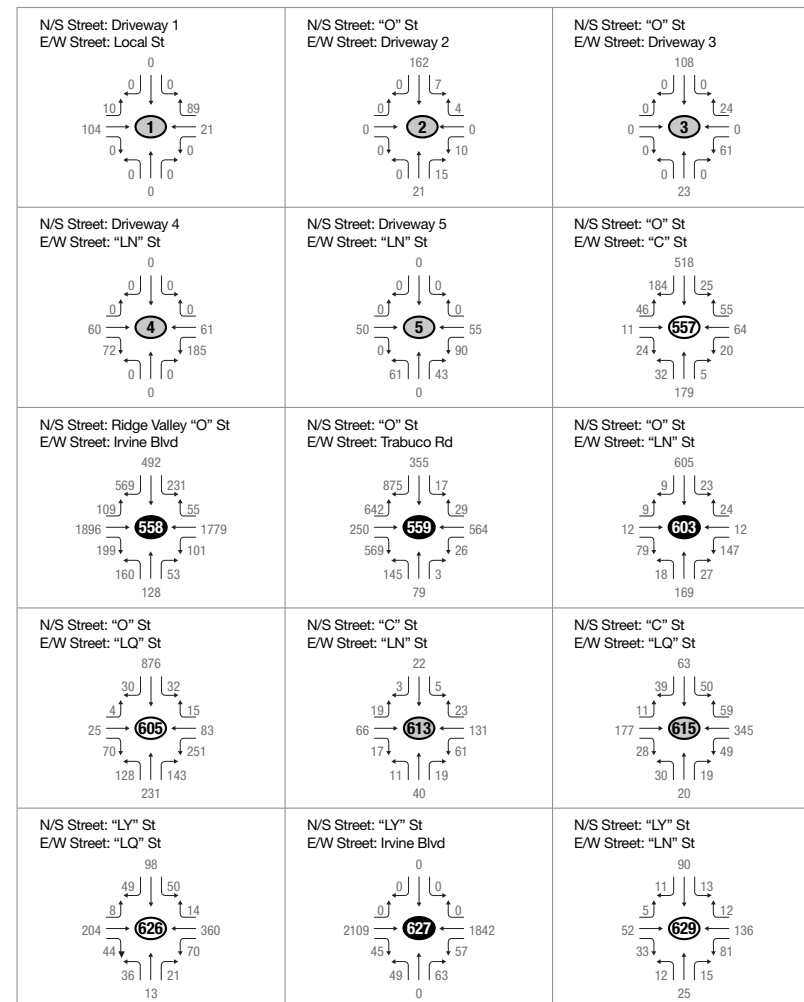
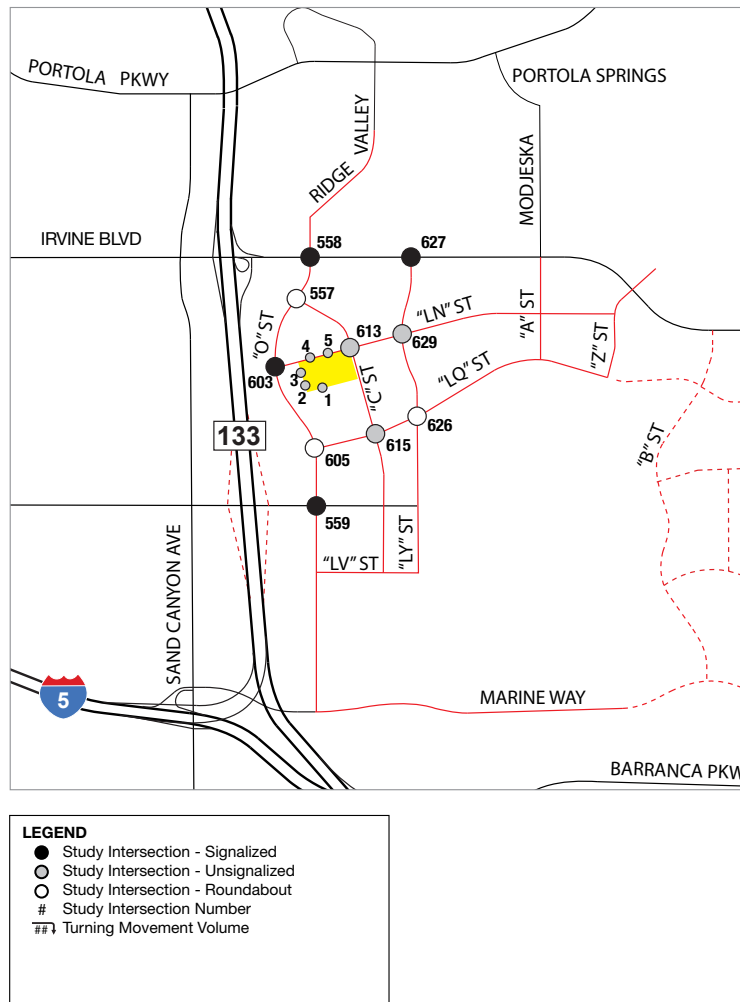
5. Environmental Analysis

operate at an unacceptable LOS F, no change in V/C occurs from the no-project condition to the with-project condition. Therefore, no significant impacts arterial segments would result from the Proposed Project.

Table 20 Post-2030 Deficient Arterial Segment

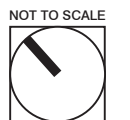
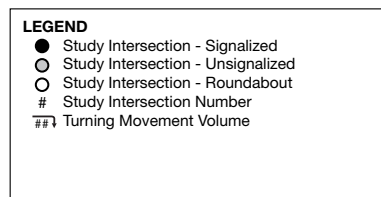
Street Name	Limits	# Lane	Capacity	Post 2030 No Project ADT			Post 2030 With Project ADT		
				ADT	V/C	LOS	ADT	V/C	LOS
2012 Modified Project Option 1									
Trabuco Road	West of "O" Street	4D	32,000	34,100	1.070	F	34,130	1.070	F
2012 Modified Project Option 2									
Trabuco Road	West of "O" Street	4D	32,000	34,430	1.080	F	34,430	1.080	F

Figure 11a - Post-2030 AM Peak Hour Volumes with Project (1 of 2)
5. Environmental Analysis



5. Environmental Analysis

This page intentionally left blank.



5. Environmental Analysis

This page intentionally left blank.

5. Environmental Analysis

As shown Table 21, all study intersections are forecast to operate at acceptable LOS D or better, and no project-related impacts would occur.

Table 21 Post-2030 AM Peak Hour Intersection LOS Comparison

Intersection		Control	No Project		With Project		Change	Impact
			V/C	LOS	V/C	LOS		
2012 Modified Project Option 1								
1	Driveway 1 & "VV" St	U	0.07	A	0.19	A	0.12	No
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	No
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	No
4	Driveway 4 & "LN" St	U	0.16	A	0.20	A	0.04	No
5	Driveway 5 & "LN" St	U	0.14	A	0.21	A	0.07	No
557	"O" St & "C" St	R	0.38	A	0.40	A	0.02	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	No
559	"O" St & Trabuco Rd	S	0.81	D	0.83	D	0.02	No
603	"O" St & "LN" St	S	0.36	A	0.38	A	0.02	No
605	"O" St & "LQ" St	R	0.65	B	0.67	B	0.02	No
613	"C" St & "LN" St	U	0.23	A	0.30	A	0.07	No
615	"C" St & "LQ" St	U	0.37	A	0.42	A	0.05	No
626	"LY" St & "LQ" St	R	0.54	A	0.57	A	0.03	No
627	"LY" St & Irvine Blvd	S	0.52	A	0.53	A	0.01	No
629	"LY" St & "LN" St	U	0.30	A	0.34	A	0.04	No
2012 Modified Project Option 2								
1	Driveway 1 & "VV" St	U	0.06	A	0.18	A	0.12	No
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	No
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	No
4	Driveway 4 & "LN" St	U	0.17	A	0.22	A	0.05	No
5	Driveway 5 & "LN" St	U	0.16	A	0.23	A	0.07	No
557	"O" St & "C" St	R	0.38	A	0.40	A	0.02	No
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	No
559	"O" St & Trabuco Rd	S	0.81	D	0.82	D	0.01	No
603	"O" St & "LN" St	S	0.36	A	0.38	A	0.02	No
605	"O" St & "LQ" St	R	0.65	B	0.67	B	0.02	No
613	"C" St & "LN" St	U	0.25	A	0.32	A	0.07	No
615	"C" St & "LQ" St	U	0.37	A	0.42	A	0.05	No
626	"LY" St & "LQ" St	R	0.54	A	0.58	A	0.04	No
627	"LY" St & Irvine Blvd	S	0.53	A	0.53	A	0.00	No
629	"LY" St & "LN" St	U	0.30	A	0.33	A	0.03	No

Site Access Analysis

The K-8 School site has five unsignalized access driveways located along "VV" Street, "LM" Street and "LN" Street. All access intersections are forecast to operate at LOS A or better for year 2017 and LOS B or better for

5. Environmental Analysis

year 2030 and post 2030. The average delays for all accesses are shown in Tables 8-1 to 8-4 of the Traffic Analysis Report included as Appendix E to this Addendum.

Signal Warrant Analysis

A signal warrant analysis was conducted at all unsignalized study intersections per the Manual on Uniform Traffic Control Devices (MUTCD). Based on the forecast volumes, traffic signals are not warranted at all unsignalized study intersections and site access driveways. Table 22 describes the MUTCD Signal Warrant descriptions. However, it is anticipated that all access driveways would be reevaluated when the Great Park Neighborhoods development proceeds.

Table 22 MUTCD Signal Warrants

		Intended Application	Based On
1	Eight-Hour Vehicular Volume	Where a large volume of intersecting traffic occurs throughout the day.	Approach volumes over an 8-hour period
2	Four-Hour Vehicular Volume	Where both the major and minor streets experience high volumes during any 4 hours during the day.	Volumes during the 4 highest hours
3	Peak Hour	Where the minor-street traffic suffers undue delay for a minimum of 1 hour of an average day.	Peak hour approach volumes
4	Pedestrian Volume	Where traffic is so heavy that pedestrians experience excessive delay when crossing the major street.	Pedestrian and major street volumes, traffic gaps
5	School Crossing	Where the fact that school children cross the major street is the main reason to consider a traffic signal.	Distance to nearest signal, volumes
6	Coordinated Signal System	To maintain progressive movement and properly platoon vehicles in a coordinated signal system.	Distance between signals, platooning
7	Crash Experience	Where the severity and frequency of crashes are the principal reason to consider installing a signal.	Crash history, 8-hour volumes, speed limit
8	Roadway Network	To encourage concentration and organization of traffic flow on a roadway network.	Peak hour and forecast volumes

Source: Manual on Uniform Traffic Control (MUTCD) Chapter 4C

Sight Distance Analysis

Table 23 includes the minimum sight distances for a passenger car to complete a left turn from a major roadway listed in the City of Irvine Transportation Design Procedures. It is anticipated that adequate sight distance for access roadways leading up to the K-8 School would be maintained per the City's and Caltrans Highway Design Manual. Therefore, minimum peripheral visibility would be maintained at all driveways and a clear line of sight would be provided at the intersection of "C" Street and "LM" Street (#613). No significant impacts are anticipated.

Table 23 Sight Distance Minimum Standards–Project Intersections

Street	Design Speed (mph)	Min Sight Distance (feet)
"LN" St	25	225
"VV" St	25	225
"LM" St	25	225
"C" St	25	225

5. Environmental Analysis

Parking Analysis

The K-8 School is proposing to provide 94 surface parking spaces per the most current site plan. The proposed ratio of parking spaces per student is consistent with the two other K-8 schools operated by IUSD in the City of Irvine. No parking demand impacts are anticipated. The 94 parking spaces are split into two surface parking lots. Lot "A" provides 67 parking spaces and is accessible via Driveway 1 and Driveway 2. Lot "B" provides 27 parking spaces and is accessible via Driveway 4. The design of the surface parking spaces is still ongoing, and the final number of parking spaces may change.

Forecast peak period parking generation for an elementary school of 1,000 students per the Institute of Transportation Engineers (ITE) Parking Generation Manual would be 170 parking spaces based on ITE rate of 0.17 space per student. Based on the forecast parking generation and proposed parking supply, the proposed parking supply is 76 parking spaces short of ITE forecast parking generation for an elementary school. However, factors such as nearby residential, busing policies, class size, student/teacher ratio, and the availability of adequate parent pick-up/drop-off zones all affect actual parking demand. The proposed K-8 School is located within walking distance of residential neighborhoods and provides two pick-up/drop-off locations.

There are currently two other existing K-8 schools in the City of Irvine. These schools, the provided parking spaces, student enrollment, and parking ratios (spaces/student) are provided in Table 24.

Table 24 Other IUSD K-8 School Parking Ratios

School	Students	Parking Space	Rate (space/student)
Plaza Vista K-8 School	929	98	0.11
Vista Verde K-8 School	950	77	0.08
Proposed K-8 School	1,000	94	0.09

The Proposed Project would provide slightly less parking space than Plaza Vista K-8 School and slightly more parking spaces than Vista Verde K-8 School. Based on the District's experience, 94 spaces provided for the Proposed Project was determined to be adequate. No significant parking impacts would occur.

Pedestrian and Bicycle Circulation

The preliminary site plan for the K-8 School shows landscaped pedestrian pathways throughout the school with connections to the various surface parking facilities. There are currently Class II bike lanes along Irvine Boulevard, Alton Parkway, and Sand Canyon Avenue. All access roads constructed as part of the Great Park Neighborhoods project are proposed to include sidewalks. In addition, bicycle facilities, including on-street lanes and off-street paths are proposed as part of the project. These project features will provide students with convenient pedestrian and bicycle routes to and from campus. The IUSD works with the City of Irvine and Irvine Police Department to develop Safe Routes to School plans for all schools in the district and a plan for the K-8 school would be developed by IUSD prior to school opening. Additionally, it is anticipated that the proposed school would provide bicycle lockers or racks on campus, as well as signage to increase awareness and safety of bicyclists and pedestrians. The Proposed Project would not conflict with the alternative transportation plans, policies, or programs compared to the Approved Project.

5. Environmental Analysis

Congestion Management Plan Requirements

The Orange County Congestion Management Program (CMP) monitors the level of service at all designated CMP intersections in the County. Irvine Boulevard is designated as a CMP roadway within the study area. None of the study intersections identified in this report are designated CMP intersections.

5.16.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

TRAN-1 Prior to the approval of any final map of a subsequent subdivision map (other than a financing and conveyance map) for any land use, excluding single family land uses (single family land use includes single family detached and single family attached projects), parks, schools, daycare, and religious institutions, that allocates building intensity within Combined Planning Area 51, the landowner or subsequent project applicant shall either (i) apply for annexation of any areas within the final map to the Irvine Spectrum Transportation Management Association (TMA) ("Spectrumotion") in accordance with Article X of the recorded Declaration of Covenants, Conditions and Restrictions (CC&Rs) for the Irvine Spectrum TMA, including any supplementary or amended CC&Rs, to reduce traffic, air-quality and noise impacts or (ii) develop and implement a similar transportation management plan containing the elements and meeting the criteria described below as approved by the Director of Public Works. The transportation management plan shall be implemented via payment of assessment dues to an organization similar to Spectrumotion for all land uses, with the exceptions noted above. While affordable housing units will be included, their assessment fees will be covered by other remaining adjacent land uses. The implementation (payment of assessment dues) for either option described above shall occur prior to issuance of building permit(s):

Transportation Management Plan (TMP)

The development and implementation of a Transportation Management Plan is an identified mitigation measure to manage transportation access for Combined Planning Area 51. This document summarizes the key elements of the TMP.

A. Introduction

5. Environmental Analysis

The purpose of this document is to provide an outline for a comprehensive TMP for the Combined Planning Area 51 (“Great Park TMP”). This report is not intended to provide the specific details of the plan, but rather to highlight the key components and provide direction for subsequent detailed planning and implementation activities. When preparation of the TMP is undertaken, all of the agency and stakeholders will be invited to provide input.

The applicant may elect to annex Combined PA 51 into the Irvine Spectrum Transportation Management Association (Spectrumotion). Spectrumotion is a private, non-profit Transportation Management Association (TMA) formed to reduce traffic congestion in Irvine Spectrum. Spectrumotion promotes, markets, and subsidizes alternatives to solo-commuting and assists the business community in complying with trip reduction related requirements. Membership is mandatory to property owners with deed restrictions requiring participation in the TMA. Membership dues provide the funding for the Association and its programs, which offer a variety of employer and commuter services focused on reducing vehicular trip generation.

In the event that the applicant elects not to annex into Spectrumotion, a TMP similar to that provided by Spectrumotion will be developed and implemented. This document sets forth the components of the TMP should it be necessary.

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/ Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

5. Environmental Analysis

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

C. Transportation Management Plan Implementation

As part of the TMP, a process will be established to monitor its effectiveness in reducing peak hour trip generation in the Combined PA 51. Provision shall be made for the Plan to be modified as appropriate to enhance its effectiveness.

- TRAN-2 Following adoption of a land use plan and circulation plan for the Great Park property and before the issuance of any building permits within the base property, the City of Irvine shall request a cooperative study with OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH). Marine Way, Trabuco Road from the SR-133 toll way to "O" Street (formerly College Road), and Ridge Valley (formerly "Y" Street) should be included on the MPAH.
- TRAN-3 Prior to issuance of the first building permit for dwelling units or nonresidential square footage, a Fee Reallocation Study shall be completed to recalculate the NITM Fees reflecting any fair share allocation modifications. The landowner or subsequent property owner shall submit the Fee Reallocation Study under a separate cover to be approved by the Director of Public Works, in consultation with the NITM Advisory Committee.
- TRAN-4 Prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the landowner or subsequent property owner shall pay the costs of the following mitigation in an amount to be mutually agreed upon between the landowner or subsequent property owner and the City and reflective of the costs of the mitigation at the time of payment:
- 286 Jeffrey Road & Roosevelt: Restripe the existing eastbound approach to provide a shared through/ right turn lane.
 - 361 Bake Parkway & Portola Parkway: Restripe the existing northbound approach to provide a shared through/left lane (which currently exists as a through lane) and modify the existing traffic signal operation for a north/south split phase signal operation. Alternatively, restripe the existing northbound approach to provide dual left turn lanes in combination with a single through lane and single right turn lane.

5. Environmental Analysis

- 374 Lake Forest & Portola Parkway (Pending Projects analysis impact): Convert the existing northbound approach from de-facto right-turn to a dedicated right-turn, and modify the existing traffic signal operation to include right turn overlap phase.

TRAN-5

(For specific Project-related non-NITM improvements): In conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in ~~this~~ the 2012 SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evaluation to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 16. Newport & Irvine—Modification of signal to provide a northbound right turn overlap phase. (2030, Option 2) Improvement no longer needed if Pending projects are approved.
- 54. Browning & Irvine—Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)
- 221. Culver & Bryan—Addition of a westbound defacto right turn lane. (2030, Option 2) Improvement no longer needed if Pending projects are approved.
- 286. Jeffrey & Roosevelt—Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)
- 290. Jeffrey & Barranca—Application of PA9C-identified ATMS. (2030. Options 1 & 2)
- 291. Jeffrey & Alton—Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (Post-2030, Options 1 & 2)

5. Environmental Analysis

- 303. Sand Canyon & I-5 NB ramp/Marine Way—Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)
- 306. Sand Canyon & Oak Canyon - Fair Share contribution towards—conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right-turn lane into a free-right turn lane, as identified in the PA40/12 GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.
- 321. Laguna Canyon & Old Laguna Canyon—Application of ATMS, subject to approval by the Director of Public Works. Alternate improvement is the addition of a fourth northbound through lane. (Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.
- 366. Bake & Rockfield—Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)

TRAN-6

(For specific Project-related NITM improvements): The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established NITM Program. The following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca—Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)
- 424. Los Alisos & Rockfield—Addition of a southbound right turn lane. (2030, Option 1) Improvement no longer needed if Pending projects are approved.
- I-5 Northbound Off-ramp to Jamboree—Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030, Option 1)

TRAN-7

(If pending projects are approved, Project-related non-NITM improvements): In the event that all of the pending (not approved) projects analyzed are approved and in conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in

5. Environmental Analysis

this the 2012 SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evaluation to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 54. Browning & Irvine–Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)
- 286. Jeffrey & Roosevelt–Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)
- 290. Jeffrey & Barranca–Application of PA9C-identified ATMS.
- 291. Jeffrey & Alton–Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (2030 & Post-2030, Options 1, Post-2030, Option 2)
- 303. Sand Canyon & I-5 NB ramp/Marine Way–Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)
- 366. Bake & Rockfield–Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)
- 417. El Toro & Portola–Fully funded LFTM improvement: Addition of a southbound right turn overlap phase. (2030, Options 1 & 2)

TRAN-8 (If pending projects are approved, For specific Project-related NITM improvements): The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for City of Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established

5. Environmental Analysis

NITM Program. In the event that all of the pending (not approved) projects analyzed are approved, the following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca—Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)
- I-5 NB Off-ramp to Jamboree—Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030 & Post-2030, Options 1 & 2)

TRAN-9 (Caltrans Fair Share): Prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- I-5 Northbound, north of Culver—Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)
- I-5 Northbound, north of Jeffrey—Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.
- I-405 Northbound, north of Jeffrey—Directional capacity enhancement equivalent to a single general purpose lane. (2030 and Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

TRAN-10 (If pending projects are approved, Caltrans Fair Share): In the event that all of the pending (not approved) projects analyzed are approved, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds

5. Environmental Analysis

generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- SR-133 northbound loop on-ramp at Barranca Parkway—Conversion of the HOV preferential lane to a second metered mixed-flow lane (2015, Option 2)
- I-5 Northbound, north of Culver—Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)

TRAN-11 (Rockfield MPAH Amendment): The City of Irvine shall submit a request to OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH) to eliminate the extension of Rockfield Boulevard from the eastern project boundary to Marine Way.

TRAN-12 (If Rockfield MPAH Amendment not approved by OCTA): In the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed, and in addition to previously identified Post-2030 Option 1 improvements, the land owner or subsequent property owner shall enter into a fair share agreement with the City of Irvine and shall make a good-faith effort to enter into a fair share agreement with Caltrans to establish its fair share allocation towards the future implementation of the conversion of the HOV preferential lane at the SR-133 northbound loop on-ramp at Barranca Parkway to a second metered mixed-flow lane. It may not be possible to successfully negotiate the agreement with Caltrans. The fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine. For Option 2, the mitigations as indicated in TRAN5 through TRAN10 remain unchanged in the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed.

5.17 UTILITIES AND SERVICE SYSTEMS

5.17.1 Environmental Setting

Existing Regulations and Standard Conditions

- California's Building and Energy Efficiency Standards (CCR Title 24)
- Title 24 Code Cycles: Net-Zero Buildings (Residential & Nonresidential)
- California Renewable Portfolio Standard

5. Environmental Analysis

Water Services

The Irvine Ranch Water District (“IRWD”) provides potable and nonpotable water service to the Project Site. IRWD is a multiservice agency that provides potable and nonpotable water supply and wastewater collection, treatment, and disposal services to a population of approximately 266,000, within an area covering 84,610 acres (132 square miles). IRWD’s service area encompasses Irvine; parts of unincorporated Orange County north and south of Irvine; parts of the Cities of Orange, Tustin, Santa Ana, and Costa Mesa west of Irvine; part of the City of Newport Beach south of Irvine; and part of the City of Lake Forest east of Irvine. IRWD is a member agency of the Orange County Water District (“OCWD”), and is the largest constituent agency of the Municipal Water District of Orange County (“MWDOC”) (IRWD 2005). MWDOC in turn, is a member agency of the Metropolitan Water District of Southern California (“MWD”), a consortium of 26 cities and water districts that supplies 19 million people with water including water from the State Water Project (“SWP”).

IRWD prepares two planning documents to guide water supply decision making: a Water Resources Master Plan (“WRMP”) and an Urban Water Management Plan (“UWMP”).

Water Supply

Water available to IRWD comes from groundwater pumped from the Orange County groundwater basin (including the Irvine Subbasin); captured local (native) surface water; recycled wastewater, and supplemental imported water supplied by MWD through the MWDOC.

Less than 25 percent of IRWD’s domestic water is purchased from the MWD and imported from the Colorado River via the Colorado River Aqueduct and the SWP. The majority of IRWD’s imported potable water is supplied from a single source, the MWD Diemer Filtration Plant, located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the MWD lower feeder and SWP water through the Yorba Linda Feeder. Groundwater now makes up approximately 75 to 80 percent of IRWD’s total potable water supply depending on a series of local wells, including Dyer Road Wellfield Project and the IRWD’s Deep Aquifer Treatment System (“DATS”). Recycled water, groundwater, and imported water account for IRWD’s nonpotable water supply. IRWD is an operator of groundwater producing facilities in the Orange County Groundwater Basin.

Wastewater

Wastewater Treatment

Wastewater treatment for wastewater generated from the Proposed Project Site is provided by IRWD at its Michelson Wastewater Reclamation Plant (“MWRP”; IRWD 2011). The MWRP has a capacity of 18 million gallons per day (mgd); expansion of the MWRP to a capacity of 28 mgd is underway, with planned completion in August 2012; average wastewater flows at the MWRP are approximately 18 mgd (Busald 2011).

Wastewater Collection

The primary sewer collection system that serves Existing Pas 30 and 51 is a two-branched system with flow from the northeast to the southwest, mainly by gravity. One lift station with two pumps is located in the

5. Environmental Analysis

southwest portion of Existing PA 51 in Building 375. The existing sewer infrastructure system on Existing Pas 30 and 51 consists of a series of polyvinyl chloride (“PVC”) pipes and vitrified clay pipes (“VCP”) ranging in size from 6-inches to 15-inches in diameter (CBA 2003).

Sewer discharge exits Existing Pas 30 and 51 via two 12-inch lines at the southwest boundary of the Proposed Project Site into the IRWD sewer system. The two 12-inch lines cross under the Metrolink railroad tracks and connect southwest of the tracks. The flows then combine and exit via an 18-inch VCP pipe. The design capacity of this 18-inch pipe is about 1,200 gallons per minute (GPM), or 1.73 mgd. The flow continues through the IRWD Alton-Bake Parkway Trunk Sewer System to the San Diego Creek Interceptor on the north side of the San Diego (I-405) Freeway (CBA 2003).

Solid Waste

OC Waste & Recycling (“OCWR”) is the government agency that regulates and operates the local Orange County landfills, including the Frank R. Bowerman Landfill, which is located in the City. Waste Management of Orange County is the private contract waste hauler for all residential developments in Irvine.

OCWR operates three landfills in Orange County, which are listed below in Table 25. Table 25 also shows the actual average daily rate of disposal, the maximum daily permitted capacity, the remaining capacity and the estimated closure date of each of the three landfills.

Table 25 OCWR Landfills

Landfill	City or Community	Disposal Rate, Tons per Day		Remaining Capacity, Cubic Yards	Estimated Closure Date
		Maximum Permitted	Actual		
Frank R. Bowerman	Irvine	11,500	5,500	198.1 million	2053
Prima Deschecha	San Juan Capistrano	4,000	1,000	133.4 million	2067
Alpha Olinda	Brea	8,000	5,000	48.8 million	2021

Source: OCWR 2012.

Assembly Bill (“AB”) 939 requires that each county and city prepare a source reduction and recycling element showing how it will meet diversion of solid waste from landfills goals of 25 percent by the year 1995, and 50 percent by the year 2000 and every year after. Compliance with AB 939 is now measured in terms of actual disposal amounts per person compared to target amounts; actual disposal amounts at or below targets are in compliance with AB 939. For 2008, the most recent year for which data is available, target disposal rates for Orange County in pounds per person per day (“ppd”) were 10.1 for residences and 9.3 for businesses. Actual disposal rates in Irvine were 5.7 ppd for residences and 6.6 ppd for businesses in 2010, the most recent year for which data is available (CalRecycle 2012b). Thus, the City is in compliance with AB 939 goals.

As of 2010, there were 39 programs in place in the City for diversion of solid waste from landfills. These include programs for composting, household hazardous waste, recycling, source reduction, and special waste materials such as construction and demolition debris (CalRecycle 2012a).

5. Environmental Analysis

5.17.2 Summary of Impacts Identified in the Certified EIR

Water Services

The Certified EIR analyzed the impacts on water supply and the ability of the IRWD to provide water to the Approved Project based on the Water Supply Assessment (“WSA”) prepared for the Approved Project. The WSA was prepared in compliance with Senate Bill 610 and SB 221. The analysis concluded that the estimated peak water demand under the Approved Project would be 1,896 gpm (2.7 mgd) or 2,029 gpm (2.9 mgd), depending on how land uses allocated. The water demands for the Approved Project would be consistent with the 2011 SAMP Sensitivity Analysis and the Certified EIR concluded that impacts to water services would be less-than-significant.

Wastewater

The Certified EIR analyzed the impacts on wastewater treatment capacity and the ability of IRWD to provide wastewater treatment services to the Approved Project and concluded that IRWD has adequate wastewater treatment capacity for the Approved Project’s estimated wastewater generation (IRWD 2012). The Certified EIR stated that final design of local sewer lines will occur at the time individual tract maps are submitted. Therefore, the Certified EIR determined that development of the Approved Project would not require construction of new or expanded wastewater treatment facilities and impacts would be less-than-significant.

Solid Waste

The Certified EIR identified that solid waste reduction would be achieved through the City requirement for recycling of construction and demolition material to reduce waste, as well as through compliance with AB 939, which requires that a minimum of 50 percent of the solid waste generated in cities in California be diverted from landfills. Senate Bill 1374 also requires that all cities implement measures that require diversion of 75 percent of all construction and demolition waste from landfills. The Certified EIR determined that there is adequate capacity at the Frank R. Bowerman Landfill for the solid waste generated by the Approved Project and implementation of mitigation measures would ensure less-than-significant impacts related to solid waste.

5.17.3 Impacts Associated with the Proposed Project

Existing Plans, Programs, or Policies and Project Design Features

The following measures are existing PPPs and PDFs that were developed as a result of the Certified EIR, which will help to reduce and avoid potential impacts related to utilities and service systems. It should be noted that the Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered a super pad condition, completed with backbone infrastructure (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities, for the District to construct school facilities. Therefore, some of the measures will be implemented by Heritage Fields and its construction contractors and not directly by the District.

PPP 13-1 Requirement to Use Recycled Water: Irvine Ranch Water District (IRWD) will identify areas within the Sub Area Master Plan that are capable of receiving service from the IRWD’s recycled

5. Environmental Analysis

water system, and will determine the feasibility of providing recycled water service to these areas. IRWD will also review applications for new permits to determine the feasibility of providing recycled water service to these applicants. If recycled water service is determined by IRWD to be feasible, applicants for new water service shall be required to install on-site facilities to accommodate both potable water and recycled water service in accordance with IRWD's Rules and Regulations.

- PPP 13-2 Connection Fees: The Project Applicant shall enter into agreement or agreements as necessary with IRWD to establish the appropriate financial fair share costs to be borne by the project proponent. Fair share costs may include, but are not limited to, those associated with the preparation of studies necessary to analyze the needs of the 2012 Modified Project and infrastructure expansion necessary to serve the 2012 Modified Project.
- PPP 13-3 Fire Flow Analysis: In accordance with IRWD requirements, each tentative tract map in the 2012 Modified Project must provide a fire flow analysis. If the analysis identifies any deficiencies, the developer will be responsible for any water system improvements associated with the development project required to rectify the deficiencies and meet IRWD fire flow requirements.
- PPP 13-4 The City Construction and Demolition (C&D) Debris Recycling and Reuse ordinance requires that 1) all residential projects of more than one unit, 2) nonresidential developments on 5,000 square feet or larger, and 3) nonresidential demolition/renovations with more than 10,000 square feet of building recycle or reuse a minimum of 75 percent of concrete and asphalt and 50 percent of nonhazardous debris generated.
- PPP 13-5 The City adopted a Zero Waste program in 2007 to approach waste management. The City recovers approximately 66 percent of its waste for recycling and composting, which exceeds the state's AB 939 waste diversion goals. Furthermore, waste haulers establish rate schedules according to bin size and frequency of collection. Commercial customers that subscribe to smaller bins (e.g., two cubic-yard bins) are routinely charged less by haulers. This pricing structure encourages waste reduction and recycling, and tends to minimize hauler pickups.
- PPP 13-6 The Irvine Sustainable Community Initiative (Initiative Ordinance 10-11), adopted by the voters of the City as Initiative Measure S on November 2, 2010, and certified by the City Council on December 14, 2010, became effective December 24, 2010. The ordinance was adopted to ratify and implement policies in support of renewable energy and environmental programs for a sustainable community. It outlines the City's direction for continuing to develop and implement programs geared towards green building, renewable energy and sustainability. For example, the City would continue to develop and implement recycling, zero waste or other innovative onsite business programs to divert waste from landfills and also continue to develop and implement the use of native, California-friendly and drought-tolerant landscaping.
- PPP 13-7 Prior to the issuance of grading permits for a project that involves the demolition of an asphalt or concrete parking lot on site, the applicant shall submit a waste management plan demonstrating compliance with the requirements of Title 6, Division 7 of the City of Irvine

5. Environmental Analysis

- Municipal Code relating to recycling and diversion of demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 2.24).
- PPP 13-8 Prior to the issuance of building permits for a project that involves new construction or that involves the demolition or renovation of existing buildings on site, the applicant shall comply with requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of construction and demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 3.7).
- PDF 4-3 Low-Flow Fixtures: The 2012 Modified Project incorporates low-flow water fixtures that will meet the requirements of the California Green Building Standards Code standards. Prior to issuance of building permit, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that toilets, urinals, sinks, showers, and other water fixtures installed on-site are low-flow water fixtures that meet the California Green Building Standards Code standards.
- PDF 4-4 Landscaping and Irrigation Systems: The 2012 Modified Project incorporates automated, high-efficiency landscaping irrigation systems on all master landscaped areas that reduce water use, such as evapotranspiration “smart” weather-based irrigation controllers, and bubbler irrigation; low-angle, low-flow spray heads; moisture sensors; and use of a California-friendly landscape palette. Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that such landscaping irrigation systems will be installed so as to make the 2012 Modified Project consistent with the intent of the California Water Conservation in Landscaping Act of 2006 (AB 1881), including provisions to reduce the wasteful, uneconomic, inefficient, and unnecessary consumption of water.
- PDF 4-5 Use of Recycled Water on All Master Landscaped Areas: Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development and IRWD that the 2012 Modified Project incorporates the use of recycled water in all master landscaped areas, including master landscaped commercial, multifamily, common, roadways, and park areas. Master landscapes will also incorporate weather-based controllers and efficient irrigation system designs to reduce overwatering, combined with the application of a California-friendly landscape palette.

Would the proposed project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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:*Water*

The Proposed Project involves the construction and operation of a K-8 school. The Approved Project included a 1,000-student capacity K-8 school in the Certified EIR analysis as part of the land use plan. Therefore, no changes from the Approved Project would occur, the water supply would be sufficient to account for the construction and operation of the Proposed Project. No impact is anticipated.

Wastewater

The Certified EIR concluded that IRWD has adequate wastewater treatment capacity to meet the estimated wastewater generation of the Approved Project and would not require construction of new or expanded

5. Environmental Analysis

wastewater treatment facilities. The Proposed Project was included as part of the approved land use plan. Although the Certified EIR indicated that development of the Approved Project would require expansion of existing IRWD sewers, the District would receive a rough graded site with utility connections installed for the overall Great Park Neighborhoods. Therefore, no changes to the Approved Project would occur to result in a significant impact. No significant impacts related to wastewater would result from the Proposed Project.

Solid Waste

The Certified EIR determined that there is adequate landfill capacity at Frank R. Bowerman Landfill to accommodate the Approved Project. The proposed school was included in the approved land use plan. Assuming 1 lb/student/day as estimated by the Certified EIR, the Proposed Project would generate approximately 1,000 lbs of wastes per day. Typical school solid wastes include papers, organic (food, green waste, etc.), plastic, glass and metal. The Certified EIR was sufficient to account for the construction and operation of the Proposed Project and no changes in volume or type of wastes evaluated under the Certified EIR would result from the Proposed Project.

To reduce the amount of waste going into local landfills from schools, the state passed the School Diversion and Environmental Education Law (DEEL) (SB 373), which required the Department of Resources Recycling and Recovery (CalRecycle) to develop school waste reduction tools for use by school districts. In compliance with this law, CalRecycle encourages school districts to establish and maintain a paper recycling program in all classrooms, administrative offices, and other areas owned and leased by the school district. Participation in this and other such programs would reduce solid waste generated from the proposed project and assist in compliance with AB 939. The District is required to deposit all solid waste at a permitted solid waste facility and, therefore, will comply with federal, state, and local statutes and regulations related to solid waste. Therefore, impacts would be less-than-significant.

5.17.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The Proposed Project would not result in significant utilities and service systems impacts and no mitigation measures are necessary.

The Mitigation Agreement between the District and Heritage Fields provides for the project site to be delivered to the District in a super pad condition, mass graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures were taken directly from the Certified EIR as they apply to the Proposed Project and have been modified as applicable to reflect the updated timing and change in lead agency. Modifications to the original mitigation measures are identified in ~~strikeout text~~ to indicate deletions and underlined to signify additions.

SW-1 It is anticipated that much of the solid waste resulting from the demolition, dismantling, or other deconstruction of the aged structures and property, including but not limited to buildings and runways, at MCAS El Toro is contaminated with lead-based paints, asbestos, or other materials that may render it unsuitable for recycling or reuse. At the sole cost and

5. Environmental Analysis

expense of the project applicant, in order to evaluate this condition and determine the feasibility of recycling of solid waste material from the MCAS El Toro site by ordinary means, a technical evaluation by a qualified environmental consultant must be conducted. The technical evaluation shall include sufficient sample testing of all types of solid waste materials to be generated by the project to analyze its composition. A copy of the full technical evaluation and its findings must be submitted to the City of Irvine Community Development Department. The City of Irvine must confirm the adequacy of the technical evaluation prior to authorizing the demolition, dismantling, or deconstruction project to proceed. If it is determined by the technical evaluation that material is contaminated and prohibited from being recycled by ordinary means, a further evaluation must be conducted to identify and evaluate other feasible methods approved by state law to divert the material from landfills. This may include the delivery of the waste material to other appropriate non-disposal or transformation facilities, such as “waste-to-energy” (WTE) plants.

SW-2 For that solid waste which is determined to be inappropriate for recycling (as that term is defined by California Public Resources Code Section 40180), the project applicant must submit a written plan to the City and implement such plan to ensure that 75% of the material, or the maximum amount feasible as determined by the technical evaluation, is diverted from the landfill through other methods that comply with state statutes and regulations.

SW-3 For that solid waste which the technical study deems to be suitable for recycling, the project applicant must submit a written plan to the City and implement such plan to ensure that solid waste material generated by the demolition, dismantling, or deconstruction project, land use operations and maintenance is collected by a City authorized solid waste hauler or recycling agent, and that a minimum of 75% of the solid waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180 (“Recycling” does not include transformation, as defined in Public Resources Code Section 40201).

SW-4 To ensure ongoing compliance with these mitigation measures, the project applicant will be required to submit solid waste tonnage reports to the City of Irvine on City approved forms, accompanied by “weight ticket” receipts from state-certified disposal, non-disposal, or transformation facilities, on a quarterly basis to demonstrate that solid waste diversion has occurred in accordance with these required mitigation measures and in a manner that is consistent with, and not detrimental to, the efforts of the City of Irvine to comply with AB939.

To assure compliance with applicable statutes related to the disposal of solid waste, it is necessary for the City to require appropriate and effective mitigation measures to limit the disposal and ensure significant recycling of solid waste on-site.

5. Environmental Analysis

- SW-5 For green waste, the project applicant must submit a written plan to the City and implement such plan to ensure that the green waste material generated by landscape maintenance operations is collected by a City authorized waste hauler or recycling agent, that the maximum feasible amount of that collected green waste is recycled, and that a minimum of 50% of the green waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180.

5.18 MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less-than-significant Impacts/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	

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 Impacts/No Changes or New Information Requiring Preparation of an EIR.
The Approved Project included a 1,000-student K-8 school in District 1 North and the Certified EIR

5. Environmental Analysis

analyzed its impacts on a programmatic level. The Proposed Project does not change the location or capacity of the new school. Therefore, the geographic range and severity of impacts to biological or cultural resources resulting from the Proposed Project would be same as those that would result from implementation of the Approved Project. The Proposed Project would not result in any new impacts or substantially increase the severity of previously disclosed impacts related to biological or cultural resources. Thus, preparation of supplemental or subsequent EIR is not required by CEQA.

- 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.)**

Less-than-significant Impacts/No Changes or New Information Requiring Preparation of an EIR.

The Approved Project included a 1,000-student K–8 school in District 1 North and the Certified EIR analyzed its impacts in a programmatic level. Therefore, the Proposed Project would not result in any new cumulatively considerable impacts or substantially increase the severity of previously disclosed cumulatively considerable impacts. Thus, preparation of supplemental or subsequent EIR is not required by CEQA.

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

Less-than-significant Impacts/No Changes or New Information Requiring Preparation of an EIR.

The Approved Project included a 1,000-student K–8 school in District 1 North and the Certified EIR analyzed its impacts in a programmatic level. Therefore, compared to the Approved Project, the Proposed Project would not result in any new substantial adverse impacts or substantially increase the severity of previously disclosed adverse impacts. Thus, preparation of supplemental or subsequent EIR is not required by CEQA.

5. Environmental Analysis

This page intentionally left blank.

6. List of Preparers

Irvine Unified School District

John Fogarty	Assistant Superintendent, Business Services
Lloyd Linton	Director, Construction & Facilities
Lorrie Ruiz	Assistant Director, Facilities Planning
Dana Grudem	Supervisor, Facilities Planning
Ryan Zajda	Supervisor, Construction Services
Ana Gonzales	Supervisor, Facilities Planning

PLACEWORKS

Peter Garcia	Associate Principal, Environmental Services
Elizabeth Kim	Associate, Environmental Services
Mike Watson	Associate Geologist, Environmental Services
Nicole Vermilion	Associate Principal, Air-quality and Greenhouse Gases
Bob Mantey	Manager, Noise, Vibration, and Acoustics
Gina Froelich	Senior Editor
Cary Nakama	Graphic Artist

6. List of Preparers

This page intentionally left blank.

7. References

- California Air Resources Board (CARB). 1999, December. Final Staff Report: Update to the Toxic Air Contaminant List.
- . 2008, October. Climate Change Proposed Scoping Plan, a Framework for Change.
- . 2011, Feb. Air Quality Statistics. <http://www.arb.ca.gov/html/ds.htm>
- . 2011, June 23. Area Designations: Activities and Maps. <http://www.arb.ca.gov/desig/adm/adm.htm>
- . 2012, April. California Greenhouse Gas Inventory for 2000–2009: By Category as Defined by the Scoping Plan. <http://www.arb.ca.gov/cc/inventory/inventory.htm>.
- . 2013, July. Ambient Air Quality Standards. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
- California Climate Action Team (CAT). 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature.
- California Department of Transportation (Caltrans). 2004, June. Transportation- and Construction-Induced Vibration Guidance Manual. Prepared by ICF International.
- . 2009, November. Technical Noise Supplement (“TeNS”). Prepared by ICF International.
- . 2013. California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/scenic_highways/
- Department of Conservation (DOC). 2013a. California Important Farmland Finder. <http://maps.conservation.ca.gov/ciff/ciff.html>.
- . 2013b. Alquist-Priolo Earthquake Fault Zone Maps, City of Irvine. <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>.
- Department of Toxic Substances Control (DTSC). 2013. EnviroStor. <http://www.envirostor.dtsc.ca.gov/public>.
- Irvine, City of. Municipal Code. <http://library.municode.com/index.aspx?clientId=10941>.
- . Zoning Code. <http://library.municode.com/index.aspx?clientId=13239>.
- Irvine Ranch Water District (IRWD). 2007, July 11. Water Resources Master Plan.
- . 2011. Water Supply Assessment for Heritage Fields Planning Areas 30 and 51.

7. References

- . 2011. Water Supply Verification for Heritage Fields Vesting Tentative Tract Maps 17283, 17364, 17366, 17368 and 17202 in Planning Area 51.
- . 2011. Planning Areas 30 & 51 Great Park /Great Park Neighborhoods Sub-Area Master Plan (SAMP).
- . 2005. Urban Water Management Plan (UWMP).
- . 2012, June. Water Supply Assessment for the Heritage Fields Project 2012 GPA/ZC.
- Division of Mines and Geology (DMG). 2001, January 17. State of California Seismic Hazard Zones, El Toro Quadrangle Official Map. California Department of Conservation. http://gmw.consrv.ca.gov/shmp/download/quad/EL_TORO/maps/ozn_elt.pdf.
- Federal Emergency Management Agency (FEMA). Map Service Center. US Department of Homeland Security. <https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>.
- Intergovernmental Panel on Climate Change (IPCC). 2001. 2001 IPCC Third Assessment Report: Climate Change 2001.
- Orange County Fire Authority (OCFA). 2011. *OCFA Fire Stations*. http://www.ocfa.org/_uploads/maps/stationlocator-map.html.
- South Coast Air Quality Management District (SCAQMD). 2003, June. Final Localized Significance Threshold Methodology.
- . 2005, May. Guidance Document for Addressing Air-quality Issues in General Plans and Local Planning.
- . 2006, October. Final Methodology to Calculate PM_{2.5} and PM_{2.5} Significance Thresholds.
- . 2008, September. Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III).
- Southern California Association of Governments (SCAG). 2008. Southern California Association of Governments, Regional Comprehensive Plan.
- . 2012, April 4. Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS).
- State Water Resources Control Board (SWRCB). 2013. Geotracker. <http://geotracker.waterboards.ca.gov/default.asp>.
- . 2013. US Marine Corps Air Station El Toro-OU-2C-IRP-3 Original Landfill (DOD100131300). http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=DOD100131300.
- Superfund Information Systems, Superfund Site Progress Profile. <http://www.epa.gov/superfund/sites/npl/nar1143.htm>.

7. References

US Environmental Protection Agency (EPA). 2013. NPL Site Narrative for El Toro Marine Corps Air Station. National Priorities List (NPL) CA6170023208. <http://www.epa.gov/superfund/sites/query/queryhtm/nplmapsg.htm>.

Weltz, Jerry. 2003. Planning Advisory Service Report Number 516: Jobs-Housing Balance. American Planning Association.

7. References

This page intentionally left blank.

Appendix

Appendix A Air-quality and Greenhouse Gas Emission Data

Appendix

This page intentionally left blank.

CalEEMod – Assumptions & Worksheets

Air Quality and GHG Assumptions - IUSD Proposed Heritage Fields K-8 School

Location: Irvine, Orange County, CA
 Air Basin: South Coast Air Basin
 Air District: South Coast Air Quality Management District
 Climate Zone: 8
 SRA: 19

Utility			
Utility Company: SCE			
Project			
	STUDENTS	STAFF	
K-8 School	1,000	70	
	SQFT	ACRE	CalEEMod Category
Total Building Square Feet	77,180	1.77	Elementary School
Parking Lot + Non-Parking Asphalt		3.35	Parking Lot
Hardscape		1.63	Other Non-Asphalt Surfaces
Playfields		6.25	(acreage in Elementary School)
Total acreage		13.01	
		8.02	total ES acreage
Trip Generation: IBI Group			
	Trips	CalEEMod Trip Rate	
School (Weekday)	1,290	16.71	
Student Trip Length (Google Maps)	6.4	miles	
Water: CalEEMod Default for Elementary School			
		GALONS/YEAR	GALLONS/DAY
Indoor Water		2,237,982	6,131
Outdoor	100% Recycled	5,754,811	15,767
*IRWD supplies reclaimed water for irrigation.			
Waste: CalEEMod Default for Elementary School			
		TONS/YEAR	LBS/DAY
Solid Waste		100	550
Electricity: CalEEMod Default for Elementary School			

Buildings constructed after January 1, 2014 are required to meet the 2013 Building and Energy Efficiency Standards. The 2013 Standards are 30% more energy efficient for non-residential buildings and 25% more energy efficient for residential buildings than the 2008 Building and Energy Efficiency Standards.

Construction Assumptions

*According to the information received from the district, Construction to occur between August 2014 and June 2016.

Default construction schedule in CalEEMod adjusted accordingly

Phase	Start Date	End Date	Total
Site Preparation	8/1/2014	11/30/2014	86
Grading	12/1/2014	3/31/2015	86
Building Construction	4/1/2015	5/31/2016	305
Paving (parking lots and playfields)	1/14/2016	4/15/2016	67
Architectural Coating*	1/1/2016	5/31/2016	108

Assumes 1 month for each building (5 main buildings in schedule - exterior and interior)

Changes to the CalEEMod Defaults - Fleet Mix (2016 Fleet Mix)

Countywide fleet mix not applicable at a project level:

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix	0.511008	0.057223	0.191597	0.152361	0.041328	0.005882	0.015289	0.014281	0.001428	0.002141	0.004713	0.000509	0.002239	100.00%
Percent	76%			15%				8%						100%
Proportion	0.668385	0.074846	0.250604	1.000000	0.497346	0.070785	0.183990	0.171859	0.017185	0.025765	0.006164	0.006125	0.026944	
Assumed Mix	97%			2%				1%						100.0%
adjusted with Assumed	0.648334	0.072601	0.243086	0.020000	0.004973	0.000708	0.001840	0.001719	0.000172	0.000258	0.005980	0.000061	0.000269	100%
Trips	836	94	314	26	6	1	2	2	0	0	8	0	0	1290
Calibrated so no motorhomes, no LHDT, HHDT or MHDT	0.648334	0.072601	0.243086	0.020000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005980	0.010000	0.000000	100.0%
Modified	0.648334	0.072601	0.243086	0.020000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005980	0.010000	0.000000	100.0%
Trips	836	94	314	26	0	0	0	0	0	0	8	13	0	1290

Trips 1,290

Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school buses.

CONSTRUCTION WORKSHEET

3.2 Site Preparation - 2014 Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Fugitive Dust						7	4
Off-Road		1	25	23	0	1	1
Hauling		0	0	0	0	0	0
Vendor		0	0	1	0	0	0
Worker		0	0	1	0	0	0
Total		1	25	25	0	8	5

3.3 Grading - 2014 Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Fugitive Dust						3	1
Off-Road		2	32	38	0	1	1
Hauling		0	0	0	0	0	0
Vendor		0	0	1	0	0	0
Worker		0	0	1	0	0	0
Total		2	33	40	0	5	3

3.3 Grading - 2015 Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Fugitive Dust						3	1
Off-Road		2	32	38	0	1	1
Hauling		0	0	0	0	0	0
Vendor		0	0	1	0	0	0
Worker		0	0	1	0	0	0
Total		2	33	40	0	5	3

3.4 Building Construction - 2015 Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Off-Road		1	18	18	0	1	1
Hauling		0	0	0	0	0	0
Vendor		1	5	6	0	0	0
Worker		0	1	7	0	1	0
Total		2	23	32	0	3	1

3.4 Building Construction - 2016
Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Off-Road		1	18	18	0	1	1
Hauling		0	0	0	0	0	0
Vendor		0	4	6	0	0	0
Worker		0	1	6	0	1	0
Total		2	22	31	0	3	1

3.5 Architectural Coating - 2016
Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Archit. Coating		13				0	0
Off-Road		0	1	2	0	0	0
Hauling		0	0	0	0	0	0
Vendor		0	0	0	0	0	0
Worker		0	0	1	0	0	0
Total		13	1	3	0	0	0

3.6 Paving - 2016
Mitigated Construction On-Site

Category	lb/day	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Off-Road		1	11	17	0	1	1
Paving		0				0	0
Hauling		0	0	0	0	0	0
Vendor		0	0	0	0	0	0
Worker		0	0	1	0	0	0
Total		1	11	18	0	1	1

Overlap Paving + Coating + Building	16	35	52	0	4	2
--	----	----	----	---	---	---

MAXIMUM	47	299	376	1	47	28
SCAQMD THRESHOLD	75	100	550	150	150	55

Approved Project	1,491	2,252	1,595	5	9,204	114
compare	-1,444	-1,953	-1,219	-4	-9,157	-86

CONSTRUCTION LST WORKSHEET

3.2 Site Preparation - 2014 Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Fugitive Dust				6.7	3.7
Off-Road		25	23	1.0	1.0
Total		25	23	7.7	4.6
3.0-AcreLST		153	1,263	8.0	5.3

3.3 Grading - 2014 Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Fugitive Dust				3.2	1.3
Off-Road		32	38	1.3	1.3
Total		32	38	4.5	2.7
3.0-AcreLST		153	1,263	8.0	5.3

3.3 Grading - 2015 Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Fugitive Dust				3.2	1.3
Off-Road		32	38	1.3	1.3
Total		32	38	4.5	2.7
3.0-AcreLST		153	1,263	8.0	5.3

3.4 Building Construction - 2015 Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Off-Road		18	18	1.0	1.0
Total		18	18	1.0	1.0
1.31-AcreLST		103	789	4.6	3.3

3.4 Building Construction - 2016
Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Off-Road		18	18	0.9	0.9
Total		18	18	0.9	0.9
1.31-AcreLST		103	789	4.6	3.3

3.5 Architectural Coating - 2016
Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Archit. Coating				0.0	0.0
Off-Road		1	2	0.1	0.1
Total		1	2	0.1	0.1
1.31-AcreLST		103	789	4.6	3.3

3.6 Paving - 2016
Mitigated Construction On-Site

Category	lb/day	NOx	CO	PM10 Total	PM2.5 Total
Off-Road		11	17	0.6	0.6
Paving				0.0	0.0
Total		11	17	0.6	0.6
1.31-AcreLST		103	789	4.6	3.3
Overlap Paving + Coating + Building		30	37	1.6	1.6
1.31-AcreLST		103	789	4.6	3.3

Operational Criteria Air Pollutant Worksheet

Winter

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day						
Area		7	0	0	0	0	0
Energy		0	0	0	0	0	0
Mobile		4	4	27	0	5	1
Total		10	4	28	0	5	1

Summer

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day						
Area		7	0	0	0	0	0
Energy		0	0	0	0	0	0
Mobile		3	3	27	0	5	1
Total		9	4	27	0	5	1

Maximum

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day						
Area		7	0.0001	0.009	0	0.00003	0.00003
Energy		0.02	0.187	0.157	0.001	0.014	0.014
Mobile		4	4	27	0.1	5	1
Total		10	4	28	0.1	5	1

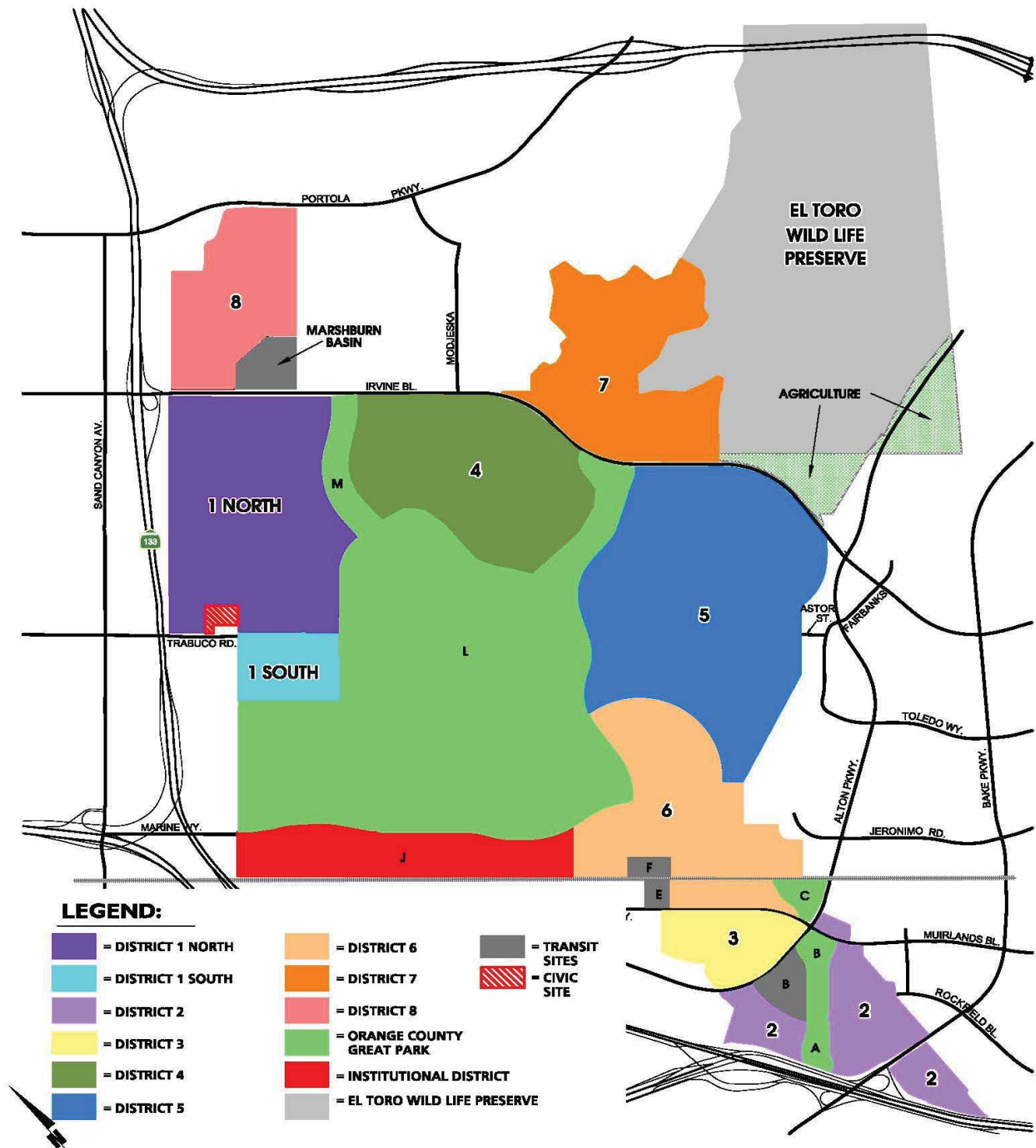
2012 SEIR

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Total		779	529	3,187	11	105	76
Compare		-769	-525	-3,159	-11	-100	-75

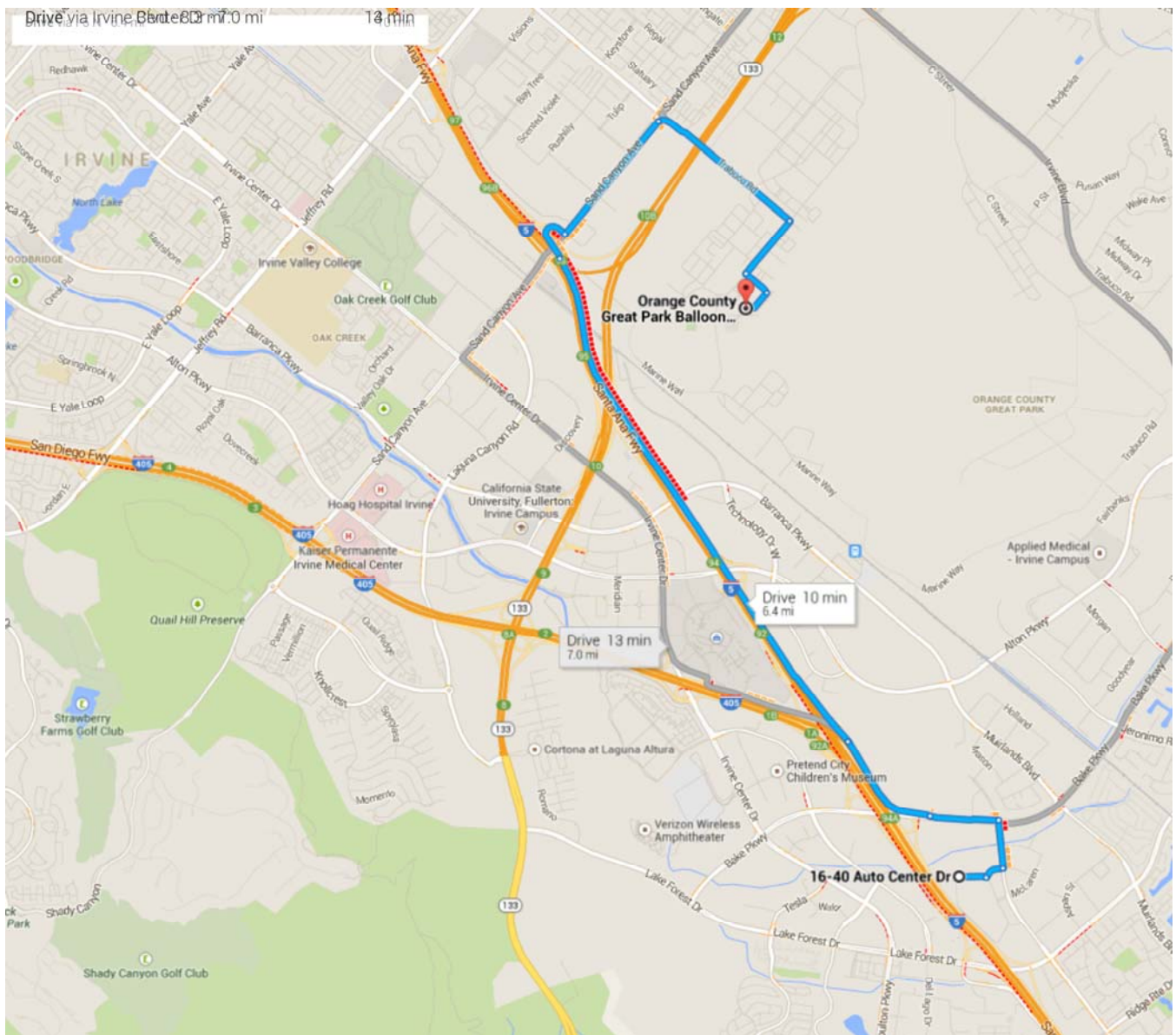
GHG Worksheet

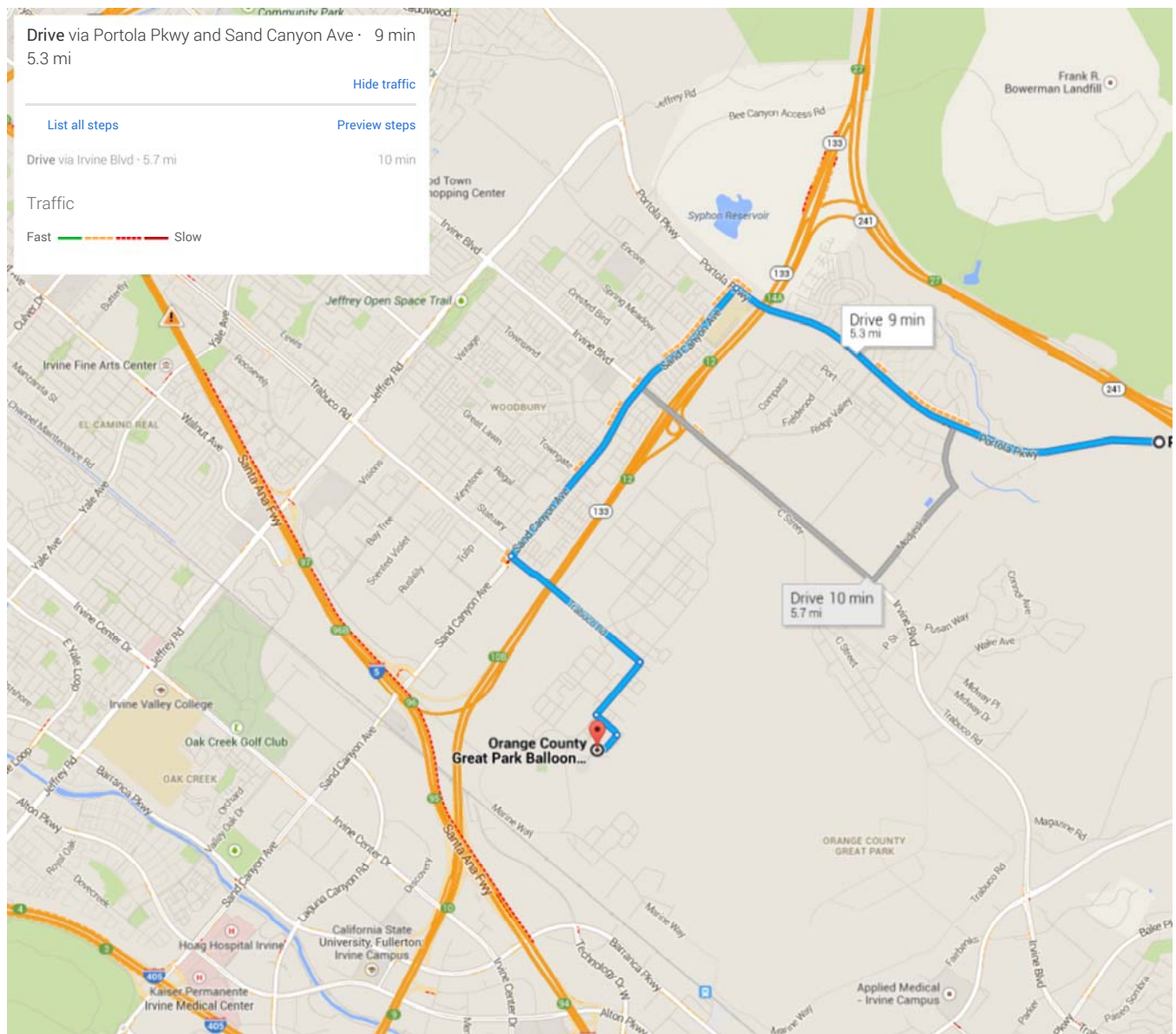
	Approved Project	Proposed Project	Compare
	MTCO2e	MTCO2e	MTCO2e
Area	6,294	0	-6,294
Energy	41,346	212	-41,134
Water	3,027	23	-3,004
Waste	4,005	46	-3,959
Mobile	107,735	568	-107,167
Construction Amortized	3,214	42	-3,172
Vegetation Amortized	-952	0	952
Total	164,669	890	-163,779
Service Population	36,829	1,070	
	4.47	0.83	

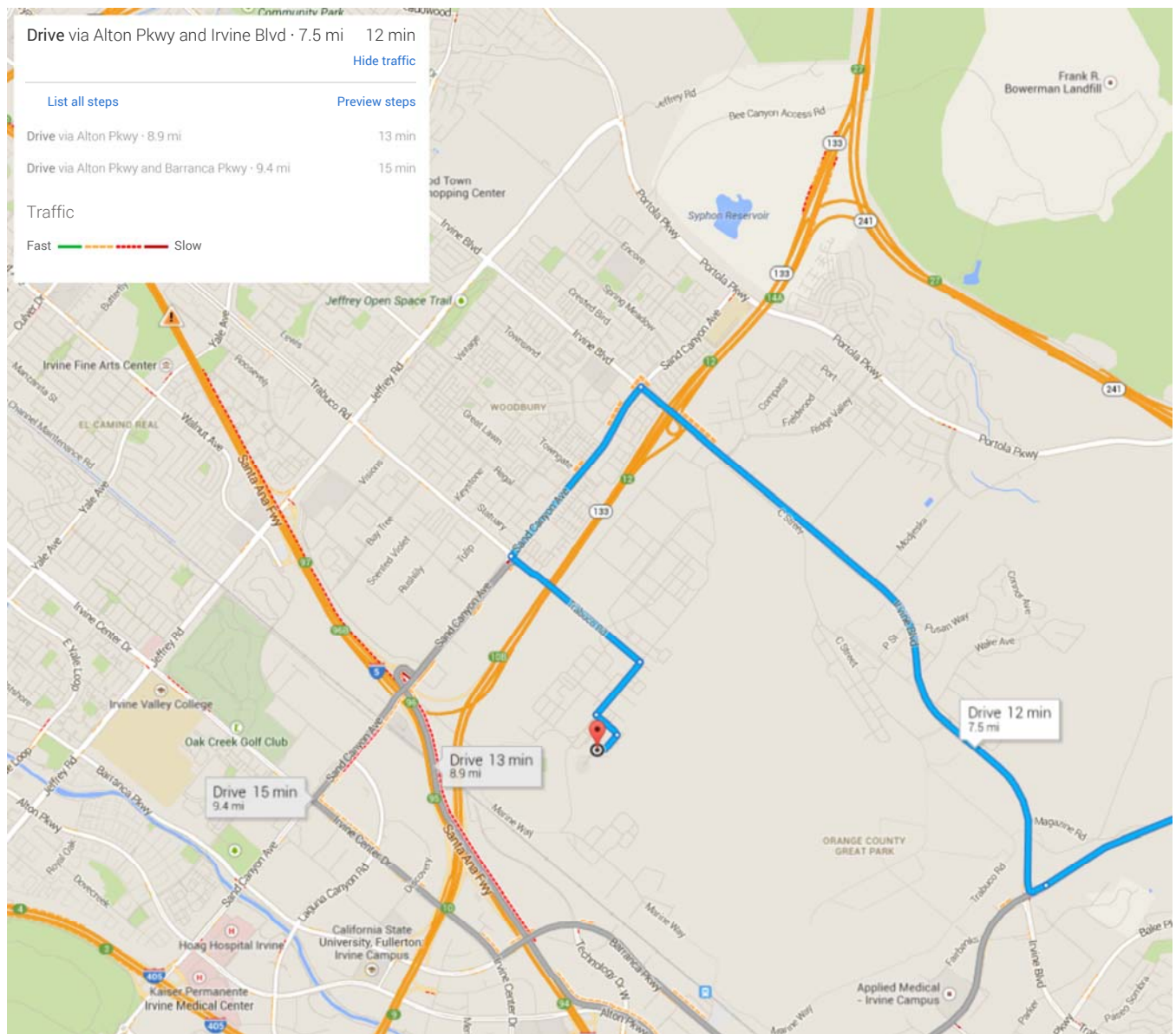
Figure 1 - Heritage Fields Project Area Districts



Source: Heritage Fields Project 2012 - GPA/ZC Traffic Study Exhibit 2-2







Construction Localized Significance Thresholds - Building+Pave+Coat

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
19	1.31	25	82

Source Receptor Distance (meters)	Saddleback Valley	Equipment	Acres/8-hr Day	Equipment Used	Hours of Operation	Acres
	25	Tractors	0.5	3	7	1.3125
NOx	103	Graders	0.5		8	0
CO	789	Dozers	0.5		8	0
PM10	4.6	Scrapers	1		8	0
PM2.5	3.3				Acres	1.31

	Acres	25	50	100	200	500
NOx	1	91	93	108	140	218
	2	131	127	139	165	233
		104	104	118	148	223
CO	1	696	833	1234	2376	7724
	2	993	1227	1696	2965	8454
		789	956	1378	2560	7952
PM10	1	4	11	24	48	121
	2	6	18	30	55	129
		5	13	26	50	124
PM2.5	1	3	4	8	19	68
	2	4	6	10	22	74
		3	5	9	20	70
Saddleback Valley						
1.31 Acres						
	25	50	100	200	500	
NOx	104	104	118	148	223	
CO	789	956	1378	2560	7952	
PM10	5	13	26	50	124	
PM2.5	3	5	9	20	70	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
19	1	19	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Grading

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
19	3.00	25	82

Source Receptor Distance (meters)	Saddleback Valley	Equipment	Acres/8-hr Day	Equipment Used	Hours of Operation	Acres
NOx	153	Tractors	0.5	2	8	1
CO	1263	Graders	0.5	1	8	0.5
PM10	8.0	Dozers	0.5	1	8	0.5
PM2.5	5.3	Scrapers	1	2	8	1
					Acres	3.00

	Acres	25	50	100	200	500
NOx	3	153	148	160	184	248
	3	153	148	160	184	248
		153	148	160	184	248
CO	3	1263	1519	2052	3439	9138
	3	1263	1519	2052	3439	9138
		1263	1519	2052	3439	9138
PM10	3	8	24	36	61	135
	3	8	24	36	61	135
		8	24	36	61	135
PM2.5	3	5	8	12	25	79
	3	5	8	12	25	79
		5	8	12	25	79
Saddleback Valley						
3.00 Acres						
NOx	25	50	100	200	500	
CO	153	148	160	184	248	
PM10	1263	1519	2052	3439	9138	
PM2.5	8	24	36	61	135	
	5	8	12	25	79	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
19	3	19	3
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Site Preparation

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
19	3.00	25	82

Source Receptor Distance (meters)	Saddleback Valley	Equipment	Acres/8-hr Day	Equipment Used	Hours of Operation	Acres
	25	Tractors	0.5	3	8	1.5
NOx	153	Graders	0.5	0	8	0
CO	1263	Dozers	0.5	3	8	1.5
PM10	8.0	Scrapers	1	0	8	0
PM2.5	5.3				Acres	3.00

	Acres	25	50	100	200	500
NOx	3	153	148	160	184	248
	3	153	148	160	184	248
		153	148	160	184	248
CO	3	1263	1519	2052	3439	9138
	3	1263	1519	2052	3439	9138
		1263	1519	2052	3439	9138
PM10	3	8	24	36	61	135
	3	8	24	36	61	135
		8	24	36	61	135
PM2.5	3	5	8	12	25	79
	3	5	8	12	25	79
		5	8	12	25	79
Saddleback Valley						
3.00 Acres						
NOx	25	50	100	200	500	
	153	148	160	184	248	
CO	1263	1519	2052	3439	9138	
PM10	8	24	36	61	135	
PM2.5	5	8	12	25	79	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
19	3	19	3
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

CalEEMod – Model Run

IrvineK-8
Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	77.18	1000sqft	8.02	77,180.00	0
Other Non-Asphalt Surfaces	1.63	Acre	1.63	71,002.80	0
Parking Lot	3.35	Acre	3.35	145,926.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided by the Architect

Construction Phase - Construction schedule provided by the District

Trips and VMT - Water trucks added to mix

Grading -

Architectural Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Vehicle Trips - IBI Group. Trip length for students (C-W) is based on service area for the Elementary School within the Great Park (~10 minute driving

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Area Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Water And Wastewater - 100% treated wastewater

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 + Mitigation Measures in the 2012 SEIR

Area Mitigation -

Energy Mitigation - 2013 Building and Energy Efficiency Standards are 30 percent more energy efficient than 2008 standards for non-residential

Water Mitigation - IRWD Water Efficient Landscape Ordinance, CALGreen plumbing efficiency. 100% reclaimed water for outdoor irrigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

IrvineK-8
Orange County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	108.00
tblConstructionPhase	NumDays	300.00	305.00
tblConstructionPhase	NumDays	30.00	86.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	10.00	86.00
tblConstructionPhase	PhaseEndDate	10/28/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	5/30/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	9/1/2016	4/15/2016
tblConstructionPhase	PhaseStartDate	6/1/2016	1/1/2016
tblConstructionPhase	PhaseStartDate	3/31/2015	4/1/2015
tblConstructionPhase	PhaseStartDate	11/29/2014	12/1/2014
tblConstructionPhase	PhaseStartDate	6/1/2016	1/14/2016
tblLandUse	LotAcreage	1.77	8.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LHD1	0.04	0.00

IrvineK-8
Orange County, Annual

tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleTrips	CW_TL	16.60	6.40
tblVehicleTrips	WD_TR	15.43	16.71
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

IrvineK-8
Orange County, Annual

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.3130	3.4378	2.5348	2.5700e-003	1.1622	0.1801	1.3423	0.5850	0.1657	0.7507	0.0000	245.5542	245.5542	0.0687	0.0000	246.9975
2015	0.6721	6.0161	4.8015	7.3100e-003	0.5438	0.3374	0.8812	0.2006	0.3146	0.5152	0.0000	653.6093	653.6093	0.1231	0.0000	656.1949
2016	1.0400	2.7067	2.3701	4.0600e-003	0.1106	0.1635	0.2741	0.0297	0.1534	0.1831	0.0000	352.9744	352.9744	0.0598	0.0000	354.2305
Total	2.0251	12.1606	9.7064	0.0139	1.8166	0.6810	2.4976	0.8153	0.6336	1.4490	0.0000	1,252.1378	1,252.1378	0.2517	0.0000	1,257.4229

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.0786	1.4591	1.5368	2.5700e-003	0.4374	0.0571	0.4945	0.2186	0.0571	0.2756	0.0000	245.5539	245.5539	0.0687	0.0000	246.9973
2015	0.2857	3.3289	4.3564	7.3100e-003	0.2961	0.1450	0.4411	0.1001	0.1442	0.2443	0.0000	653.6087	653.6087	0.1231	0.0000	656.1944
2016	0.8585	1.6851	2.4262	4.0600e-003	0.1022	0.0804	0.1826	0.0276	0.0801	0.1077	0.0000	352.9741	352.9741	0.0598	0.0000	354.2302
Total	1.2228	6.4731	8.3194	0.0139	0.8357	0.2825	1.1182	0.3463	0.2814	0.6277	0.0000	1,252.1368	1,252.1368	0.2517	0.0000	1,257.4218

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	39.62	46.77	14.29	0.00	54.00	58.52	55.23	57.52	55.59	56.68	0.00	0.00	0.00	0.00	0.00	0.00

IrvineK-8
Orange County, Annual

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003
Energy	5.1600e-003	0.0470	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	240.4769	240.4769	9.6800e-003	2.7400e-003	241.5290
Mobile	0.4255	0.4788	3.5658	7.4500e-003	0.6193	5.9900e-003	0.6253	0.1659	5.5100e-003	0.1714	0.0000	567.0958	567.0958	0.0259	0.0000	567.6391
Waste						0.0000	0.0000		0.0000	0.0000	20.3661	0.0000	20.3661	1.2036	0.0000	45.6417
Water						0.0000	0.0000		0.0000	0.0000	0.7918	26.6355	27.4273	3.9500e-003	1.9800e-003	28.1225
Total	1.6437	0.5258	3.6064	7.7300e-003	0.6193	9.5600e-003	0.6289	0.1659	9.0800e-003	0.1750	21.1579	834.2102	855.3681	1.2431	4.7200e-003	882.9345

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003
Energy	3.7400e-003	0.0340	0.0286	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	211.1101	211.1101	8.7100e-003	2.3300e-003	212.0168
Mobile	0.4255	0.4788	3.5658	7.4500e-003	0.6193	5.9900e-003	0.6253	0.1659	5.5100e-003	0.1714	0.0000	567.0958	567.0958	0.0259	0.0000	567.6391
Waste						0.0000	0.0000		0.0000	0.0000	20.3661	0.0000	20.3661	1.2036	0.0000	45.6417
Water						0.0000	0.0000		0.0000	0.0000	0.6334	21.7129	22.3464	3.1700e-003	1.5800e-003	22.9032
Total	1.6423	0.5129	3.5955	7.6500e-003	0.6193	8.5800e-003	0.6279	0.1659	8.1000e-003	0.1740	20.9995	799.9208	820.9204	1.2414	3.9100e-003	848.2028

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.09	2.46	0.30	1.03	0.00	10.25	0.16	0.00	10.79	0.56	0.75	4.11	4.03	0.14	17.16	3.93

IrvineK-8
Orange County, Annual

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2014	11/28/2014	5	86	
2	Grading	Grading	12/1/2014	3/30/2015	5	86	
3	Building Construction	Building Construction	4/1/2015	5/31/2016	5	305	
4	Architectural Coating	Architectural Coating	1/1/2016	5/31/2016	5	108	
5	Paving	Paving	1/14/2016	4/15/2016	5	67	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 215****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 228,841; Non-Residential Outdoor: 76,280 (Architectural Coating)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

IrvineK-8
Orange County, Annual

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7769	0.0000	0.7769	0.4270	0.0000	0.4270	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2275	2.4777	1.8473	1.6800e-003		0.1349	0.1349		0.1241	0.1241	0.0000	162.1169	162.1169	0.0479	0.0000	163.1230
Total	0.2275	2.4777	1.8473	1.6800e-003	0.7769	0.1349	0.9118	0.4270	0.1241	0.5512	0.0000	162.1169	162.1169	0.0479	0.0000	163.1230

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0100e-003	0.0202	0.0232	4.0000e-005	1.0600e-003	3.7000e-004	1.4300e-003	3.0000e-004	3.4000e-004	6.4000e-004	0.0000	3.4549	3.4549	3.0000e-005	0.0000	3.4556
Worker	3.2300e-003	4.8200e-003	0.0500	1.0000e-004	8.5000e-003	7.0000e-005	8.5600e-003	2.2600e-003	6.0000e-005	2.3200e-003	0.0000	8.2290	8.2290	4.4000e-004	0.0000	8.2383
Total	5.2400e-003	0.0250	0.0732	1.4000e-004	9.5600e-003	4.4000e-004	9.9900e-003	2.5600e-003	4.0000e-004	2.9600e-003	0.0000	11.6839	11.6839	4.7000e-004	0.0000	11.6938

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2878	0.0000	0.2878	0.1582	0.0000	0.1582	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0529	1.0556	1.0062	1.6800e-003		0.0413	0.0413		0.0413	0.0413	0.0000	162.1167	162.1167	0.0479	0.0000	163.1228
Total	0.0529	1.0556	1.0062	1.6800e-003	0.2878	0.0413	0.3292	0.1582	0.0413	0.1995	0.0000	162.1167	162.1167	0.0479	0.0000	163.1228

IrvineK-8
Orange County, Annual

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0100e-003	0.0202	0.0232	4.0000e-005	9.9000e-004	3.7000e-004	1.3600e-003	2.8000e-004	3.4000e-004	6.3000e-004	0.0000	3.4549	3.4549	3.0000e-005	0.0000	3.4556
Worker	3.2300e-003	4.8200e-003	0.0500	1.0000e-004	7.8300e-003	7.0000e-005	7.9000e-003	2.0900e-003	6.0000e-005	2.1600e-003	0.0000	8.2290	8.2290	4.4000e-004	0.0000	8.2383
Total	5.2400e-003	0.0250	0.0732	1.4000e-004	8.8200e-003	4.4000e-004	9.2600e-003	2.3700e-003	4.0000e-004	2.7900e-003	0.0000	11.6839	11.6839	4.7000e-004	0.0000	11.6938

3.3 Grading - 2014**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3730	0.0000	0.3730	0.1547	0.0000	0.1547	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0788	0.9283	0.5932	7.1000e-004		0.0446	0.0446		0.0410	0.0410	0.0000	68.3841	68.3841	0.0202	0.0000	68.8085
Total	0.0788	0.9283	0.5932	7.1000e-004	0.3730	0.0446	0.4176	0.1547	0.0410	0.1957	0.0000	68.3841	68.3841	0.0202	0.0000	68.8085

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	5.4000e-003	6.2100e-003	1.0000e-005	2.8000e-004	1.0000e-004	3.8000e-004	8.0000e-005	9.0000e-005	1.7000e-004	0.0000	0.9240	0.9240	1.0000e-005	0.0000	0.9242
Worker	9.6000e-004	1.4300e-003	0.0149	3.0000e-005	2.5200e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.4453	2.4453	1.3000e-004	0.0000	2.4481
Total	1.5000e-003	6.8300e-003	0.0211	4.0000e-005	2.8000e-003	1.2000e-004	2.9200e-003	7.5000e-004	1.1000e-004	8.6000e-004	0.0000	3.3693	3.3693	1.4000e-004	0.0000	3.3722

IrvineK-8
Orange County, Annual

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1382	0.0000	0.1382	0.0573	0.0000	0.0573	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.3717	0.4364	7.1000e-004		0.0152	0.0152		0.0152	0.0152	0.0000	68.3840	68.3840	0.0202	0.0000	68.8084
Total	0.0190	0.3717	0.4364	7.1000e-004	0.1382	0.0152	0.1534	0.0573	0.0152	0.0725	0.0000	68.3840	68.3840	0.0202	0.0000	68.8084

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	5.4000e-003	6.2100e-003	1.0000e-005	2.6000e-004	1.0000e-004	3.6000e-004	8.0000e-005	9.0000e-005	1.7000e-004	0.0000	0.9240	0.9240	1.0000e-005	0.0000	0.9242
Worker	9.6000e-004	1.4300e-003	0.0149	3.0000e-005	2.3300e-003	2.0000e-005	2.3500e-003	6.2000e-004	2.0000e-005	6.4000e-004	0.0000	2.4453	2.4453	1.3000e-004	0.0000	2.4481
Total	1.5000e-003	6.8300e-003	0.0211	4.0000e-005	2.5900e-003	1.2000e-004	2.7100e-003	7.0000e-004	1.1000e-004	8.1000e-004	0.0000	3.3693	3.3693	1.4000e-004	0.0000	3.3722

3.3 Grading - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3730	0.0000	0.3730	0.1547	0.0000	0.1547	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2134	2.4900	1.6015	1.9500e-003		0.1198	0.1198		0.1102	0.1102	0.0000	185.3530	185.3530	0.0553	0.0000	186.5150
Total	0.2134	2.4900	1.6015	1.9500e-003	0.3730	0.1198	0.4927	0.1547	0.1102	0.2648	0.0000	185.3530	185.3530	0.0553	0.0000	186.5150

IrvineK-8
Orange County, Annual

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-003	0.0129	0.0158	3.0000e-005	7.8000e-004	2.1000e-004	9.8000e-004	2.2000e-004	1.9000e-004	4.1000e-004	0.0000	2.4974	2.4974	2.0000e-005	0.0000	2.4978
Worker	2.3700e-003	3.5200e-003	0.0366	8.0000e-005	6.9200e-003	5.0000e-005	6.9700e-003	1.8400e-003	5.0000e-005	1.8800e-003	0.0000	6.4606	6.4606	3.3000e-004	0.0000	6.4675
Total	3.6700e-003	0.0164	0.0524	1.1000e-004	7.7000e-003	2.6000e-004	7.9500e-003	2.0600e-003	2.4000e-004	2.2900e-003	0.0000	8.9579	8.9579	3.5000e-004	0.0000	8.9653

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1382	0.0000	0.1382	0.0573	0.0000	0.0573	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0520	1.0182	1.1952	1.9500e-003		0.0417	0.0417		0.0417	0.0417	0.0000	185.3527	185.3527	0.0553	0.0000	186.5148
Total	0.0520	1.0182	1.1952	1.9500e-003	0.1382	0.0417	0.1799	0.0573	0.0417	0.0990	0.0000	185.3527	185.3527	0.0553	0.0000	186.5148

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-003	0.0129	0.0158	3.0000e-005	7.2000e-004	2.1000e-004	9.3000e-004	2.1000e-004	1.9000e-004	4.0000e-004	0.0000	2.4974	2.4974	2.0000e-005	0.0000	2.4978
Worker	2.3700e-003	3.5200e-003	0.0366	8.0000e-005	6.3800e-003	5.0000e-005	6.4300e-003	1.7000e-003	5.0000e-005	1.7500e-003	0.0000	6.4606	6.4606	3.3000e-004	0.0000	6.4675
Total	3.6700e-003	0.0164	0.0524	1.1000e-004	7.1000e-003	2.6000e-004	7.3600e-003	1.9100e-003	2.4000e-004	2.1500e-003	0.0000	8.9579	8.9579	3.5000e-004	0.0000	8.9653

IrvineK-8
Orange County, Annual

3.4 Building Construction - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3604	2.9580	1.8463	2.6400e-003		0.2085	0.2085		0.1961	0.1961	0.0000	240.3344	240.3344	0.0603	0.0000	241.6007
Total	0.3604	2.9580	1.8463	2.6400e-003		0.2085	0.2085		0.1961	0.1961	0.0000	240.3344	240.3344	0.0603	0.0000	241.6007

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0486	0.4834	0.5910	1.0200e-003	0.0291	7.8400e-003	0.0369	8.3000e-003	7.2100e-003	0.0155	0.0000	93.7114	93.7114	7.4000e-004	0.0000	93.7269
Worker	0.0460	0.0683	0.7103	1.5900e-003	0.1341	9.9000e-004	0.1351	0.0356	9.1000e-004	0.0365	0.0000	125.2526	125.2526	6.4000e-003	0.0000	125.3870
Total	0.0946	0.5517	1.3014	2.6100e-003	0.1632	8.8300e-003	0.1720	0.0439	8.1200e-003	0.0520	0.0000	218.9639	218.9639	7.1400e-003	0.0000	219.1139

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1354	1.7425	1.8074	2.6400e-003		0.0942	0.0942		0.0942	0.0942	0.0000	240.3341	240.3341	0.0603	0.0000	241.6004
Total	0.1354	1.7425	1.8074	2.6400e-003		0.0942	0.0942		0.0942	0.0942	0.0000	240.3341	240.3341	0.0603	0.0000	241.6004

IrvineK-8
Orange County, Annual

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0486	0.4834	0.5910	1.0200e-003	0.0272	7.8400e-003	0.0350	7.8400e-003	7.2100e-003	0.0150	0.0000	93.7114	93.7114	7.4000e-004	0.0000	93.7269
Worker	0.0460	0.0683	0.7103	1.5900e-003	0.1236	9.9000e-004	0.1246	0.0330	9.1000e-004	0.0340	0.0000	125.2526	125.2526	6.4000e-003	0.0000	125.3870
Total	0.0946	0.5517	1.3014	2.6100e-003	0.1508	8.8300e-003	0.1596	0.0409	8.1200e-003	0.0490	0.0000	218.9639	218.9639	7.1400e-003	0.0000	219.1139

3.4 Building Construction - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1839	1.5393	0.9994	1.4500e-003		0.1062	0.1062		0.0998	0.0998	0.0000	130.7629	130.7629	0.0324	0.0000	131.4440
Total	0.1839	1.5393	0.9994	1.4500e-003		0.1062	0.1062		0.0998	0.0998	0.0000	130.7629	130.7629	0.0324	0.0000	131.4440

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.2340	0.3056	5.6000e-004	0.0160	3.5700e-003	0.0195	4.5500e-003	3.2800e-003	7.8300e-003	0.0000	50.8121	50.8121	3.7000e-004	0.0000	50.8198
Worker	0.0229	0.0339	0.3534	8.7000e-004	0.0735	5.2000e-004	0.0740	0.0195	4.8000e-004	0.0200	0.0000	66.2579	66.2579	3.2400e-003	0.0000	66.3259
Total	0.0471	0.2679	0.6590	1.4300e-003	0.0895	4.0900e-003	0.0936	0.0241	3.7600e-003	0.0278	0.0000	117.0700	117.0700	3.6100e-003	0.0000	117.1457

IrvineK-8
Orange County, Annual

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0708	0.9518	0.9876	1.4500e-003		0.0508	0.0508		0.0508	0.0508	0.0000	130.7628	130.7628	0.0324	0.0000	131.4438
Total	0.0708	0.9518	0.9876	1.4500e-003		0.0508	0.0508		0.0508	0.0508	0.0000	130.7628	130.7628	0.0324	0.0000	131.4438

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.2340	0.3056	5.6000e-004	0.0149	3.5700e-003	0.0185	4.3000e-003	3.2800e-003	7.5800e-003	0.0000	50.8121	50.8121	3.7000e-004	0.0000	50.8198
Worker	0.0229	0.0339	0.3534	8.7000e-004	0.0678	5.2000e-004	0.0683	0.0181	4.8000e-004	0.0186	0.0000	66.2579	66.2579	3.2400e-003	0.0000	66.3259
Total	0.0471	0.2679	0.6590	1.4300e-003	0.0827	4.0900e-003	0.0868	0.0224	3.7600e-003	0.0262	0.0000	117.0700	117.0700	3.6100e-003	0.0000	117.1457

3.5 Architectural Coating - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7071					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1281	0.1017	1.6000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	13.7876	13.7876	1.6300e-003	0.0000	13.8217
Total	0.7270	0.1281	0.1017	1.6000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	13.7876	13.7876	1.6300e-003	0.0000	13.8217

IrvineK-8
Orange County, Annual

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6100e-003	6.8300e-003	0.0713	1.8000e-004	0.0148	1.1000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	13.3584	13.3584	6.5000e-004	0.0000	13.3722
Total	4.6100e-003	6.8300e-003	0.0713	1.8000e-004	0.0148	1.1000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	13.3584	13.3584	6.5000e-004	0.0000	13.3722

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7071					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2100e-003	0.0733	0.0990	1.6000e-004		5.1300e-003	5.1300e-003		5.1300e-003	5.1300e-003	0.0000	13.7876	13.7876	1.6300e-003	0.0000	13.8217
Total	0.7103	0.0733	0.0990	1.6000e-004		5.1300e-003	5.1300e-003		5.1300e-003	5.1300e-003	0.0000	13.7876	13.7876	1.6300e-003	0.0000	13.8217

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6100e-003	6.8300e-003	0.0713	1.8000e-004	0.0137	1.1000e-004	0.0138	3.6500e-003	1.0000e-004	3.7500e-003	0.0000	13.3584	13.3584	6.5000e-004	0.0000	13.3722
Total	4.6100e-003	6.8300e-003	0.0713	1.8000e-004	0.0137	1.1000e-004	0.0138	3.6500e-003	1.0000e-004	3.7500e-003	0.0000	13.3584	13.3584	6.5000e-004	0.0000	13.3722

IrvineK-8
Orange County, Annual

3.6 Paving - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0700	0.7499	0.4964	7.5000e-004		0.0422	0.0422		0.0389	0.0389	0.0000	70.3963	70.3963	0.0212	0.0000	70.8422
Paving	4.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0744	0.7499	0.4964	7.5000e-004		0.0422	0.0422		0.0389	0.0389	0.0000	70.3963	70.3963	0.0212	0.0000	70.8422

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2500e-003	0.0121	0.0158	3.0000e-005	8.2000e-004	1.8000e-004	1.0100e-003	2.4000e-004	1.7000e-004	4.1000e-004	0.0000	2.6269	2.6269	2.0000e-005	0.0000	2.6273
Worker	1.7200e-003	2.5400e-003	0.0265	7.0000e-005	5.5200e-003	4.0000e-005	5.5600e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	4.9723	4.9723	2.4000e-004	0.0000	4.9774
Total	2.9700e-003	0.0146	0.0423	1.0000e-004	6.3400e-003	2.2000e-004	6.5700e-003	1.7000e-003	2.1000e-004	1.9100e-003	0.0000	7.5992	7.5992	2.6000e-004	0.0000	7.6047

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.3707	0.5671	7.5000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	70.3962	70.3962	0.0212	0.0000	70.8421
Paving	4.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0228	0.3707	0.5671	7.5000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	70.3962	70.3962	0.0212	0.0000	70.8421

IrvineK-8
Orange County, Annual

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2500e-003	0.0121	0.0158	3.0000e-005	7.7000e-004	1.8000e-004	9.6000e-004	2.2000e-004	1.7000e-004	3.9000e-004	0.0000	2.6269	2.6269	2.0000e-005	0.0000	2.6273
Worker	1.7200e-003	2.5400e-003	0.0265	7.0000e-005	5.0900e-003	4.0000e-005	5.1300e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	4.9723	4.9723	2.4000e-004	0.0000	4.9774
Total	2.9700e-003	0.0146	0.0423	1.0000e-004	5.8600e-003	2.2000e-004	6.0900e-003	1.5800e-003	2.1000e-004	1.7900e-003	0.0000	7.5992	7.5992	2.6000e-004	0.0000	7.6047

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4255	0.4788	3.5658	7.4500e-003	0.6193	5.9900e-003	0.6253	0.1659	5.5100e-003	0.1714	0.0000	567.0958	567.0958	0.0259	0.0000	567.6391
Unmitigated	0.4255	0.4788	3.5658	7.4500e-003	0.6193	5.9900e-003	0.6253	0.1659	5.5100e-003	0.1714	0.0000	567.0958	567.0958	0.0259	0.0000	567.6391

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,289.68	0.00	0.00	1,635,274	1,635,274
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,289.68	0.00	0.00	1,635,274	1,635,274

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	6.40	8.40	6.90	65.00	30.00	5.00	63	25	12
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.648334	0.072601	0.243086	0.020000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005980	0.010000	0.000000

IrvineK-8
Orange County, Annual

5.0 Energy Detail**4.4 Fleet Mix**

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated:						0.0000	0.0000		0.0000	0.0000	0.0000	174.0590	174.0590	8.0000e-003	1.6600e-003	174.7402
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	189.3648	189.3648	8.7000e-003	1.8000e-003	190.1059
NaturalGas Mitigated	3.7400e-003	0.0340	0.0286	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.0511	37.0511	7.1000e-004	6.8000e-004	37.2766
NaturalGas Unmitigated	5.1600e-003	0.0470	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	51.1121	51.1121	9.8000e-004	9.4000e-004	51.4231

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	957804	5.1600e-003	0.0470	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	51.1121	51.1121	9.8000e-004	9.4000e-004	51.4231
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.1600e-003	0.0470	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	51.1121	51.1121	9.8000e-004	9.4000e-004	51.4231

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	694311	3.7400e-003	0.0340	0.0286	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.0511	37.0511	7.1000e-004	6.8000e-004	37.2766
Total		3.7400e-003	0.0340	0.0286	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.0511	37.0511	7.1000e-004	6.8000e-004	37.2766

IrvineK-8
Orange County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	533314	152.6168	7.0200e-003	1.4500e-003	153.2140
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	128415	36.7481	1.6900e-003	3.5000e-004	36.8919
Total		189.3648	8.7100e-003	1.8000e-003	190.1059

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	479828	137.3109	6.3100e-003	1.3100e-003	137.8483
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	128415	36.7481	1.6900e-003	3.5000e-004	36.8919
Total		174.0590	8.0000e-003	1.6600e-003	174.7402

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003
Unmitigated	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003

IrvineK-8
Orange County, Annual

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003
Total	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003
Total	1.2131	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0400e-003	2.0400e-003	1.0000e-005	0.0000	2.1600e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.3464	3.1700e-003	1.5800e-003	22.9032
Unmitigated	27.4273	3.9500e-003	1.9800e-003	28.1225

IrvineK-8
Orange County, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Land Use	Mgal	MT/yr			
Elementary School	2.23798 / 5.75481	27.4273	3.9500e-003	1.9800e-003	28.1225
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		27.4273	3.9500e-003	1.9800e-003	28.1225

Mitigated

	Indoor/Outdoor Use	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Land Use	Mgal	MT/yr			
Elementary School	1.79039 / 4.73109	22.3464	3.1700e-003	1.5800e-003	22.9032
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		22.3464	3.1700e-003	1.5800e-003	22.9032

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
	MT/yr			
Mitigated	20.3661	1.2036	0.0000	45.6417
Unmitigated	20.3661	1.2036	0.0000	45.6417

IrvineK-8
Orange County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	100.33	20.3661	1.2036	0.0000	45.6417
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		20.3661	1.2036	0.0000	45.6417

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	100.33	20.3661	1.2036	0.0000	45.6417
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		20.3661	1.2036	0.0000	45.6417

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Vegetation

IrvineK-8
Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	77.18	1000sqft	8.02	77,180.00	0
Other Non-Asphalt Surfaces	1.63	Acre	1.63	71,002.80	0
Parking Lot	3.35	Acre	3.35	145,926.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8	Operational Year	2016		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided by the Architect

Construction Phase - Construction schedule provided by the District

Trips and VMT - Water trucks added to mix

Grading -

Architectural Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Vehicle Trips - IBI Group. Trip length for students (C-W) is based on service area for the Elementary School within the Great Park (~10 minute driving

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Area Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Water And Wastewater - 100% treated wastewater

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 + Mitigation Measures in the 2012 SEIR

Area Mitigation -

Energy Mitigation - 2013 Building and Energy Efficiency Standards are 30 percent more energy efficient than 2008 standards for non-residential

Water Mitigation - IRWD Water Efficient Landscape Ordinance, CALGreen plumbing efficiency. 100% reclaimed water for outdoor irrigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

IrvineK-8
Orange County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	108.00
tblConstructionPhase	NumDays	300.00	305.00
tblConstructionPhase	NumDays	30.00	86.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	10.00	86.00
tblConstructionPhase	PhaseEndDate	10/28/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	5/30/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	9/1/2016	4/15/2016
tblConstructionPhase	PhaseStartDate	6/1/2016	1/1/2016
tblConstructionPhase	PhaseStartDate	3/31/2015	4/1/2015
tblConstructionPhase	PhaseStartDate	11/29/2014	12/1/2014
tblConstructionPhase	PhaseStartDate	6/1/2016	1/14/2016
tblLandUse	LotAcreage	1.77	8.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24

IrvineK-8
Orange County, Summer

tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleTrips	CW_TL	16.60	6.40
tblVehicleTrips	WD_TR	15.43	16.71
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

IrvineK-8
Orange County, Summer

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	6.9763	81.2808	53.3952	0.0654	18.2924	3.8895	21.4403	9.9912	3.5783	12.8872	0.0000	6,887.5183	6,887.5183	1.9505	0.0000	6,928.4778
2015	6.8899	79.5374	52.4830	0.0653	8.9219	3.8104	12.7323	3.6629	3.5056	7.1685	0.0000	6,809.1111	6,809.1111	1.9487	0.0000	6,850.0327
2016	20.1138	58.4977	49.5264	0.0856	2.1581	3.5091	5.6672	0.5787	3.2825	3.8612	0.0000	8,255.5238	8,255.5238	1.4894	0.0000	8,286.8017
Total	33.9800	219.3158	155.4047	0.2163	29.3724	11.2090	39.8397	14.2328	10.3664	23.9168	0.0000	21,952.1533	21,952.1533	5.3885	0.0000	22,065.3122

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	1.7803	32.8841	39.7553	0.0654	6.9024	1.3337	7.8736	3.7355	1.3329	4.7059	0.0000	6,887.5183	6,887.5183	1.9505	0.0000	6,928.4778
2015	2.3090	32.8151	39.5863	0.0653	3.4429	1.3316	4.7745	1.3942	1.3309	2.7252	0.0000	6,809.1111	6,809.1111	1.9487	0.0000	6,850.0327
2016	16.1681	35.2803	51.3667	0.0856	1.9933	1.7187	3.7121	0.5383	1.7120	2.2502	0.0000	8,255.5238	8,255.5238	1.4894	0.0000	8,286.8017
Total	20.2575	100.9795	130.7083	0.2163	12.3386	4.3840	16.3601	5.6680	4.3758	9.6813	0.0000	21,952.1532	21,952.1532	5.3885	0.0000	22,065.3122

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	40.38	53.96	15.89	0.00	57.99	60.89	58.94	60.18	57.79	59.52	0.00	0.00	0.00	0.00	0.00	0.00

IrvineK-8
Orange County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Energy	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988
Mobile	3.2936	3.3863	27.0890	0.0596	4.8492	0.0460	4.8953	1.2970	0.0423	1.3394		4,997.8296	4,997.8296	0.2196		5,002.4415
Total	9.9695	3.6436	27.3137	0.0611	4.8492	0.0656	4.9148	1.2970	0.0619	1.3589		5,306.5676	5,306.5676	0.2256	5.6600e-003	5,313.0593

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Energy	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
Mobile	3.2936	3.3863	27.0890	0.0596	4.8492	0.0460	4.8953	1.2970	0.0423	1.3394		4,997.8296	4,997.8296	0.2196		5,002.4415
Total	9.9617	3.5728	27.2543	0.0607	4.8492	0.0602	4.9095	1.2970	0.0565	1.3536		5,221.6385	5,221.6385	0.2240	4.1000e-003	5,227.6134

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.08	1.94	0.22	0.69	0.00	8.20	0.11	0.00	8.69	0.40	0.00	1.60	1.60	0.72	27.56	1.61

IrvineK-8
Orange County, Summer

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2014	11/28/2014	5	86	
2	Grading	Grading	12/1/2014	3/30/2015	5	86	
3	Building Construction	Building Construction	4/1/2015	5/31/2016	5	305	
4	Architectural Coating	Architectural Coating	1/1/2016	5/31/2016	5	108	
5	Paving	Paving	1/14/2016	4/15/2016	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 215

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 228,841; Non-Residential Outdoor: 76,280 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

IrvineK-8
Orange County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment
 Replace Ground Cover
 Water Exposed Area
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2014**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867		4,155.8914	4,155.8914	1.2281		4,181.6817
Total	5.2910	57.6198	42.9609	0.0391	18.0663	3.1377	21.2040	9.9307	2.8867	12.8174		4,155.8914	4,155.8914	1.2281		4,181.6817

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	0.4495	0.4748	8.7000e-004	0.0250	8.5700e-003	0.0336	7.1100e-003	7.8800e-003	0.0150		88.8770	88.8770	7.8000e-004		88.8934
Worker	0.0761	0.0992	1.2036	2.4500e-003	0.2012	1.5600e-003	0.2028	0.0534	1.4300e-003	0.0548		219.4269	219.4269	0.0114		219.6659
Total	0.1198	0.5487	1.6784	3.3200e-003	0.2262	0.0101	0.2363	0.0605	9.3100e-003	0.0698		308.3038	308.3038	0.0122		308.5592

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	1.2300	24.5477	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817
Total	1.2300	24.5477	23.4003	0.0391	6.6936	0.9611	7.6546	3.6793	0.9611	4.6404	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817

IrvineK-8
Orange County, Summer

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	0.4495	0.4748	8.7000e-004	0.0233	8.5700e-003	0.0319	6.7100e-003	7.8800e-003	0.0146		88.8770	88.8770	7.8000e-004		88.8934
Worker	0.0761	0.0992	1.2036	2.4500e-003	0.1855	1.5600e-003	0.1870	0.0495	1.4300e-003	0.0509		219.4269	219.4269	0.0114		219.6659
Total	0.1198	0.5487	1.6784	3.3200e-003	0.2088	0.0101	0.2189	0.0562	9.3100e-003	0.0655		308.3038	308.3038	0.0122		308.5592

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689		6,554.8337	6,554.8337	1.9370		6,595.5113
Total	6.8480	80.7211	51.5831	0.0618	8.6733	3.8792	12.5525	3.5965	3.5689	7.1654		6,554.8337	6,554.8337	1.9370		6,595.5113

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	0.4495	0.4748	8.7000e-004	0.0250	8.5700e-003	0.0336	7.1100e-003	7.8800e-003	0.0150		88.8770	88.8770	7.8000e-004		88.8934
Worker	0.0845	0.1102	1.3373	2.7200e-003	0.2236	1.7300e-003	0.2253	0.0593	1.5900e-003	0.0609		243.8077	243.8077	0.0126		244.0732
Total	0.1283	0.5597	1.8121	3.5900e-003	0.2485	0.0103	0.2589	0.0664	9.4700e-003	0.0759		332.6846	332.6846	0.0134		332.9666

IrvineK-8
Orange County, Summer

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	1.6521	32.3244	37.9432	0.0618		1.3234	1.3234		1.3234	1.3234	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113
Total	1.6521	32.3244	37.9432	0.0618	3.2135	1.3234	4.5369	1.3325	1.3234	2.6559	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	0.4495	0.4748	8.7000e-004	0.0233	8.5700e-003	0.0319	6.7100e-003	7.8800e-003	0.0146		88.8770	88.8770	7.8000e-004		88.8934
Worker	0.0845	0.1102	1.3373	2.7200e-003	0.2061	1.7300e-003	0.2078	0.0550	1.5900e-003	0.0566		243.8077	243.8077	0.0126		244.0732
Total	0.1283	0.5597	1.8121	3.5900e-003	0.2294	0.0103	0.2397	0.0617	9.4700e-003	0.0712		332.6846	332.6846	0.0134		332.9666

3.3 Grading - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	6.7751	79.0467	50.8400	0.0618	8.6733	3.8022	12.4755	3.5965	3.4980	7.0945		6,486.2433	6,486.2433	1.9364		6,526.9080

IrvineK-8
Orange County, Summer

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0385	0.3916	0.4359	8.7000e-004	0.0250	6.6000e-003	0.0316	7.1200e-003	6.0600e-003	0.0132		87.7027	87.7027	6.8000e-004		87.7169
Worker	0.0763	0.0991	1.2072	2.7100e-003	0.2236	1.6200e-003	0.2252	0.0593	1.4900e-003	0.0608		235.1651	235.1651	0.0116		235.4078
Total	0.1148	0.4907	1.6431	3.5800e-003	0.2485	8.2200e-003	0.2568	0.0664	7.5500e-003	0.0740		322.8678	322.8678	0.0122		323.1247

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	1.6521	32.3244	37.9432	0.0618		1.3234	1.3234		1.3234	1.3234	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	1.6521	32.3244	37.9432	0.0618	3.2135	1.3234	4.5369	1.3325	1.3234	2.6559	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0385	0.3916	0.4359	8.7000e-004	0.0234	6.6000e-003	0.0299	6.7100e-003	6.0600e-003	0.0128		87.7027	87.7027	6.8000e-004		87.7169
Worker	0.0763	0.0991	1.2072	2.7100e-003	0.2061	1.6200e-003	0.2077	0.0550	1.4900e-003	0.0565		235.1651	235.1651	0.0116		235.4078
Total	0.1148	0.4907	1.6431	3.5800e-003	0.2294	8.2200e-003	0.2376	0.0617	7.5500e-003	0.0693		322.8678	322.8678	0.0122		323.1247

IrvineK-8
Orange County, Summer

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4618	4.6994	5.2308	0.0104	0.2999	0.0792	0.3790	0.0854	0.0728	0.1582		1,052.4320	1,052.4320	8.1600e-003		1,052.6033
Worker	0.4730	0.6144	7.4845	0.0168	1.3860	0.0101	1.3961	0.3676	9.2500e-003	0.3768		1,458.0238	1,458.0238	0.0716		1,459.5282
Total	0.9348	5.3138	12.7153	0.0272	1.6859	0.0892	1.7751	0.4530	0.0820	0.5350		2,510.4558	2,510.4558	0.0798		2,512.1315

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3742	17.6903	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	1.3742	17.6903	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483

IrvineK-8
Orange County, Summer

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4618	4.6994	5.2308	0.0104	0.2802	0.0792	0.3593	0.0806	0.0728	0.1533		1,052.4320	1,052.4320	8.1600e-003		1,052.6033
Worker	0.4730	0.6144	7.4845	0.0168	1.2776	0.0101	1.2876	0.3410	9.2500e-003	0.3502		1,458.0238	1,458.0238	0.0716		1,459.5282
Total	0.9348	5.3138	12.7153	0.0272	1.5578	0.0892	1.6470	0.4215	0.0820	0.5035		2,510.4558	2,510.4558	0.0798		2,512.1315

3.4 Building Construction - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4197	4.1521	4.9062	0.0104	0.3000	0.0658	0.3658	0.0854	0.0605	0.1459		1,040.9226	1,040.9226	7.3900e-003		1,041.0778
Worker	0.4302	0.5558	6.8073	0.0168	1.3860	9.6800e-003	1.3957	0.3676	8.9200e-003	0.3765		1,406.9059	1,406.9059	0.0662		1,408.2953
Total	0.8498	4.7079	11.7135	0.0272	1.6860	0.0755	1.7615	0.4530	0.0694	0.5224		2,447.8285	2,447.8285	0.0736		2,449.3731

IrvineK-8
Orange County, Summer

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3104	17.6257	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	1.3104	17.6257	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4197	4.1521	4.9062	0.0104	0.2803	0.0658	0.3461	0.0806	0.0605	0.1411		1,040.9226	1,040.9226	7.3900e-003		1,041.0778
Worker	0.4302	0.5558	6.8073	0.0168	1.2776	9.6800e-003	1.2873	0.3410	8.9200e-003	0.3499		1,406.9059	1,406.9059	0.0662		1,408.2953
Total	0.8498	4.7079	11.7135	0.0272	1.5578	0.0755	1.6333	0.4216	0.0694	0.4910		2,447.8285	2,447.8285	0.0736		2,449.3731

3.5 Architectural Coating - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.0948					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	13.4632	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449

IrvineK-8
Orange County, Summer

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0867	0.1121	1.3724	3.3900e-003	0.2794	1.9500e-003	0.2814	0.0741	1.8000e-003	0.0759		283.6504	283.6504	0.0133		283.9305
Total	0.0867	0.1121	1.3724	3.3900e-003	0.2794	1.9500e-003	0.2814	0.0741	1.8000e-003	0.0759		283.6504	283.6504	0.0133		283.9305

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.0948					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	13.1542	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0867	0.1121	1.3724	3.3900e-003	0.2576	1.9500e-003	0.2595	0.0687	1.8000e-003	0.0705		283.6504	283.6504	0.0133		283.9305
Total	0.0867	0.1121	1.3724	3.3900e-003	0.2576	1.9500e-003	0.2595	0.0687	1.8000e-003	0.0705		283.6504	283.6504	0.0133		283.9305

IrvineK-8
Orange County, Summer

3.6 Paving - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.2208	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0350	0.3460	0.4089	8.7000e-004	0.0250	5.4800e-003	0.0305	7.1200e-003	5.0400e-003	0.0122		86.7436	86.7436	6.2000e-004		86.7565
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		170.1902	170.1902	8.0000e-003		170.3583
Total	0.0870	0.4132	1.2323	2.9100e-003	0.1927	6.6500e-003	0.1993	0.0516	6.1200e-003	0.0577		256.9338	256.9338	8.6200e-003		257.1148

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6800	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495

IrvineK-8
Orange County, Summer

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0350	0.3460	0.4089	8.7000e-004	0.0234	5.4800e-003	0.0288	6.7200e-003	5.0400e-003	0.0118		86.7436	86.7436	6.2000e-004		86.7565
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1546	1.1700e-003	0.1557	0.0413	1.0800e-003	0.0423		170.1902	170.1902	8.0000e-003		170.3583
Total	0.0870	0.4132	1.2323	2.9100e-003	0.1779	6.6500e-003	0.1846	0.0480	6.1200e-003	0.0541		256.9338	256.9338	8.6200e-003		257.1148

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2936	3.3863	27.0890	0.0596	4.8492	0.0460	4.8953	1.2970	0.0423	1.3394		4,997,829.6	4,997,829.6	0.2196		5,002,441.5
Unmitigated	3.2936	3.3863	27.0890	0.0596	4.8492	0.0460	4.8953	1.2970	0.0423	1.3394		4,997,829.6	4,997,829.6	0.2196		5,002,441.5

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,289.68	0.00	0.00	1,635,274	1,635,274
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,289.68	0.00	0.00	1,635,274	1,635,274

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	6.40	8.40	6.90	65.00	30.00	5.00	63	25	12
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.648334	0.072601	0.243086	0.020000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005980	0.010000	0.000000

IrvineK-8
Orange County, Summer

5.0 Energy Detail**4.4 Fleet Mix**

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
NaturalGas Unmitigated	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	2624.12	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988
Total		0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.90222	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
Total		0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529

IrvineK-8
Orange County, Summer

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Unmitigated	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Total	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Total	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

IrvineK-8
Orange County, Summer

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water
Install Low Flow Bathroom Faucet
Install Low Flow Kitchen Faucet
Install Low Flow Toilet
Install Low Flow Shower
Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Vegetation

IrvineK-8
Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	77.18	1000sqft	8.02	77,180.00	0
Other Non-Asphalt Surfaces	1.63	Acre	1.63	71,002.80	0
Parking Lot	3.35	Acre	3.35	145,926.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8	Operational Year	2016		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided by the Architect

Construction Phase - Construction schedule provided by the District

Trips and VMT - Water trucks added to mix

Grading -

Architectural Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Vehicle Trips - IBI Group. Trip length for students (C-W) is based on service area for the Elementary School within the Great Park (~10 minute driving

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Vehicle Emission Factors - Assumes no light-heavy duty, medium-heavy duty or heavy-heavy duty trucks or motor homes. Assumes all buses are school

Area Coating - SCAQMD Rule 1113 limits primer to 100 g/L and flat coats to 50 g/L

Water And Wastewater - 100% treated wastewater

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 + Mitigation Measures in the 2012 SEIR

Area Mitigation -

Energy Mitigation - 2013 Building and Energy Efficiency Standards are 30 percent more energy efficient than 2008 standards for non-residential

Water Mitigation - IRWD Water Efficient Landscape Ordinance, CALGreen plumbing efficiency. 100% reclaimed water for outdoor irrigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

IrvineK-8
Orange County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	108.00
tblConstructionPhase	NumDays	300.00	305.00
tblConstructionPhase	NumDays	30.00	86.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	10.00	86.00
tblConstructionPhase	PhaseEndDate	10/28/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	5/30/2016	5/31/2016
tblConstructionPhase	PhaseEndDate	9/1/2016	4/15/2016
tblConstructionPhase	PhaseStartDate	6/1/2016	1/1/2016
tblConstructionPhase	PhaseStartDate	3/31/2015	4/1/2015
tblConstructionPhase	PhaseStartDate	11/29/2014	12/1/2014
tblConstructionPhase	PhaseStartDate	6/1/2016	1/14/2016
tblLandUse	LotAcreage	1.77	8.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	HHD	0.01	0.00
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDA	0.51	0.65
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LDT2	0.19	0.24
tblVehicleEF	LHD1	0.04	0.00

IrvineK-8
Orange County, Winter

tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	LHD2	5.8820e-003	0.00
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MCY	4.7130e-003	5.9800e-003
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MDV	0.15	0.02
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MH	2.2390e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	OBUS	1.4280e-003	0.00
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	SBUS	5.0900e-004	0.01
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleEF	UBUS	2.1410e-003	0.00
tblVehicleTrips	CW_TL	16.60	6.40
tblVehicleTrips	WD_TR	15.43	16.71
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

IrvineK-8
Orange County, Winter

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	6.9857	81.3031	53.4101	0.0652	18.2924	3.8896	21.4404	9.9912	3.5785	12.8873	0.0000	6,873.8856	6,873.8856	1.9505	0.0000	6,914.8455
2015	6.8982	79.5568	52.5003	0.0652	8.9219	3.8105	12.7324	3.6629	3.5056	7.1685	0.0000	6,795.9371	6,795.9371	1.9487	0.0000	6,836.8591
2016	20.1932	58.6770	50.0763	0.0843	2.1581	3.5098	5.6679	0.5787	3.2832	3.8619	0.0000	8,147.5603	8,147.5603	1.4897	0.0000	8,178.8432
Total	34.0772	219.5368	155.9867	0.2147	29.3724	11.2099	39.8407	14.2328	10.3673	23.9177	0.0000	21,817.3830	21,817.3830	5.3888	0.0000	21,930.5479

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	1.7898	32.9064	39.7702	0.0652	6.9024	1.3338	7.8737	3.7355	1.3330	4.7060	0.0000	6,873.8856	6,873.8856	1.9505	0.0000	6,914.8455
2015	2.3850	32.8345	39.6036	0.0652	3.4429	1.3317	4.7746	1.3942	1.3310	2.7252	0.0000	6,795.9371	6,795.9371	1.9487	0.0000	6,836.8591
2016	16.2475	35.4596	51.9165	0.0843	1.9933	1.7195	3.7128	0.5383	1.7127	2.2509	0.0000	8,147.5603	8,147.5603	1.4897	0.0000	8,178.8432
Total	20.4223	101.2004	131.2903	0.2147	12.3386	4.3850	16.3611	5.6680	4.3767	9.6822	0.0000	21,817.3830	21,817.3830	5.3888	0.0000	21,930.5479

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	40.07	53.90	15.83	0.00	57.99	60.88	58.93	60.18	57.78	59.52	0.00	0.00	0.00	0.00	0.00	0.00

IrvineK-8
Orange County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Energy	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988
Mobile	3.5234	3.6148	27.3332	0.0566	4.8492	0.0463	4.8956	1.2970	0.0426	1.3396		4,745.6006	4,745.6006	0.2196		4,750.2129
Total	10.1992	3.8721	27.5579	0.0581	4.8492	0.0659	4.9151	1.2970	0.0622	1.3592		5,054.3386	5,054.3386	0.2256	5.6600e-003	5,060.8307

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Energy	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
Mobile	3.5234	3.6148	27.3332	0.0566	4.8492	0.0463	4.8956	1.2970	0.0426	1.3396		4,745.6006	4,745.6006	0.2196		4,750.2129
Total	10.1915	3.8014	27.4984	0.0577	4.8492	0.0605	4.9098	1.2970	0.0568	1.3538		4,969.4095	4,969.4095	0.2240	4.1000e-003	4,975.3848

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.08	1.83	0.22	0.72	0.00	8.16	0.11	0.00	8.65	0.40	0.00	1.68	1.68	0.72	27.56	1.69

IrvineK-8
Orange County, Winter

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2014	11/28/2014	5	86	
2	Grading	Grading	12/1/2014	3/30/2015	5	86	
3	Building Construction	Building Construction	4/1/2015	5/31/2016	5	305	
4	Architectural Coating	Architectural Coating	1/1/2016	5/31/2016	5	108	
5	Paving	Paving	1/14/2016	4/15/2016	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 215

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 228,841; Non-Residential Outdoor: 76,280 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

IrvineK-8
Orange County, Winter

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867		4,155.8914	4,155.8914	1.2281		4,181.6817
Total	5.2910	57.6198	42.9609	0.0391	18.0663	3.1377	21.2040	9.9307	2.8867	12.8174		4,155.8914	4,155.8914	1.2281		4,181.6817

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	0.4608	0.5606	8.6000e-004	0.0250	8.6900e-003	0.0337	7.1100e-003	7.9900e-003	0.0151		88.1389	88.1389	8.0000e-004		88.1557
Worker	0.0803	0.1091	1.1398	2.3200e-003	0.2012	1.5600e-003	0.2028	0.0534	1.4300e-003	0.0548		207.8217	207.8217	0.0114		208.0607
Total	0.1288	0.5699	1.7003	3.1800e-003	0.2262	0.0103	0.2364	0.0605	9.4200e-003	0.0699		295.9606	295.9606	0.0122		296.2164

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	1.2300	24.5477	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817
Total	1.2300	24.5477	23.4003	0.0391	6.6936	0.9611	7.6546	3.6793	0.9611	4.6404	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817

IrvineK-8
Orange County, Winter

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	0.4608	0.5606	8.6000e-004	0.0233	8.6900e-003	0.0320	6.7100e-003	7.9900e-003	0.0147		88.1389	88.1389	8.0000e-004		88.1557
Worker	0.0803	0.1091	1.1398	2.3200e-003	0.1855	1.5600e-003	0.1870	0.0495	1.4300e-003	0.0509		207.8217	207.8217	0.0114		208.0607
Total	0.1288	0.5699	1.7003	3.1800e-003	0.2088	0.0103	0.2191	0.0562	9.4200e-003	0.0656		295.9606	295.9606	0.0122		296.2164

3.3 Grading - 2014**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689		6,554.8337	6,554.8337	1.9370		6,595.5113
Total	6.8480	80.7211	51.5831	0.0618	8.6733	3.8792	12.5525	3.5965	3.5689	7.1654		6,554.8337	6,554.8337	1.9370		6,595.5113

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	0.4608	0.5606	8.6000e-004	0.0250	8.6900e-003	0.0337	7.1100e-003	7.9900e-003	0.0151		88.1389	88.1389	8.0000e-004		88.1557
Worker	0.0892	0.1212	1.2664	2.5700e-003	0.2236	1.7300e-003	0.2253	0.0593	1.5900e-003	0.0609		230.9130	230.9130	0.0126		231.1785
Total	0.1377	0.5820	1.8270	3.4300e-003	0.2485	0.0104	0.2590	0.0664	9.5800e-003	0.0760		319.0519	319.0519	0.0134		319.3342

IrvineK-8
Orange County, Winter

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	1.6521	32.3244	37.9432	0.0618		1.3234	1.3234		1.3234	1.3234	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113
Total	1.6521	32.3244	37.9432	0.0618	3.2135	1.3234	4.5369	1.3325	1.3234	2.6559	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	0.4608	0.5606	8.6000e-004	0.0233	8.6900e-003	0.0320	6.7100e-003	7.9900e-003	0.0147		88.1389	88.1389	8.0000e-004		88.1557
Worker	0.0892	0.1212	1.2664	2.5700e-003	0.2061	1.7300e-003	0.2078	0.0550	1.5900e-003	0.0566		230.9130	230.9130	0.0126		231.1785
Total	0.1377	0.5820	1.8270	3.4300e-003	0.2294	0.0104	0.2398	0.0617	9.5800e-003	0.0713		319.0519	319.0519	0.0134		319.3342

3.3 Grading - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	6.7751	79.0467	50.8400	0.0618	8.6733	3.8022	12.4755	3.5965	3.4980	7.0945		6,486.2433	6,486.2433	1.9364		6,526.9080

IrvineK-8
Orange County, Winter

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0427	0.4011	0.5201	8.6000e-004	0.0250	6.6800e-003	0.0317	7.1200e-003	6.1400e-003	0.0133		86.9665	86.9665	7.0000e-004		86.9812
Worker	0.0804	0.1090	1.1403	2.5700e-003	0.2236	1.6200e-003	0.2252	0.0593	1.4900e-003	0.0608		222.7273	222.7273	0.0116		222.9699
Total	0.1231	0.5101	1.6604	3.4300e-003	0.2485	8.3000e-003	0.2569	0.0664	7.6300e-003	0.0740		309.6938	309.6938	0.0123		309.9511

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	1.6521	32.3244	37.9432	0.0618		1.3234	1.3234		1.3234	1.3234	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	1.6521	32.3244	37.9432	0.0618	3.2135	1.3234	4.5369	1.3325	1.3234	2.6559	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0427	0.4011	0.5201	8.6000e-004	0.0234	6.6800e-003	0.0300	6.7100e-003	6.1400e-003	0.0129		86.9665	86.9665	7.0000e-004		86.9812
Worker	0.0804	0.1090	1.1403	2.5700e-003	0.2061	1.6200e-003	0.2077	0.0550	1.4900e-003	0.0565		222.7273	222.7273	0.0116		222.9699
Total	0.1231	0.5101	1.6604	3.4300e-003	0.2294	8.3000e-003	0.2377	0.0617	7.6300e-003	0.0693		309.6938	309.6938	0.0123		309.9511

IrvineK-8
Orange County, Winter

3.4 Building Construction - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5122	4.8133	6.2410	0.0103	0.2999	0.0801	0.3800	0.0854	0.0737	0.1591		1,043.5984	1,043.5984	8.3900e-003		1,043.7746
Worker	0.4986	0.6758	7.0698	0.0159	1.3860	0.0101	1.3961	0.3676	9.2500e-003	0.3768		1,380.9091	1,380.9091	0.0716		1,382.4135
Total	1.0108	5.4891	13.3108	0.0263	1.6859	0.0902	1.7761	0.4530	0.0829	0.5359		2,424.5075	2,424.5075	0.0800		2,426.1881

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3742	17.6903	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	1.3742	17.6903	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483

IrvineK-8
Orange County, Winter

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5122	4.8133	6.2410	0.0103	0.2802	0.0801	0.3603	0.0806	0.0737	0.1543		1,043.5984	1,043.5984	8.3900e-003		1,043.7746
Worker	0.4986	0.6758	7.0698	0.0159	1.2776	0.0101	1.2876	0.3410	9.2500e-003	0.3502		1,380.9091	1,380.9091	0.0716		1,382.4135
Total	1.0108	5.4891	13.3108	0.0263	1.5578	0.0902	1.6480	0.4215	0.0829	0.5045		2,424.5075	2,424.5075	0.0800		2,426.1881

3.4 Building Construction - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4653	4.2499	5.8962	0.0103	0.3000	0.0665	0.3665	0.0854	0.0611	0.1466		1,032.1457	1,032.1457	7.6100e-003		1,032.3056
Worker	0.4529	0.6113	6.4121	0.0159	1.3860	9.6800e-003	1.3957	0.3676	8.9200e-003	0.3765		1,332.4641	1,332.4641	0.0662		1,333.8535
Total	0.9181	4.8611	12.3083	0.0262	1.6860	0.0762	1.7622	0.4530	0.0701	0.5231		2,364.6098	2,364.6098	0.0738		2,366.1591

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3104	17.6257	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	1.3104	17.6257	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890

IrvineK-8
Orange County, Winter

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4653	4.2499	5.8962	0.0103	0.2803	0.0665	0.3468	0.0806	0.0611	0.1417		1,032.1457	1,032.1457	7.6100e-003		1,032.3056
Worker	0.4529	0.6113	6.4121	0.0159	1.2776	9.6800e-003	1.2873	0.3410	8.9200e-003	0.3499		1,332.4641	1,332.4641	0.0662		1,333.8535
Total	0.9181	4.8611	12.3083	0.0262	1.5578	0.0762	1.6340	0.4216	0.0701	0.4916		2,364.6098	2,364.6098	0.0738		2,366.1591

3.5 Architectural Coating - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.0948					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	13.4632	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0913	0.1232	1.2928	3.2100e-003	0.2794	1.9500e-003	0.2814	0.0741	1.8000e-003	0.0759		268.6420	268.6420	0.0133		268.9221
Total	0.0913	0.1232	1.2928	3.2100e-003	0.2794	1.9500e-003	0.2814	0.0741	1.8000e-003	0.0759		268.6420	268.6420	0.0133		268.9221

IrvineK-8
Orange County, Winter

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.0948					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	13.1542	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0913	0.1232	1.2928	3.2100e-003	0.2576	1.9500e-003	0.2595	0.0687	1.8000e-003	0.0705		268.6420	268.6420	0.0133		268.9221
Total	0.0913	0.1232	1.2928	3.2100e-003	0.2576	1.9500e-003	0.2595	0.0687	1.8000e-003	0.0705		268.6420	268.6420	0.0133		268.9221

3.6 Paving - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.2208	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495

IrvineK-8
Orange County, Winter

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0388	0.3542	0.4914	8.6000e-004	0.0250	5.5400e-003	0.0305	7.1200e-003	5.0900e-003	0.0122		86.0122	86.0122	6.3000e-004		86.0255
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		161.1852	161.1852	8.0000e-003		161.3532
Total	0.0936	0.4281	1.2670	2.7900e-003	0.1927	6.7100e-003	0.1994	0.0516	6.1700e-003	0.0578		247.1973	247.1973	8.6300e-003		247.3787

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6800	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0388	0.3542	0.4914	8.6000e-004	0.0234	5.5400e-003	0.0289	6.7200e-003	5.0900e-003	0.0118		86.0122	86.0122	6.3000e-004		86.0255
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1546	1.1700e-003	0.1557	0.0413	1.0800e-003	0.0423		161.1852	161.1852	8.0000e-003		161.3532
Total	0.0936	0.4281	1.2670	2.7900e-003	0.1779	6.7100e-003	0.1846	0.0480	6.1700e-003	0.0541		247.1973	247.1973	8.6300e-003		247.3787

IrvineK-8
Orange County, Winter

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.5234	3.6148	27.3332	0.0566	4.8492	0.0463	4.8956	1.2970	0.0426	1.3396		4,745.6006	4,745.6006	0.2196		4,750.2129
Unmitigated	3.5234	3.6148	27.3332	0.0566	4.8492	0.0463	4.8956	1.2970	0.0426	1.3396		4,745.6006	4,745.6006	0.2196		4,750.2129

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,289.68	0.00	0.00	1,635,274	1,635,274
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,289.68	0.00	0.00	1,635,274	1,635,274

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	6.40	8.40	6.90	65.00	30.00	5.00	63	25	12
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.648334	0.072601	0.243086	0.020000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005980	0.010000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
NaturalGas Unmitigated	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988

IrvineK-8
Orange County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	2624.12	0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988
Total		0.0283	0.2573	0.2161	1.5400e-003		0.0196	0.0196		0.0196	0.0196		308.7200	308.7200	5.9200e-003	5.6600e-003	310.5988

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.90222	0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529
Total		0.0205	0.1865	0.1567	1.1200e-003		0.0142	0.0142		0.0142	0.0142		223.7909	223.7909	4.2900e-003	4.1000e-003	225.1529

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Unmitigated	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

IrvineK-8
Orange County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Total	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191
Total	6.6476	8.0000e-005	8.6000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0180	0.0180	5.0000e-005		0.0191

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Reclaimed Water
 Install Low Flow Bathroom Faucet
 Install Low Flow Kitchen Faucet
 Install Low Flow Toilet
 Install Low Flow Shower
 Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Vegetation

IrvineK-8
Orange County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO ₂	Exhaust PM10	Exhaust PM2.5	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Percent Reduction												
Architectural Coating	0.02	0.41	0.02	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.49	0.34	0.01	0.00	0.52	0.49	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.74	0.59	0.25	0.00	0.65	0.62	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.67	0.50	-0.13	0.00	0.52	0.48	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.75	0.57	0.44	0.00	0.69	0.66	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	No Change	0.00
Cranes	Diesel	Tier 3	1	1	No Change	0.00
Excavators	Diesel	Tier 3	2	2	No Change	0.00
Forklifts	Diesel	Tier 3	3	3	No Change	0.00
Generator Sets	Diesel	Tier 3	1	1	No Change	0.00
Graders	Diesel	Tier 3	1	1	No Change	0.00
Pavers	Diesel	Tier 3	2	2	No Change	0.00
Paving Equipment	Diesel	Tier 3	2	2	No Change	0.00
Rollers	Diesel	Tier 3	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	No Change	0.00
Scrapers	Diesel	Tier 3	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 2	9	9	No Change	0.00
Welders	Diesel	No Change	1	1	No Change	0.00

IrvineK-8
Orange County, Mitigation Report

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	1.99000E-002	1.28100E-001	1.01730E-001	1.60000E-004	1.06200E-002	1.06200E-002	0.00000E+000	1.37876E+001	1.37876E+001	1.63000E-003	0.00000E+000	1.38217E+001
Cranes	9.80000E-002	1.16242E+000	4.05380E-001	7.50000E-004	5.29600E-002	4.87200E-002	0.00000E+000	7.14436E+001	7.14436E+001	2.14100E-002	0.00000E+000	7.18931E+001
Excavators	3.59800E-002	4.22780E-001	2.95440E-001	4.60000E-004	2.08400E-002	1.91800E-002	0.00000E+000	4.34615E+001	4.34615E+001	1.29400E-002	0.00000E+000	4.37332E+001
Forklifts	1.08050E-001	9.28790E-001	5.81570E-001	7.00000E-004	7.79000E-002	7.16700E-002	0.00000E+000	6.63164E+001	6.63164E+001	1.98700E-002	0.00000E+000	6.67337E+001
Generator Sets	1.04810E-001	7.76070E-001	5.83210E-001	1.00000E-003	5.57600E-002	5.57600E-002	0.00000E+000	8.61941E+001	8.61941E+001	8.47000E-003	0.00000E+000	8.63721E+001
Graders	4.57000E-002	4.68250E-001	2.14060E-001	2.70000E-004	2.63200E-002	2.42100E-002	0.00000E+000	2.57052E+001	2.57052E+001	7.65000E-003	0.00000E+000	2.58659E+001
Pavers	2.68800E-002	3.02370E-001	1.91090E-001	3.00000E-004	1.50200E-002	1.38200E-002	0.00000E+000	2.85081E+001	2.85081E+001	8.60000E-003	0.00000E+000	2.86887E+001
Paving Equipment	2.05600E-002	2.39000E-001	1.70400E-001	2.70000E-004	1.18600E-002	1.09100E-002	0.00000E+000	2.53266E+001	2.53266E+001	7.64000E-003	0.00000E+000	2.54871E+001
Rollers	2.25700E-002	2.08560E-001	1.34900E-001	1.80000E-004	1.53600E-002	1.41300E-002	0.00000E+000	1.65616E+001	1.65616E+001	5.00000E-003	0.00000E+000	1.66665E+001
Rubber Tired Dozers	2.18870E-001	2.48994E+000	1.90392E+000	1.53000E-003	1.16110E-001	1.06820E-001	0.00000E+000	1.46994E+002	1.46994E+002	4.35200E-002	0.00000E+000	1.47908E+002
Scrapers	1.24570E-001	1.60986E+000	1.00334E+000	1.28000E-003	6.50000E-002	5.98000E-002	0.00000E+000	1.22410E+002	1.22410E+002	3.64400E-002	0.00000E+000	1.23176E+002
Tractors/Loaders/B ackhoes	2.36020E-001	2.25391E+000	1.59438E+000	2.05000E-003	1.76020E-001	1.61940E-001	0.00000E+000	1.95722E+002	1.95722E+002	5.83800E-002	0.00000E+000	1.96948E+002
Welders	9.20300E-002	2.81180E-001	3.06380E-001	3.90000E-004	2.31300E-002	2.31300E-002	0.00000E+000	2.87037E+001	2.87037E+001	7.49000E-003	0.00000E+000	2.88610E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	3.21000E-003	7.32800E-002	9.89500E-002	1.60000E-004	5.13000E-003	5.13000E-003	0.00000E+000	1.37876E+001	1.37876E+001	1.63000E-003	0.00000E+000	1.38217E+001
Cranes	1.85100E-002	3.57850E-001	4.01030E-001	7.50000E-004	1.35700E-002	1.35700E-002	0.00000E+000	7.14435E+001	7.14435E+001	2.14100E-002	0.00000E+000	7.18930E+001
Excavators	1.12000E-002	2.16630E-001	3.45480E-001	4.60000E-004	1.04600E-002	1.04600E-002	0.00000E+000	4.34614E+001	4.34614E+001	1.29400E-002	0.00000E+000	4.37332E+001
Forklifts	1.72400E-002	3.93540E-001	5.31420E-001	7.00000E-004	2.75800E-002	2.75800E-002	0.00000E+000	6.63163E+001	6.63163E+001	1.98700E-002	0.00000E+000	6.67336E+001
Generator Sets	2.00600E-002	4.58090E-001	6.18590E-001	1.00000E-003	3.21000E-002	3.21000E-002	0.00000E+000	8.61940E+001	8.61940E+001	8.47000E-003	0.00000E+000	8.63720E+001
Graders	6.49000E-003	1.25520E-001	2.00180E-001	2.70000E-004	6.06000E-003	6.06000E-003	0.00000E+000	2.57052E+001	2.57052E+001	7.65000E-003	0.00000E+000	2.58659E+001
Pavers	7.44000E-003	1.43930E-001	2.29540E-001	3.00000E-004	6.95000E-003	6.95000E-003	0.00000E+000	2.85080E+001	2.85080E+001	8.60000E-003	0.00000E+000	2.86886E+001
Paving Equipment	6.64000E-003	1.28300E-001	2.04620E-001	2.70000E-004	6.19000E-003	6.19000E-003	0.00000E+000	2.53266E+001	2.53266E+001	7.64000E-003	0.00000E+000	2.54870E+001
Rollers	4.31000E-003	9.84300E-002	1.32910E-001	1.80000E-004	6.90000E-003	6.90000E-003	0.00000E+000	1.65616E+001	1.65616E+001	5.00000E-003	0.00000E+000	1.66665E+001
Rubber Tired Dozers	3.71300E-002	7.17860E-001	8.04500E-001	1.53000E-003	2.72300E-002	2.72300E-002	0.00000E+000	1.46994E+002	1.46994E+002	4.35200E-002	0.00000E+000	1.47908E+002
Scrapers	3.15400E-002	6.09760E-001	6.83350E-001	1.28000E-003	2.31300E-002	2.31300E-002	0.00000E+000	1.22410E+002	1.22410E+002	3.64400E-002	0.00000E+000	1.23176E+002
Tractors/Loaders/Bac khoes	5.98400E-002	1.97935E+000	1.54181E+000	2.05000E-003	8.00100E-002	8.00100E-002	0.00000E+000	1.95722E+002	1.95722E+002	5.83800E-002	0.00000E+000	1.96948E+002
Welders	9.20300E-002	2.81180E-001	3.06370E-001	3.90000E-004	2.31300E-002	2.31300E-002	0.00000E+000	2.87036E+001	2.87036E+001	7.49000E-003	0.00000E+000	2.88610E+001

IrvineK-8
Orange County, Mitigation Report

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.38693E-001	4.27947E-001	2.73272E-002	0.00000E+000	5.16949E-001	5.16949E-001	0.00000E+000	1.45058E-006	1.45058E-006	0.00000E+000	0.00000E+000	1.44700E-006
Cranes	8.11122E-001	6.92151E-001	1.07307E-002	0.00000E+000	7.43769E-001	7.21470E-001	0.00000E+000	1.11977E-006	1.11977E-006	0.00000E+000	0.00000E+000	1.11276E-006
Excavators	6.88716E-001	4.87606E-001	1.69374E-001	0.00000E+000	4.98081E-001	4.54640E-001	0.00000E+000	1.15044E-006	1.15044E-006	0.00000E+000	0.00000E+000	1.14330E-006
Forklifts	8.40444E-001	5.76287E-001	8.62321E-002	0.00000E+000	6.45956E-001	6.15181E-001	0.00000E+000	1.20634E-006	1.20634E-006	0.00000E+000	0.00000E+000	1.04895E-006
Generator Sets	8.08606E-001	4.09731E-001	6.06643E-002	0.00000E+000	4.24319E-001	4.24319E-001	0.00000E+000	1.27619E-006	1.27619E-006	0.00000E+000	0.00000E+000	1.15778E-006
Graders	8.57987E-001	7.31938E-001	6.48416E-002	0.00000E+000	7.69757E-001	7.49690E-001	0.00000E+000	1.16708E-006	1.16708E-006	0.00000E+000	0.00000E+000	1.15983E-006
Pavers	7.23214E-001	5.23994E-001	2.01214E-001	0.00000E+000	5.37284E-001	4.97106E-001	0.00000E+000	1.40311E-006	1.40311E-006	0.00000E+000	0.00000E+000	1.39428E-006
Paving Equipment	6.77043E-001	4.63180E-001	2.00822E-001	0.00000E+000	4.78078E-001	4.32631E-001	0.00000E+000	1.18452E-006	1.18452E-006	0.00000E+000	0.00000E+000	1.17707E-006
Rollers	8.09039E-001	5.28049E-001	1.47517E-002	0.00000E+000	5.50781E-001	5.11677E-001	0.00000E+000	6.03807E-007	6.03807E-007	0.00000E+000	0.00000E+000	1.20001E-006
Rubber Tired Dozers	8.30356E-001	7.11696E-001	5.77451E-001	0.00000E+000	7.65481E-001	7.45085E-001	0.00000E+000	1.15651E-006	1.15651E-006	0.00000E+000	0.00000E+000	1.21697E-006
Scrapers	7.46809E-001	6.21234E-001	3.18925E-001	0.00000E+000	6.44154E-001	6.13211E-001	0.00000E+000	1.14369E-006	1.14369E-006	0.00000E+000	0.00000E+000	1.21777E-006
Tractors/Loaders/Bac khoes	5.93933E-001	1.21815E-001	3.29721E-002	0.00000E+000	5.45449E-001	5.05928E-001	0.00000E+000	1.17514E-006	1.17514E-006	0.00000E+000	0.00000E+000	1.21859E-006
Welders	0.00000E+000	0.00000E+000	3.26392E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.39355E-006	1.39355E-006	0.00000E+000	0.00000E+000	1.03946E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	5.00	PM2.5 Reduction
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)
Yes	Clean Paved Road	% PM Reduction	9.00	

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.08	0.07
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.25	0.07	0.23	0.06	0.08	0.07
Grading	Fugitive Dust	0.75	0.31	0.28	0.11	0.63	0.63
Grading	Roads	0.01	0.00	0.01	0.00	0.08	0.07
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.01	0.00	0.01	0.00	0.08	0.07
Site Preparation	Fugitive Dust	0.78	0.43	0.29	0.16	0.63	0.63
Site Preparation	Roads	0.01	0.00	0.01	0.00	0.08	0.07

IrvineK-8
Orange County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.08	8.08	8.15	7.78	8.08
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	27.52	27.52	27.51	28.57	27.45	27.45	0.00	27.51	27.51	27.55	27.66	27.51
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	18.48	18.53	19.75	20.20	18.56
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IrvineK-8
Orange County, Mitigation Report

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.10	0.32		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

IrvineK-8
Orange County, Mitigation Report

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
Yes	Use Reclaimed Water	0.00	100.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

IrvineK-8
Orange County, Mitigation Report

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services	
Percent Reduction in Waste Disposed	

Appendix

Appendix B Geologic and Environmental Hazard Assessment Report

Appendix

This page intentionally left blank.

**GEOLOGIC AND
ENVIRONMENTAL
HAZARD
ASSESSMENT
REPORT
FOR:**

PROPOSED IRVINE

UNIFIED SCHOOL

DISTRICT K8 SCHOOL

- GREAT PARK



prepared for:

**IRVINE UNIFIED
SCHOOL DISTRICT**

Contact:

*Scott Wilkeson, Facilities
Planning Supervisor*

prepared by:

**THE PLANNING
CENTER|DC&E**

Contact:

*Michael Watson, PG
Project Geologist*

MARCH 2013

**GEOLOGIC AND
ENVIRONMENTAL
HAZARD
ASSESSMENT
REPORT
FOR:**

**PROPOSED IRVINE
UNIFIED SCHOOL
DISTRICT K8 SCHOOL
– GREAT PARK**



prepared for:

**IRVINE UNIFIED
SCHOOL DISTRICT**

100 Nightmist
Irvine, CA 92618
Phone: 949.936.5383

Contact:
Scott Wilkeson,
Facilities Planning
Supervisor

prepared by:

**THE PLANNING
CENTER|DC&E**

2850 Inland Empire Boulevard, Suite B
Ontario, CA 91764
Tel: 909.989.4449
Fax: 909.989.4447

Contact:
Michael Watson, PG
Project Geologist

**ISD-29.0
MARCH 2013**

March 2013
File No. ISD-29.0

Irvine Unified School District
100 Nightmist
Irvine, California 92618

Attention: Mr. Scott Wilkeson

Subject: Geologic and Environmental Hazard Assessment Report
Proposed Irvine Unified School District K8 School – Great Park
Near Intersection of D Street and N 8th Street
Former MCAS El Toro, Irvine, Orange County, California

Dear Mr. Wilkeson:

Enclosed please find the Geologic and Environmental Hazard Assessment Report for the proposed K8 School Site located in the City of Irvine, Orange County, California. Based on the literature review of geologic and environmental hazards that could potentially affect the Site, the following recommendations are proposed:

- An engineering geologic/geotechnical investigation is proposed to make formal determinations on seismic design parameters, liquefaction, seismic settlement and lateral spread potential and soil instability based on Site-specific observations and testing.
- A Preliminary Environmental Assessment is proposed due to historic structures and known environmental conditions at the subject site including underground storage tanks.

Based on a review of the readily available geologic literature, there are no known active faults on or immediately adjacent (i.e., within a few hundred feet) to the Site. Conditions such as strong seismic shaking, sheet flooding and unstable soil properties, such as expansive or compressible soils, and liquefaction should be mitigated using state-of-the-practice engineering geology/geotechnical design measures. The Planning Center|DC&E is submitting this Geologic and Environmental Hazard Assessment Report to Irvine Unified School District as part of the ongoing assessment of the proposed school Site.

Sincerely yours,
THE PLANNING CENTER|DC&E



Michael Watson, PG 8177
Project Geologist

Enclosures

Table of Contents

Section	Page
EXECUTIVE SUMMARY.....	III
1. INTRODUCTION.....	1
1.1 PROJECT BACKGROUND AND SITE DESCRIPTION.....	1
1.2 PROJECT OBJECTIVE	1
2. SITE GEOLOGIC CONDITIONS	3
2.1 LOCAL GEOLOGIC SETTING	3
2.2 FAULTS AND EARTHQUAKES	3
2.3 SURFACE WATER AND GROUNDWATER.....	5
3. GEOLOGIC HAZARDS.....	7
3.1 FAULT RUPTURE	7
3.2 SEISMIC GROUND MOTION	7
3.3 LIQUEFACTION	7
3.4 LANDSLIDES AND SLOPE INSTABILITY	8
3.5 SOIL INSTABILITY	8
3.6 SUBSIDENCE	8
3.7 FLOODING.....	9
3.8 TSUNAMIS AND SEICHES	9
3.9 ASBESTOS MINERALS, OIL AND GAS FIELDS, RADON AND METHANE	9
3.10 PROXIMITY TO HIGH PRESSURE PIPELINES, HIGH VOLTAGE POWER LINES AND ABOVE-GROUND STORAGE TANKS	9
4. CONCLUSIONS AND RECOMMENDATIONS.....	12
5. GENERAL CONDITIONS	14
6. REFERENCES.....	16

APPENDICES

- A. Glossary of Terms
- B. Oil and Gas Information
- C. Agency Letters



Table of Contents

List of Tables

Table

Table 1 Summary of Faults Considered Significant to the Proposed Irvine USD K8 School – Great Park

List of Figures

Figure

Figure 1 Site Location

Figure 2 Aerial Photograph

Figure 3 Geologic Map

Figure 4 Fault Map

Executive Summary

This Geologic and Environmental Hazard Assessment Report for the Proposed Irvine Unified School District K8 School – Great Park (Site) was prepared by The Planning Center|DC&E on behalf of Irvine Unified School District (the District) to meet the California Code of Regulations requirements to assess potential geologic and environmental hazards at properties that are proposed for school facilities development. Requirements for the performance of such hazard reviews are provided in the California Code of Regulations Title 5, Division 1, Chapter 13; Public Resources Code, Division 2, Chapter 7.8 (Seismic Hazards Mapping Act) and Education Code 17212.5. A glossary of terms used in this report is included in Appendix A.

Based on the review and evaluation of the references cited in Section 6.0 and a Site reconnaissance by a geologist of The Planning Center|DC&E, the following conclusions are made regarding the Site:

- **Fault Rupture and Alquist-Priolo Earthquake Fault Zone** – The Site does not lie within or immediately adjacent to a fault-rupture hazard zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. The nearest Alquist-Priolo Earthquake Fault Zone is the Elsinore Fault and is located approximately 12.6 miles northeast of the Site. On the basis of existing geologic maps, the potential for tectonic fault rupture at the Site is considered negligible.
- **Seismic Ground Motions** – The Site is expected to experience strong ground shaking from numerous local (i.e., San Joaquin Hills Blind Thrust, Elsinore, Whittier and Newport-Inglewood faults) and more distant (e.g., Chino-Central Avenue, Puente Hills Blind Thrust, Palos Verdes and San Jose faults) seismic sources in the Orange County region. The final estimated ground motions determined for project design at the Site will depend upon site-specific soil conditions, which should be determined based a standard site-specific engineering geology/geotechnical investigation. High levels of ground motion can be mitigated by proper engineering design.
- **Liquefaction and Seismic Settlement** – The Site and surrounding area have been shown in the City of Irvine General Plan (2012) and CDMG (2001) to have a remote susceptibility to liquefaction. Historic high groundwater levels indicate groundwater has been greater than 40 feet below ground surface (CDMG 2000a). Liquefaction and seismic settlement potential cannot be ruled out in the alluvial formations underlying the Site. Final liquefaction and seismic settlement potential at the Site must be evaluated by a standard site-specific engineering geology/geotechnical investigation. Liquefaction and seismic settlement can be mitigated by proper engineering design.
- **Landslides and Slope Instability** – Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, El Toro, California Quadrangle Map (USGS 1997), topography of the Site is gently sloping (slopes less than 1.8-percent) to the west. The lack of significant slopes on or near the Site indicates that there is not a significant potential hazard from slope instability, landslides and debris flows at the Site. However, due to the possibility for shallow (perched) groundwater and liquefaction potential, the possibility of a lateral spread landslide should be evaluated in a site-specific engineering geology/geotechnical investigation.
- **Soil Instability** – CDMG (2000a) indicate that the Site is underlain by Holocene and late Pleistocene alluvial fan deposits consisting of poorly consolidated and poorly sorted clay, silt and sand. Alluvial units could be subject to consolidation under building loads, and could contain expansive and compressible units/soils. Such conditions can be mitigated by proper engineering design based on a standard site-specific engineering geology/geotechnical investigation.



Executive Summary

- **Subsidence** – The City of Irvine General Plan (2012) does not report subsidence in the vicinity of the Site. If subsidence ground cracking were to occur, it should be regional in nature and may be more likely to be focused along the boundary of the groundwater basin or a buried structural feature, such as the Newport-Inglewood Fault southwest of the Site. The potential for subsidence cracking at the Site is considered to be negligible.
- **Flooding** – The Site does not lie within a 100-year or 500-year flood plain. The Site does not lie within an area prone to inundation from dam failure (OES 2007). Sheet flooding during periods of infrequent high seasonal precipitation is likely to occur and have the potential to induce local temporary flooding. Sheet flooding can be mitigated by proper engineering design.
- **Tsunamis/Seiches** – Tsunamis are not an issue due to distance from the ocean. Due to the lack of large surface water bodies up slope and near the Site, the flooding due to seismically induced seiches is not considered to be a potential hazard for the Site.
- **Asbestos Minerals, Oil and Gas Fields, Radon and Methane** – There is no evidence for naturally occurring serpentine rock or formations containing significant quantities of asbestos in the surrounding region.

There are no oil or natural gas fields located in the beneath the Site. Naturally-occurring petroleum hydrocarbons are not expected to impact the subject Site (Appendix B).

The Orange County region is classified by the United States Environmental Protection Agency as a low potential for radon (at or less than 2 pico-Curies per liter). No mitigation is necessary.

- **Proximity to Railroads** – No railroads are located within 1,500 feet of the Site.
- **Proximity to an Arterial Roadway or Freeway** – The Site is not located adjacent to or near a major arterial roadway or freeway. No mitigation is necessary.
- **Proximity to Airport Runways** – The Site is not located within two nautical miles of the center line of an active airport runway. No impact is anticipated.
- **Proximity to a Significant Disposal of Hazardous Waste** – According to the database report obtained from EDR, dated August 9, 2012, the subject property and adjoining properties were identified in the environmental databases searched by EDR. MCAS El Toro is identified as a Department of Defense (DOD) site, DOD sites are federally owned or administered lands that have any area equal to or greater than 640 acres (Appendix B). Based on site inspections and information reviewed for preparation of this report, the school site is not located on a current or former disposal site. In addition, a historic groundwater plume boundary associated with the former base gas station is located approximately 3,600 feet to the southwest of the proposed school site. No significant impact is anticipated to the project site.
- **Project Environmental Impact (Light, Wind, Noise, Aesthetics and Air Pollution)** – The project is not expected to have a significant negative impact on the project area's environmental factors of light, wind and aesthetics. The project will not have a significant impact with respect to noise and air pollution associated with its proximity to a freeway. In accordance with the requirements set forth by SB 352, the project does not involve constructing a school within 500 feet of a freeway.
- **Proximity to High-Pressure Pipelines (Natural Gas or Liquid), High-Voltage Power Lines and Aboveground Storage Tanks** – No aboveground storage tanks were identified within 1,500

Executive Summary

feet of the Site. Based on correspondence with Southern California Edison, there are no high voltage power lines within 350 feet of the Site. Based on correspondence with Underground Service Alert and the Office of the State Fire Marshal, no high-pressure gas pipelines were identified within 1,500 feet of the Site (Appendix C). Irvine Ranch Water District does not operate any high-volume water lines within 1,500 feet of the Site.



Executive Summary

This page intentionally left blank

1. Introduction

1.1 PROJECT BACKGROUND AND SITE DESCRIPTION

This report presents the results of the geologic and environmental hazards review for the 13-acre Proposed Irvine Unified School District K-8 School – Great Park (Site) located to the west of the runways near the intersection of D Street and N 8th Street on the former Marine Corps Air Station El Toro in the City of Irvine, Orange County, California (Figure 1). The site historically had been used by the military for an auditorium, library, chapel and chapel administrative office. The buildings have been demolished as part of the decommissioning activities at the former base. The proposed K-8 School Site is within the Great Park Neighborhoods project, part of the Heritage Fields El Toro District 1.

The Site currently includes vacant land and the foundations of the former structures have been removed (Figure 2). The Site is located at 33.6878 north latitude and 117.7352 west longitude in portions of Section 5 of Township 6 South, Range 8 West and Section 32 of Township 5 South, Range 8 West of the San Bernardino Base Line and Meridian. This Geologic and Environmental Hazards Assessment Report was prepared by The Planning Center|DC&E on behalf of Irvine Unified School District (District). The District is planning to build a K-8 school on the Site.

1.2 PROJECT OBJECTIVE

The objective of this investigation was to meet the California Code of Regulations requirements to assess properties for potential geologic and environmental hazards that are being considered or proposed for development of school facilities. Requirements for the performance of such geologic and environmental hazard assessments are provided in the California Code of Regulations Title 5, Division 1, Chapter 13; Public Resources Code, Division 2, Chapter 7.8 (Seismic Hazards Mapping Act) and Education Code 17212.5. As discussed in the above Title 5 regulation and in the CDE School Site Selection and Approval Guide (2000), geologic and environmental hazards evaluation for potential school sites address the potential for impacts from:

- Fault Rupture and Alquist-Priolo Earthquake Fault Zones;
- Seismic Ground Motion;
- Liquefaction and Seismic Settlement;
- Landslides and Slope Instability;
- Soil Instability;
- Subsidence;
- Flooding;
- Asbestos Minerals, Oil and Gas Fields, and Radon;
- Proximity to Railroads;
- Proximity to an Arterial Roadway or Freeway;
- Proximity to Airport Runways;
- Proximity to a Significant Disposal of Hazardous Waste;



1. Introduction

- Surrounding Land Use Compatibility;
- Project Environmental Impact (Light, Wind, Noise, Aesthetics and Air Pollution); and
- Proximity to High-Pressure Pipelines, High-Voltage Power Lines and Aboveground Storage Tanks.

The scope of The Planning Center|DC&E's services consisted of reviewing readily available geologic, geotechnical and environmental information, visiting the site, and preparing this report. This report summarizes the information reviewed and presents our findings and conclusions. Field sampling, field investigations (e.g., mapping, drilling, geophysical surveys), and soils testing were outside the scope of work for this investigation and therefore no field investigations were performed for inclusion within this report. No site-specific geology or geotechnical reports were provided by the District for this Site. The contents of this study are in general conformance with requirements for the performance of such geologic and environmental hazard reviews in the California Code of Regulations Title 5, Division 1, Chapter 13; Public Resources Code, Division 2, Chapter 7.8 (Seismic Hazards Mapping Act) and Education Code 17212.5.

2. Site Geologic Conditions

2.1 LOCAL GEOLOGIC SETTING

The Site is located on the southeast edge of the Tustin Plain within the coastal plain of the Los Angeles Basin, in the northern part of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges Geomorphic Province extends approximately 900 miles southward from the Los Angeles Basin to Baja California, Mexico and is characterized by elongated northwest-trending mountain ranges separated by sediment-floored valleys (Yerkes *et al.* 1965). The most dominant structural features of the province are the northwest-trending fault zones, most of which die out, merge with, or are terminated by the steep reverse faults at the southern margin of the Santa Monica and San Gabriel Mountains within the Transverse Ranges Geomorphic Province far to the north of the Site. The Tustin Plain is a gently sloping surface of alluvial fan deposits derived primarily from the Santa Ana Mountains. Bounded to the north and east by the Santa Ana Mountains and to the south by the San Joaquin Hills, the Tustin Plain is at the southeast end of the Los Angeles Basin. The surface is covered by Holocene and late Pliocene alluvial fan deposits comprised mostly of sand (Morton 2004). The Holocene alluvial fan materials are comprised of isolated, coarse-grained stream channel deposits contained within a matrix of fine-grained overbank deposits that range up to a maximum of 300 feet in thickness. The Holocene alluvial materials conformably overlie Pleistocene Age sediments predominantly comprised of interlayered, fine-grained lagoonal and near-shore marine deposits. These materials become increasingly mixed with beach sand, terrace, and stream-channel deposits in the east portion of the Tustin Plain and along the plain margins. The Quaternary deposits form a heterogeneous mixture of silts and clays with interbedded sand and fine-grained gravels that range up to 500 feet in thickness in the west portion of the Tustin Plain. The deeper Quaternary sediments may be equivalent to the lower Pleistocene San Pedro Formation, which is comprised of semi-consolidated silts, clays, and sands with interbedded limestone. These lagoonal and shallow marine deposits are considered to be a major water-bearing unit in the region.

The former MCAS El Toro boundaries extend across the Tustin Plain into the Santa Ana Mountains. The Santa Ana Mountains rise steeply north and east of the station; the highest peak is 6,698 feet, and is approximately 10 miles east of the station. The San Joaquin Hills slope gradually to the south; their highest point is 1,170 feet, and is approximately 10 miles south of the station. The land to the northwest of the station is relatively flat.

Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, El Toro, California Quadrangle Map (USGS 1997), the Site is on an alluvial fan on the southeast part of the Los Angeles Basin. The Site elevation ranges from approximately 315 feet to 330 feet above mean sea level (msl) (USGS 1997). Surrounding areas away from the Site have gentle terrain. The topography of the Site is gently sloping (slopes less than 1.8-percent) to the west. A site visit was performed by a representative of The Planning Center|DC&E (2012) to confirm the general surface conditions described above.

2.2 FAULTS AND EARTHQUAKES

The Site is located within a seismically active region bounded by major geologic structures (active faults) and affected by historic large earthquakes. Therefore, it is reasonable to assume that the Site will be subjected to future severe seismic shaking that may occur along one or more of these local or regional faults. The earthquake characteristics of the most significant active faults within 25 miles of the proposed school site are listed in Table 1. The State of California (Hart and Bryant 2007) defines an “active fault” as one that has had surface displacement within Holocene time (approximately the last 11,000 years). “Potentially Active” faults are defined as faults that show evidence of surface displacement during Quaternary time (within the last 1.6 million years).



2. Site Geologic Conditions

2.2.1 Potentially Active and Active Faults

Based on a review of the readily available geologic literature (Morton 2004; CDMG 2000b; Jennings 1994; Jennings and Bryant 2010) and recent Irvine and Orange County planning documents (Irvine 2012; Orange County 2004), there are no known active faults passing through or immediately adjacent (i.e., within a few hundred feet) to the proposed school Site and the Site is not within or immediately adjacent to a fault-rupture hazard zone (Alquist-Priolo Earthquake Fault Zone). Active or potentially active faults of importance to the Site are listed in Table 1 (Cao *et al.* 2003) and are discussed below by order of proximity to the Site. The nearest mapped active surface fault of significant length is the San Joaquin Hills Blind Thrust Fault located about 4.0 miles to the southwest of the Site (Cao *et al.* 2003).

The most important structural features in the area from a seismic shaking standpoint are the San Joaquin Hills Blind Thrust Fault and the Newport-Inglewood Fault southwest of the Site and the Elsinore Fault northeast of the Site (USGS 2008). Other active and potentially active faults exist within 100 kilometers of the Site, but their earthquake effects at the Site would likely be equal to or less than effects from the eight faults described below (USGS 2008; Cao *et al.* 2003).

The San Joaquin Hills Blind Thrust Fault is located at depth about 4.0 miles southwest of the Site (“blind” indicates that the fault does not reach the ground surface). The recently discovered San Joaquin Hills Blind Thrust Fault is responsible for the uplift of the San Joaquin Hills (Grant *et al.* 1999). The San Joaquin Hills Blind Thrust Fault is approximately 17 miles long. California Geological Survey [CGS; formerly known as CDMG] (Cao *et al.* 2003) estimates a maximum earthquake of Magnitude (M) 6.6 and an average slip rate of 0.5 (± 0.2) millimeters per year (mm/yr) for the San Joaquin Hills Blind Thrust Fault. The fault is characterized by reverse dip-slip movement and has a primary dip direction to the southwest at about 23 degrees. The San Joaquin Hills Blind Thrust Fault is considered active and is not included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California.

The Whittier Fault is located approximately 11.4 miles north of the Site. The Whittier Fault trends southeast along the southern slopes of the Puente Hills (California Department of Water Resources [CDWR] 1967). Offset drainage patterns within the Chino Hills clearly indicate that there has also been lateral movement. Sharp bends in Brea and Carbon Canyons in the fault zone show that the northern block has moved several thousand feet southeast relative to the southern block. The Whittier Fault is approximately 23.6 miles long, extending southeast from Turnbull Canyon in Whittier. CGS (Cao *et al.* 2003) estimates an average slip rate of 2.5 (± 1.0) mm/yr for the Whittier Fault, which is characterized by right-lateral reverse oblique-slip movement. The primary dip direction is to the northeast at about 75 degrees. This fault zone is considered active and is included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California. A maximum earthquake of M 6.8 is estimated by CGS (Cao *et al.* 2003).

The Glen Ivy and Temecula segments of the Elsinore Fault are located about 11.6 miles northeast and 24.1 miles east of the site, respectively. Extending southeast from Corona, the Glen Ivy segment is approximately 22 miles long, followed by the 27-mile-long Temecula segment. CGS (Cao *et al.* 2003) estimates a maximum earthquake of M 6.8 for both segments. The Elsinore Fault is characterized by right-lateral strike-slip movement and both segments have an average slip rate of 5.0 (± 2.0) mm/yr. Subsurface investigations have shown that the Elsinore Fault is active and may have a recurrence interval on the order of about 250 years for large earthquakes (Rockwell *et al.* 1986). This fault zone is considered active and is included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California.

The Chino-Central Avenue Fault Zone is located about 12.7 miles northeast of the site. The Chino-Central Avenue Fault Zone is approximately 17.4 miles long, extending southeast from the Phillips Ranch area of Pomona. CGS (Cao *et al.* 2003) estimates an average slip rate of 1.0 (± 1.0) mm/yr for the Chino-

2. Site Geologic Conditions

Central Avenue Fault Zone, which is characterized by right-lateral reverse oblique-slip movement. The primary dip direction is to the southwest at about 65 degrees. The Chino-Central Avenue Fault Zone is considered active and is included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California. A maximum earthquake of M 6.7 is estimated by CGS (Cao *et al.* 2003).

The L.A. Basin and Offshore segments of the Newport-Inglewood Fault Zone are located to the southwest about 13.0 miles and 13.2 miles from the Site, respectively. Extending southeast from Culver City, the Los Angeles Basin segment is approximately 41 miles long and includes multiple segments. The Offshore segment is about 41 miles long, extending southeast from the vicinity of Newport Beach to offshore of Oceanside. CGS (Cao *et al.* 2003) estimates a maximum earthquake of M 7.1 for both segments of the Newport-Inglewood Fault Zone. The M 6.3 earthquake of 1933 in Long Beach was attributed to the Newport-Inglewood Fault Zone. The Newport-Inglewood Fault Zone is characterized by right-lateral strike-slip movement and the L.A. Basin segment has an average slip rate of 1.0 (± 0.5) mm/yr. The Offshore segment has an average slip rate of 1.5 (± 0.5) mm/yr. This fault zone is considered active and the L.A. Basin segment is included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California.

The Puente Hills Blind Thrust Fault is located at depth about 16.4 miles northwest of the Site. Subsurface cross-sections of this and other similar faults under the Los Angeles Basin, prepared by Davis *et al.* (1989), suggest a connection of these faults with a sub-horizontal master thrust fault at great depth below the land surface. The Puente Hills Blind Thrust Fault is approximately 27 miles long. CGS (Cao *et al.* 2003) estimates an average slip rate of 0.7 (± 0.4) mm/yr for the Puente Hills Blind Thrust Fault, which is characterized by reverse dip-slip movement and a maximum earthquake of M 7.1. The primary dip direction is to the north at about 25 degrees. The Puente Hills Blind Thrust Fault is considered active and is not included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California.

The San Jose Fault is located about 24.4 miles north of the Site. The San Jose Fault is approximately 12.4 miles long, extending southwest and west from near the mouth of San Antonio Canyon. The CGS (Cao *et al.* 2003) estimates an average slip rate of 0.5 (± 0.5) mm/yr for the San Jose Fault, which is characterized by left-lateral reverse oblique-slip movement. The primary dip direction is to the northwest at about 75 degrees. This fault zone was responsible for the M 5.4 earthquake of 1990 in Upland. This fault zone is considered active and is not included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California. A maximum earthquake of M 6.4 is estimated by CGS (Cao *et al.* 2003).

The Palos Verdes Fault Zone is located about 24.8 miles southwest of the Site. The Palos Verdes Fault Zone is approximately 60 miles long, extending southeast from near the head of submarine Santa Monica Canyon under Santa Monica Bay, across the Palos Verdes Peninsula and continuing southeast from San Pedro Bay offshore. CGS (Cao *et al.* 2003) estimates an average slip rate of 3.0 (± 1.0) mm/yr for the Palos Verdes Fault Zone, which is characterized by right-lateral strike-slip movement and a maximum earthquake of M 7.3. This fault zone is considered active and is not included within an Alquist-Priolo Earthquake Fault Zone designated by the State of California.

2.3 SURFACE WATER AND GROUNDWATER

The nearest surface water is the culvert for Bee Canyon Wash, which is located under the runway about 1,800 feet southeast of the site (USGS 1997). Several washes originate in the hills to the northeast of former MCAS El Toro and flow through or adjacent to the former base toward San Diego Creek. Three drainage channels, Borrego Canyon, Agua Chinon and Bee Canyon are contiguous with natural washes that originate in the Santa Ana Mountains.

Former MCAS El Toro is situated over the Irvine Subbasin in the Main Orange County Groundwater



2. *Site Geologic Conditions*

Basin. Although the aquifers beneath the Tustin Plain are in hydraulic contact with the Main Orange County Groundwater Basin, it is difficult to make correlations among specific aquifer zones. In the Irvine area, aquifers are much thinner and separated by thicker sequences of fine-grained materials. Aquifers tend to be comprised of lenticular clayey and silty sands and fine-grained gravels contained within a complex assemblage of sandy clays and sandy silts. Thus, instead of identifiable aquifers that may be correlated from place to place, the groundwater may be considered to flow in a single, large-scale, heterogeneous system.

Investigations by the Orange County Water District (OCWD) northwest of the station have revealed the presence of three distinct hydrochemical layers in groundwater related to depth in the aquifer. The first layer, characteristic of shallow groundwater lying within approximately 200 feet of the ground surface, contains relatively high levels of total dissolved solids (TDS) and nitrate, and is dominated by calcium and sulfate ions. The second layer, characteristic of groundwater lying between approximately 200 and 450 feet bgs, contains lower levels of TDS and nitrate, and is dominated by sodium, calcium, and bicarbonate ions. The third layer lies with the lower hydrogeologic system at depths greater than 450 feet, contains relatively high levels of TDS and relatively low levels of nitrate, and is dominated by sodium and sulfate ions. Shallow groundwater depths ranged from 154 to 162 feet bgs at the former base gas station located approximately 3,600 feet to the southwest of the proposed school site. Hydrogeologic investigations were not performed on the Site for this investigation; therefore, it is unknown to what extent localized variations in groundwater conditions occur beneath the Site.

3. *Geologic and Environmental Hazards*

The State of California has conducted seismic hazards mapping for the El Toro 7.5' quadrangle (CDMG 2000a). The information presented below is from this and other readily available literature sources as indicated and, in general, identifies geologic hazards as presented by the City of Irvine General Plan (2012).

3.1 FAULT RUPTURE

The Site is not within or immediately adjacent to an Alquist-Priolo Earthquake Fault Zone (California Division of Mines and Geology [CDMG, renamed the California Geological Survey-CGS] 2000b). The nearest Alquist-Priolo Earthquake Fault Zone is located approximately 12.6 miles northeast of the Site for the Elsinore Fault (CGS 2003). Based on a review of the readily available geologic literature, there are no known active faults on or immediately adjacent (i.e., within a few hundred feet) to the Site (Morton 2004; Jennings 1994; Jennings and Bryant 2010).

3.2 SEISMIC GROUND MOTION

Peak horizontal ground acceleration (PHGA) values that could be expected at this location are based on types and characteristics of fault sources, distances and estimated maximum earthquake magnitude and subsurface site geology. The accuracy of the PHGA estimate will depend upon the method of determination. The maximum magnitude earthquake (Mmax) is considered to be the largest earthquake that is expected to occur along a fault under the current tectonic framework and is based in part on various fault characteristics (length, style of faulting and historic seismicity). The San Joaquin Hills Blind Thrust Fault Zone is the dominant active fault that could be expected to significantly impact the Site (USGS 2008).

Amplification or deamplification of the ground motion will likely occur as it passes from the bedrock and through the softer, deep alluvial deposits present at the Site to the ground surface. The actual estimated PHGA at surface of the Site will depend upon site amplification/deamplification effects, which depend substantially on the thickness of sedimentary deposits beneath the Site not presently known with certainty. Based on USGS amplification estimates for the Orange County area based on a 1.0-second spectral acceleration (Field 2001), site effects from the geologic units underlying the Site may be more than twice the effect of crystalline bedrock at this same location.

The seismic design of public school buildings is governed by the requirements of the 2010 California Building Code (CBC). All site-specific seismic design parameters must be determined based on the subsurface soil conditions encountered during a geotechnical/engineering geologic investigation.

3.3 LIQUEFACTION

Groundwater is not expected to be encountered at the present time within 100 feet beneath the Site, except for perched groundwater. The City of Irvine General Plan (2012) indicates that the Site has a remote susceptibility to liquefaction. This is supported in that CDMG (2001) identifies the vicinity of the Site as not being within an area of required investigation for liquefaction. Historic high groundwater is identified as greater than 40 feet below the ground surface in CDMG (2000a). Based on the alluvial soils and on the seismic setting of the Site, an evaluation of liquefaction potential based on site-specific subsurface explorations should be included in future geotechnical investigations at the Site. The evaluation should be consistent with recommended procedures for implementation of the guidelines for analyzing and mitigating liquefaction hazards (SCEC 1999) in California Special Publication 117 for of the California Department of Conservation, Division of Mines and Geology.



3. *Geologic and Environmental Hazards*

3.4 LANDSLIDES AND SLOPE INSTABILITY

Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, El Toro, California Quadrangle Map (USGS 1997), the topography of the Site is gently sloping (slopes less than 1.8-percent), toward the west. The lack of significant slopes on or near the Site indicates that there is not a significant potential hazard from slope instability, landslides and debris flows at the Site. This conclusion is supported in that CDMG (2001) indicated that none of the Site is susceptible to seismically induced landsliding. Although a liquefaction-induced lateral spread landslide may be unlikely due to the lack of a “free-face” adjacent to the Site, this possibility should be discussed in the liquefaction potential assessment within the engineering geology/geotechnical investigation, as necessary.

3.5 SOIL INSTABILITY

According to the United States Department of Agriculture, Soil Conservation Service (USDA 1978) the soils at the proposed school site belong to San Emigdio association. San Emigdio soils are fine sandy loams formed on mixed alluvium. Typically the soils are fine sandy loams to 7 inches, underlain by stratified fine sandy loam, sandy loam, very fine sandy loam, and gravelly loamy coarse sands that extend to a depth of 61 inches or more. San Emigdio soils have moderate infiltration rates that are well drained.

Natural soils may be susceptible to expansion, consolidation, and collapse (including hydro-collapse with the addition of water). Consolidation is a condition that occurs when increased load is placed atop a soil with a low relative density, causing pore spaces to become smaller and where saturated forcing water to be squeezed out. Hydro-collapse is a condition that occurs when a dry soil that is able to withstand increased load in a dry condition collapses upon saturation. Expansive soils swell when they become wet and shrink when they dry out, resulting in the potential for cracked building foundations and in some cases, structural distress of the buildings themselves. In each case, minor to severe damage to overlying structures is possible. Based on the reported soil types on and around the Site, it is possible that unstable soils may be present there. This is supported in that CDMG (2000a) identify the area as having a potential for expansive and compressible clay deposits. The potential for consolidation and expansive soils should be evaluated during the necessary engineering geology/geotechnical investigation.

3.6 SUBSIDENCE

Subsidence of the ground surface has been reported in the alluvial basins where significant amounts of groundwater (often in an overdraft condition; e.g., Lofgren 1971) or petroleum products (oil and natural gas; Allen 1973) are withdrawn over long periods. The primary cause of non-tectonic subsidence in alluvial basin areas has been the alluvial compaction by closing of porosity due to removal of large quantities of fluid (groundwater or oil). For groundwater basins this results in a significant lowering of the groundwater levels and in oil fields depletion of the oil reserves.

Based on the stability of groundwater levels over the past 50 years in the area, the potential for significant subsidence affects at the Site due to the withdrawal of groundwater are low. The Newport and San Clemente oil fields are located over 10 miles west and 16 miles southeast of the Site, respectively (California Department of Conservation 2005 and 2010). The distance from the oil fields suggests that subsidence due to oil withdrawal is unlikely to significantly impact the Site. If subsidence were to occur near the Site, it could be regional in nature or may be focused along the boundary of the groundwater basin, the oil/gas storage field, or a buried structural feature. If subsidence features were ever noted in the Site area, the water agencies or oil production/gas storage companies would be responsible to take action to prevent adverse impacts to overlying structures. On the basis of the references cited, the potential for subsidence-related ground fissures or cracking at the Site is negligible.

3. *Geologic and Environmental Hazards*

3.7 FLOODING

Federal Emergency Management Agency (FEMA 2009) created a Flood Insurance Rate Map (FIRM) for the area, which indicates that the Site is not located within a 100-year or 500-year flood zone. No evidence of recent flooding on the Site was observed during the geologic field reconnaissance. Sheet flow runoff on the Site would be expected during periods of intense or prolonged precipitation that would flow southwest, and towards the unnamed wash that crosses the Site. According to the California Office of Emergency Services (OES 2007), the Site is not within any dam inundation zones.

3.8 TSUNAMIS AND SEICHES

Tsunamis are a type of earthquake induced flooding produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor topography upon approaching a landmass, resulting in an increase in wave height, and a destructive run-up (wave surge) into low lying coastal areas. Based on the elevation of the Site and distance from the ocean, there is no potential for tsunamis to impact the Site. Seiching consists of the periodic oscillation of a body of water, which may occur during and following an earthquake. As there are no large bodies of water on Site or in the immediate vicinity up slope from the Site, seiching is not considered to be a potential hazard for the Site.

3.9 ASBESTOS MINERALS, OIL AND GAS FIELDS AND RADON

Based on available data, no naturally-occurring serpentine rock or rock formations that may contain a significant quantity of asbestos are located in the area surrounding the Site (Van Gosen and Clinkenbeard 2011).

A review of California Division of Oil, Gas and Geothermal Resources, Wildcat Map Series, Map W1-4, (California Department of Conservation 2010) indicated that there are no active or abandoned oil or gas fields on the subject Site. According to Map W1-4 (California Department of Conservation 2010), the closest oil well is located approximately 0.5 miles west of the Site. The well, labeled "Irvine Plain Core Hole 5", was advanced by CalResources LLC and is identified as a plugged and abandoned dry hole (Appendix B). Based on the lack of oil and gas production in the immediate area, the potential for exposure to naturally occurring hydrocarbons at the Site is considered low.

The Orange County region is classified by the USEPA as a low potential for radon (less than 2 pico-Curies per liter). No impact is expected.

3.10 PROXIMITY TO RAILROADS

Based on a Site reconnaissance (The Planning Center|DC&E 2012) no railroads are located within 1,500 feet of the Site. According to USGS (1997), the closest railroad easement is located about 1.5 miles southwest of the Site and is owned by Atchison, Topeka and Santa Fe. No impact is anticipated.

3.11 PROXIMITY TO AIRPORT RUNWAYS

Based on information obtained from the California Department of Transportation Division of Aeronautics and Google Earth, the Site is not located within two nautical miles of the center line of an active airport runway. The closest active airport runway is John Wayne Airport which is located approximately 6.4 nautical miles west of the Site. The closest inactive runway of the former MCAS El Toro is located about 0.18 nautical miles east of the Site, but will be demolished before the school is built. No impact is anticipated.



3. *Geologic and Environmental Hazards*

3.12 PROXIMITY TO A SIGNIFICANT DISPOSAL OF HAZARDOUS WASTE

The Planning Center|DC&E utilized the electronic database service Environmental Database Resources (EDR) to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced Agency records, located within the ASTM-specified search radii indicated below:

- NPL sites:.....1 mile
- CERCLIS sites:.....0.5 mile
- CERCLIS NFRAP sites..... Site and Adjoining
- Federal ERNS:Site only
- RCRA non-CORRACTS TSD facilities:..... 0.5 mile
- RCRA CORRACTS TSD facilities:.....1 mile
- RCRA Generators:.....Site & Adjoining
- State Hazardous Waste Sites:.....1 mile
- Registered Underground Storage Tanks:.....Site & Adjoining
- State Landfills and Solid Waste Disposal Sites:0.5 mile
- State Leaking Underground Storage Tanks:0.5 mile

According to the database report obtained from EDR, dated August 9, 2012, the subject property and adjoining properties were identified in the environmental databases searched by EDR. MCAS El Toro is identified as a Department of Defense (DOD) site, DOD sites are federally owned or administered lands that have any area equal to or greater than 640 acres (Appendix B). Based on site inspections and information reviewed for preparation of this report, the school site is not located on a current or former disposal site. In addition, a historic groundwater plume boundary associated with the former base gas station is located approximately 3,600 feet to the southwest of the proposed school site. No significant impact is anticipated to the project site.

3.13 PROJECT ENVIRONMENTAL IMPACTS INCLUDING LIGHT, WIND, NOISE, AESTHETICS AND AIR POLLUTION

The project will not have a significant impact with respect to noise and air pollution associated with its proximity to a freeway. In accordance with the requirements set forth by SB 352, the project does not involve constructing a school within 500 feet of a freeway (Education Code Section 17213(d)(9)).

To determine the potential for significant air pollution levels from stationary sources of emissions in the Site's vicinity, the South Coast Air Quality Management District (SCAQMD) Facility Information Detail (FIND) website was accessed on March 12, 2013 to perform a "grid search" for facilities within a quarter mile radius of the proposed school site with the potential to emit hazardous or acutely hazardous air emissions (Appendix A). Based on the online database search, no facilities were identified within ¼ mile of the Site. In addition, a reconnaissance of the area indicated that manufacturing facilities were not located in the vicinity of the Site. Therefore, no impact is anticipated to the project site.

3. *Geologic and Environmental Hazards*

Finally, the project is not expected to have a significant negative impact on the project area's environmental factors of light, wind and aesthetics. Architectural structures associated with the proposed Site will be aesthetically pleasing, and designed to be consistent with, and to complement the surrounding community. Proposed structures associated with the project are not expected to adversely impact the above mentioned environmental factors.

3.14 PROXIMITY TO HIGH PRESSURE PIPELINES, HIGH VOLTAGE POWER LINES AND ABOVE-GROUND STORAGE TANKS

No above-ground storage tanks were identified within 1,500-feet of the Site based on topographic maps, aerial photographs and a Site reconnaissance (The Planning Center|DC&E 2012).

A letter was sent to the Office of the State Fire Marshal on October 4, 2012 requesting information regarding the locations of high-pressure pipelines located within a 1,500 foot radius of the Site. Based on information received from the Office of the State Fire Marshal, no pipelines jurisdictional to their agency are located in the site vicinity (Appendix C).

The Underground Service Alert (USA) website was accessed on October 4, 2012 to request a list of utility companies in the vicinity of the subject property that may operate transmission lines (USA 2012). USA provided a list of nine companies, including the Southern California Gas Company (SCGC), which provides gas services in the vicinity of the subject property, the Irvine Ranch Water District (IRWD), which provides water to the City of Irvine, and United Paradyne. Southern California Edison provides electricity in the site vicinity.

Southern California Gas Company

SCGC has reported that there are no high pressure gas facilities within 1,500 feet of the site (Appendix C).

Irvine Ranch Water District

IRWD was contacted via mail on October 15, 2012 to get information on water lines in the area. IRWD indicated on December 17, 2012 that they do not operate high-capacity water facilities (at 12-inches in diameter or greater) within 1,500 feet of the Site.

Southern California Edison

SCE was contacted via electronic mail on February 14, 2013. SCE responded that the Site does not have any high voltage power lines within 350 feet that fall into Title 5 setback recommendations (Appendix C).

United Paradyne

United Paradyne was contacted via mail on October 15, 2012. United Paradyne responded that they do not operate any pipelines within 1,500 feet of the Site.



4. *Conclusions and Recommendations*

Based on the above literature review of geologic and environmental hazards that could potentially affect the Site, no known potential geologic hazards exist at the Site that would disqualify the Site for the proposed school construction. There are, however, several potentially significant geologic hazards that will require mitigation using state-of-the-practice techniques. Conditions such as strong seismic shaking, sheet flooding and unstable soil properties, such as expansive or compressible soils, and liquefaction should be mitigated using state-of-the-practice engineering geology/geotechnical design measures. Other non-geology requirements in Education Code 17212.2 were out of the scope of this report and should be addressed in a subsequent report for review by the California Department of Education.

A site-specific geotechnical investigation should be performed to evaluate foundation conditions and other geotechnical factors, and to make a formal determination as to whether hazards exist at the Site related to expansive, consolidation-prone or collapsible soils, seismically induced settlement, shallow groundwater, liquefaction and lateral spread landslides. Formal characterization of the soils would also provide the basis for comparative analyses and selection of the most appropriate near-source factors, as required from the California Building Code and completion of the Simple Prescribed Parameter Values (SPPV) or alternative seismic hazard analysis (Probabilistic or Deterministic Seismic Hazard Analysis [PSHA/DSHA]).

The completion of the Water Pipeline Safety Analysis and Pipeline Safety Hazard Analysis reports under separate covers will provide further information on the suitability of the Site for the proposed high school in regard to potential environmental hazards that have not been ruled out by this report.

4. *Conclusions and Recommendations*

This page intentionally left blank.



5. *General Conditions*

The Planning Center|DC&E has performed a review of readily available literature describing potential geologic and environmental hazards in the project area. We have observed only the exposed surface conditions based on a reconnaissance of the Site. These conditions do not necessarily represent the subsurface geologic/geotechnical conditions at the project Site. In view of the general geology of the project area and the lack of a formal geotechnical study, the possibility of different subsurface conditions cannot be discounted. Professional judgments and conclusions presented in this report are based on The Planning Center|DC&E's understanding of the project and the assumption that the geologic/geotechnical and environmental conditions do not deviate appreciably from those disclosed by the literature review and evaluation. All geologic hazard conditions and conclusions of this report should be confirmed during the site-specific engineering geology/geotechnical investigation required by the Division of the State Architect (DSA).

5. *General Conditions*

This page intentionally left blank.



6. *References*

1. Allen, D. R., 1973, Subsidence Rebound and Surface Strain associated with Oil Producing Operation, Long Beach, California, *in* Geology, Seismicity, and Environmental Impact, Association of Engineering Geologists, Special Publication.
2. California Department of Conservation, Division of Oil, Gas and Geothermal Resources, 2005. Oil and Gas Field Reference Map, Wildcat Map W1-6, accessed by The Planning Center|DC&E on March 12, 2013 at <ftp://ftp.consrv.ca.gov/pub/oil/maps/dist1/w1-6/Mapw1-6.pdf>.
3. California Department of Conservation, Division of Oil, Gas and Geothermal Resources, 2010. Oil and Gas Field Reference Map, Wildcat Map W1-4, accessed by The Planning Center|DC&E on March 12, 2013 at <ftp://ftp.consrv.ca.gov/pub/oil/maps/dist1/w1-4/MapW1-4.pdf>.
4. California Department of Education, School Facilities Planning Division, 2000. School Site Selection and Approval Guide.
5. California Department of Transportation, Division of Aeronautics, 2008. Public Use Airports and Military Airfields Map.
6. California Department of Water Resources (CDWR), 1967. Progress Report on Ground Water Geology of the Coastal Plain of Orange County, July 1967.
7. California Division of Mines and Geology (CDMG), 1997. Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117.
8. California Division of Mines and Geology (CDMG), 2000a. Seismic Hazard Zone Report for the El Toro 7.5-minute Quadrangle, Orange County, California. Seismic Hazard Zone Report 2000-013.
9. California Division of Mines and Geology (CDMG), 2000b. Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region, CD 2000-003.
10. California Division of Mines and Geology (CDMG), 2001. State of California Seismic Hazard Zones, El Toro Quadrangle Official Map, Released January 17, 2001, scale 1:24,000.
11. California Office of Emergency Services (OES), 2007. Registered Dam Inundation Images and Boundary Files in ArcView Format, Version DVD-2, CD-ROM.
12. Cao, T., W. A. Bryant, B. R. Rowshandel, D. Branum and C. J. Wills, 2003, The revised 2002 California probabilistic seismic hazard maps, California Geological Survey (posted as .pdf files on the CGS website).
13. City of Irvine General Plan, 2012.
14. County of Orange General Plan, 2004.
15. Davis, T. L., J. Namson and R. F. Yerkes, 1989. A Cross Section of the Los Angeles Area: Seismically Active Fold and Thrust Belt, the 1987 Whittier Narrows Earthquake, and Earthquake Hazard, *Journal of Geophysical Research*, vol. 94, no. B7, July, p. 9644-9664.
16. Earth Tech, Inc., 2003. Final Environmental Baseline Survey Former Marine Corps Air Station El Toro, California, September.
17. EDR Radius Map Report, Great Park ES, Irvine, CA 92618, August 9, 2012.

6. References

18. Federal Emergency Management Agency (FEMA), 2009. Flood Map website, accessed on February 14, 2013 by The Planning Center|DC&E at <http://map1.msc.fema.gov/>.
19. Field, E. H., 2001. Earthquake Ground-Motion Amplification in Southern California, United States Geological Survey Open-File Report 01-164, at <http://pubs.usgs.gov/of/2001/of01-164/of01-164.pdf>.
20. Grant, L. B., K. J. Mueller, E. M. Gath, H. Cheng, R. L. Edwards, R. Munro and G. L. Kennedy, 1999. Late Quaternary Uplift and Earthquake Potential of the San Joaquin Hills, southern Los Angeles Basin, California, *Geology*, v. 27, no. 11, p. 1031-1034.
21. Hart, E.W., and W. A. Bryant, 2007. Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps, California Division of Mines and Geology Special Publication 42, Interim Revision.
22. Jennings, C. W., 1994. Fault activity map of California and adjacent areas with locations and ages of recent volcanic eruptions: California Division of Mines and Geology, California Geologic Data Map Series. Map No. 6, Scale 1:750,000.
23. Jennings, C. W., and W. A. Bryant, 2010. 2010 Fault Activity Map of California, California Geological Survey Geologic Data Map No. 6, accessed online by The Planning Center|DC&E on April 12, 2012 at <http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html>.
24. Lofgren, B. E., 1971. Estimated subsidence in the Chino-Riverside-Bunker Hill-Yucaipa areas in southern California for a postulated water level lowering, 1965-2015: U.S. Geological Survey Water Resources Division Open-File Report 71C.
25. Morton, D. M., 2004. Preliminary geologic map of the Santa Ana 10' X 30' quadrangle, southern California, United States Geological Survey Open-File Report 99-172, scale 1:100,000.
26. Rockwell, T. K., R. S. McElwain, D. E. Millman, and D. L. Lamar, 1986. Recurrent Late Holocene Faulting on the Glen Ivy North Strand of the Elsinore Fault at Glen Ivy Marsh, *in* Ehlig, P. L., (Compiler), *Neotectonics and Faulting in Southern California*, Guidebook and Volume, 82nd Annual Meeting, Cordilleran Section, Geological Society of America, p. 129-140.
27. South Coast Air Quality Management District (SCAQMD), 2013. Facility Information Detail (FIND) website accessed by The Planning Center|DC&E on March 12, 2013 at <http://www.aqmd.gov/webappl/fim/prog/search.aspx>.
28. Southern California Earthquake Center (SCEC), 1999. Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Liquefaction Hazards in California.
29. The Planning Center|DC&E, 2012. Site visit performed by Mr. Michael Watson on November 15, 2012.
30. Underground Service Alert (USA) DigAlert website, 2012. Accessed by The Planning Center|DC&E, http://ocarsa.digalert.org/OCARS/apps/web_login.asp.
31. United States Department of Agriculture (USDA), 1978. Soil Survey of Orange County and Western Part of Riverside County, California.



6. *References*

32. United States Department of the Navy, 2004. Final Finding of Suitability to Transfer Parcel IV and Portions of Parcels I, II and III, Former Marine Corps Air Station, El Toro, California. July 2004.
33. United States Environmental Protection Agency (USEPA), 2007. Website accessed by The Planning Center|DC&E on April 20, 2012, <http://www.epa.gov/radon/states/california.html>.
34. United States Geological Survey (USGS), 1997. 7.5' Topographic Series, El Toro, California Quadrangle Map, scale 1:24,000.
35. United States Geological Survey (USGS), 2008. Interactive Deaggregation website accessed by The Planning Center|DC&E on February 7, 2013 at <http://eqint.cr.usgs.gov/deaggint/2008/index.php>.
36. Van Gosen, B. S. and J. P. Clinkenbeard, 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California, USGS Open-File Report 2011-1188, scale 1:990,000.
37. Yerkes, R. F., T. H. McCulloch, J. E. Schoellhamer, and J. G. Vedder, 1965. Geology of the Los Angeles Basin, California – An Introduction, United States Geological Survey Professional Paper 420-A.

6. *References*

This page intentionally left blank.



TABLE 1

Summary of Faults Considered Significant to the Proposed Irvine USD K8 School - Great Park Site
Intersection of D Street and Eighth Street
Irvine Unified School District
Irvine, California

Abbreviated Fault Name	Approximate Distance in Miles (Kilometers)	Maximum Magnitude (Mmax)	Style	Estimated Slip Rate (mm/yr)
San Joaquin Hills Blind Thrust	4.0 (6.4)	6.6	Reverse dip-slip	0.5 (\pm 0.2)
Whittier	11.4 (18.3)	6.8	Right-lateral reverse oblique-slip	2.5 (\pm 1.0)
Elsinore - Glen Ivy segment	11.6 (18.6)	6.8	Right-lateral strike-slip	5.0 (\pm 2.0)
Chino-Central Avenue (Elsinore)	12.7 (20.4)	6.7	Right-lateral reverse oblique-slip	1.0 (\pm 1.0)
Newport-Inglewood (L. A. Basin)	13.0 (20.9)	7.1	Right-lateral strike-slip	1.0 (\pm 0.5)
Newport-Inglewood - Offshore segment	13.2 (21.2)	7.1	Right-lateral strike-slip	1.5 (\pm 0.5)
Puente Hills Blind Thrust	16.4 (26.4)	7.1	Reverse dip-slip	0.7 (\pm 0.4)
Elsinore - Temecula	24.1 (38.8)	6.8	Right-lateral strike-slip	5.0 (\pm 2.0)
San Jose	24.4 (39.3)	6.4	Left-lateral reverse oblique-slip	0.5 (\pm 0.5)
Palos Verdes	24.8 (40.0)	7.3	Right-lateral strike-slip	3.0 (\pm 1.0)

Source:

California Geological Survey, 2003. The revised 2002 California probabilistic seismic hazard maps.

1. Introduction

Site Location



--- Existing PA 30 and PA 51 Boundary

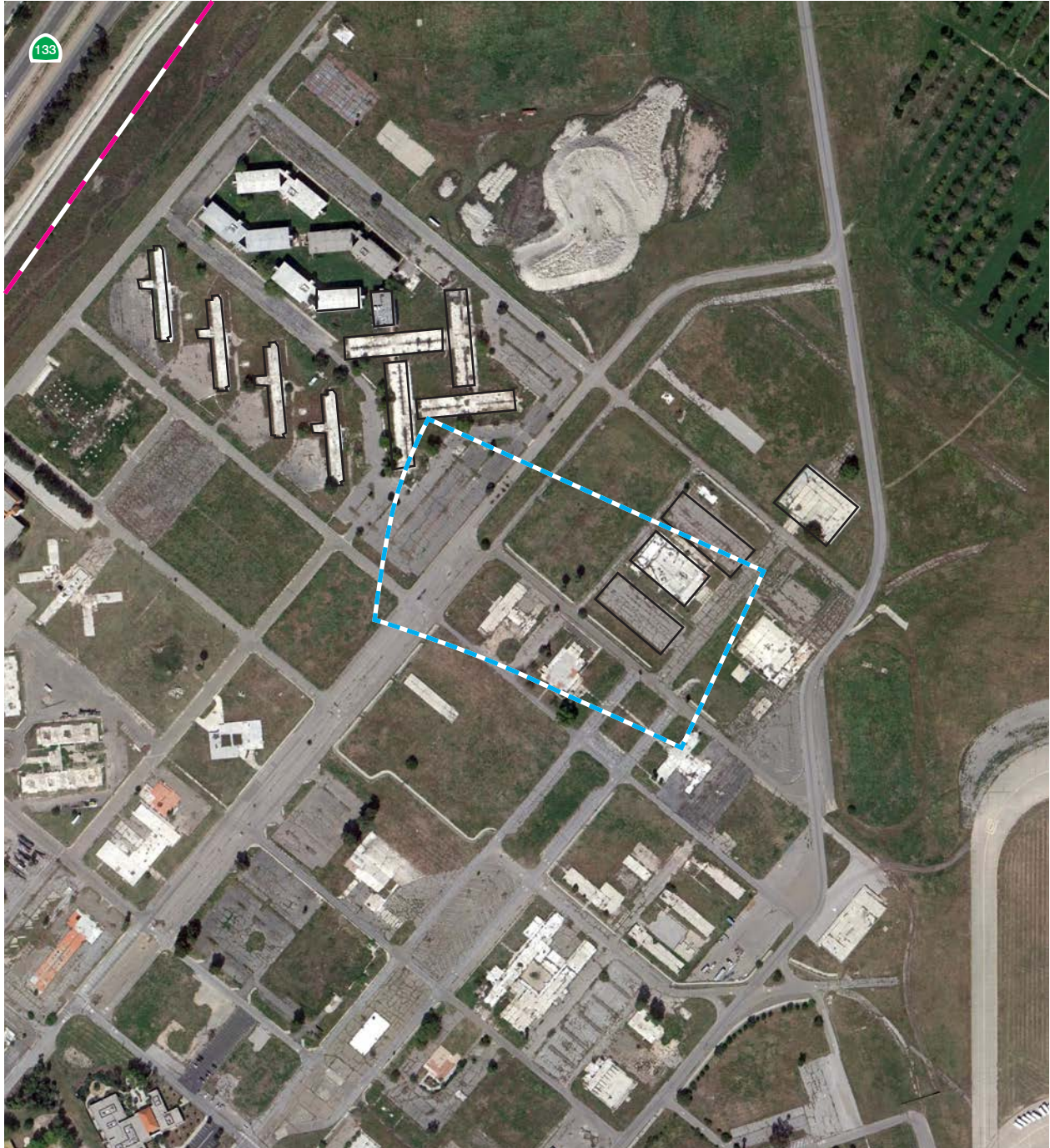
— K8 School Boundary

0 6,000
Scale (Feet)



1. Introduction

Site Conditions



--- Existing PA 30 and PA 51 Boundary

--- K8 School Boundary

0 500
Scale (Feet)

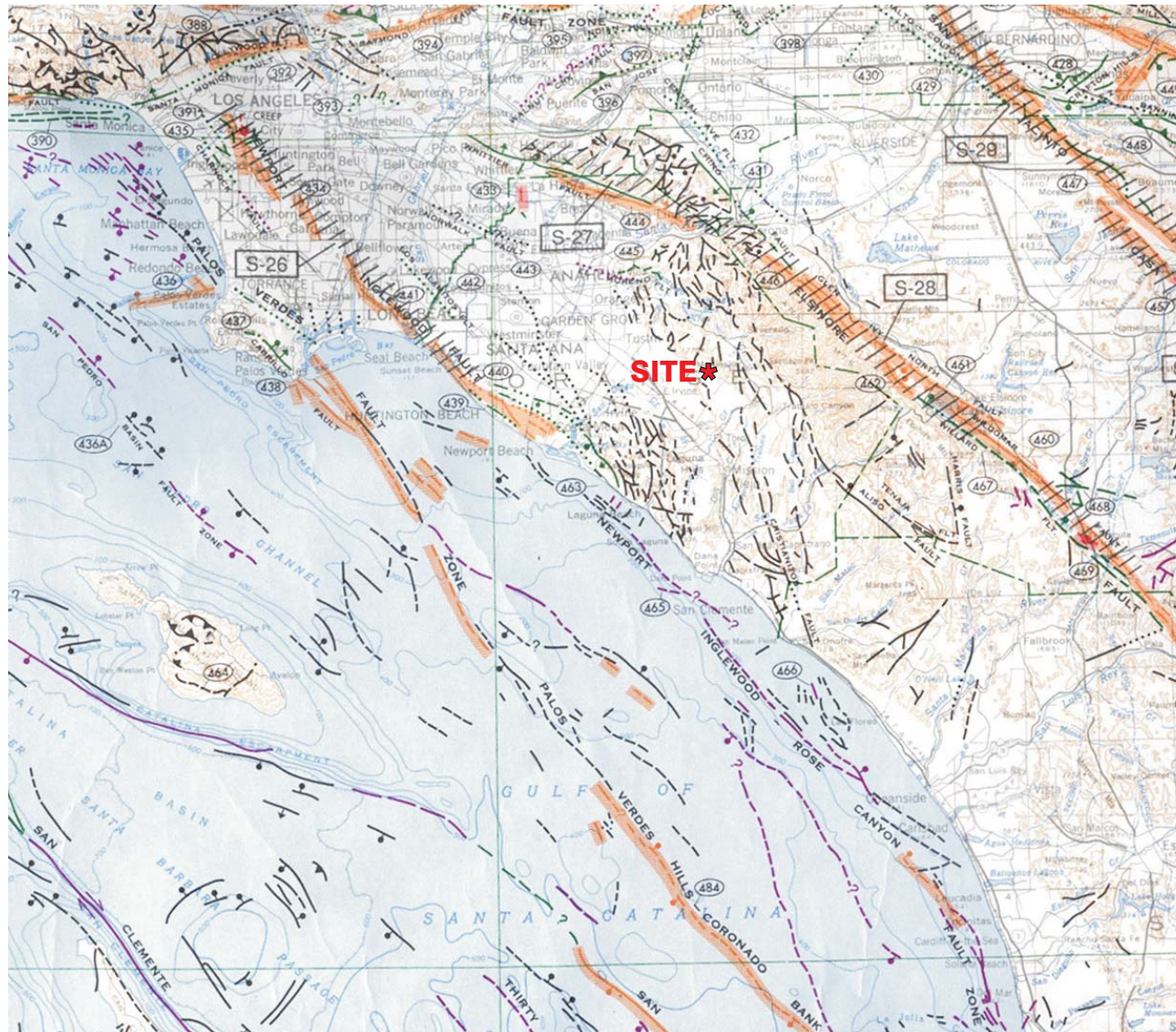


Source: Google Earth Pro 2011

Heritage Fields Great Park K8 School Site

The Planning Center | DC&E • **Figure 2**

Fault Map



SPECIAL NOTATIONS

A triangle to the right or left of the date indicates termination point of observed surface displacement.

Date bracketed by triangles indicates local fault break.

No triangle by date indicates an intermediate point along fault break.

Dot on fault indicates location where fault creep slippage has been observed and recorded.

Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

Holocene fault displacement (during past 10,000 years) without historic record. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, shutter ridges, and triangular faceted spurs. Recency of faulting offshore is based on the interpreted age of the youngest strata displaced by faulting. Pale orange band added to emphasize location of Holocene fault displacement.

Late Quaternary fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.

Quaternary fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age. Unnumbered Quaternary faults were based on Fault Map of California, 1975. See Bulletin 201, Appendix D for source data.

Late Cenozoic faults within the Sierra Nevada including, but not restricted to, the Foothills fault system. Faults show stratigraphic and/or geomorphic evidence for displacement of late Miocene and Pliocene deposits. By analogy, late Cenozoic faults in this system that have been investigated in detail may have been active in Quaternary time. (Data from PG&E, 1993).

Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissance nature, or was not done with the object of dating fault displacements. Faults in this category are not necessarily inactive.

Fault segment associated with a significant linear trend of accurately located earthquake epicenters (magnitude 0.2 or greater). Generally aligned along strike slip faults having Quaternary displacement, but not necessarily with historic surface rupture. Lack of seismic activity along any fault is no indication that the fault may not be active in the future (e.g. San Andreas fault north of San Francisco). Epicenter data are derived from closely spaced seismic stations and include either continuing microseismicity or aftershocks associated with relatively large earthquakes.

NOT TO SCALE



Source: Jennings 1994

Proposed Irvine USD K8 School - Great Park

The Planning Center | DC&E • Figure 4

Appendices

Appendix A *Glossary of Terms*

Appendices

This page intentionally left blank



GLOSSARY OF TERMS

Alluvium: A general term for the sediments laid down in riverbeds, floodplains and fans at the foot of mountain slopes during relatively recent geologic times.

Consolidation: Adjustment of a saturated soil in response to increased loads; involves squeezing of water from the pores and a decrease in void ratio.

Dam inundation: The release of floodwaters to downstream areas caused by failure of a dam.

Fault: An earth fracture or zone of fracture along which the rocks have been differentially displaced.

High-pressure pipelines: A pipeline with a maximum allowable operating pressure of or greater than 80 pounds per square inch.

Hydro-collapse: A phenomenon in which a soil, when dry, is able to withstand high overburden stresses, but collapses upon saturation.

Liquefaction: A process by which a water-saturated sand loses coherence when shaken. Involved in the collapse of sand grains into intergranular voids, which induces an increase in pore pressure and loss of strength. This loss of strength leads to a quicksand condition in which objects can either sink or float depending on their density.

Overdraft: A condition of a ground water basin that exists when the quantity of water withdrawn and consumptively used exceeds the amount of water recharging the basin over a period of time.

Seiche: An earthquake-generated resonant oscillation of water.

Seismic settlement: A densification of soil caused by seismic ground shaking.

Sheet flooding: A broad expanse of moving, storm-borne water that spreads as a thin, continuous, relatively uniform film over a large area for a short distance and duration.

Soil Stability: A term describing how uniformly solid the structure of a soil is in response to various stresses and conditions.

Subsidence: The lowering of the land-surface elevation from changes that take place underground.

Tsunami: A phenomenon consisting of a series of long-period sea waves generated when water is rapidly displaced on a massive scale.

Appendices

This page intentionally left blank



Appendices

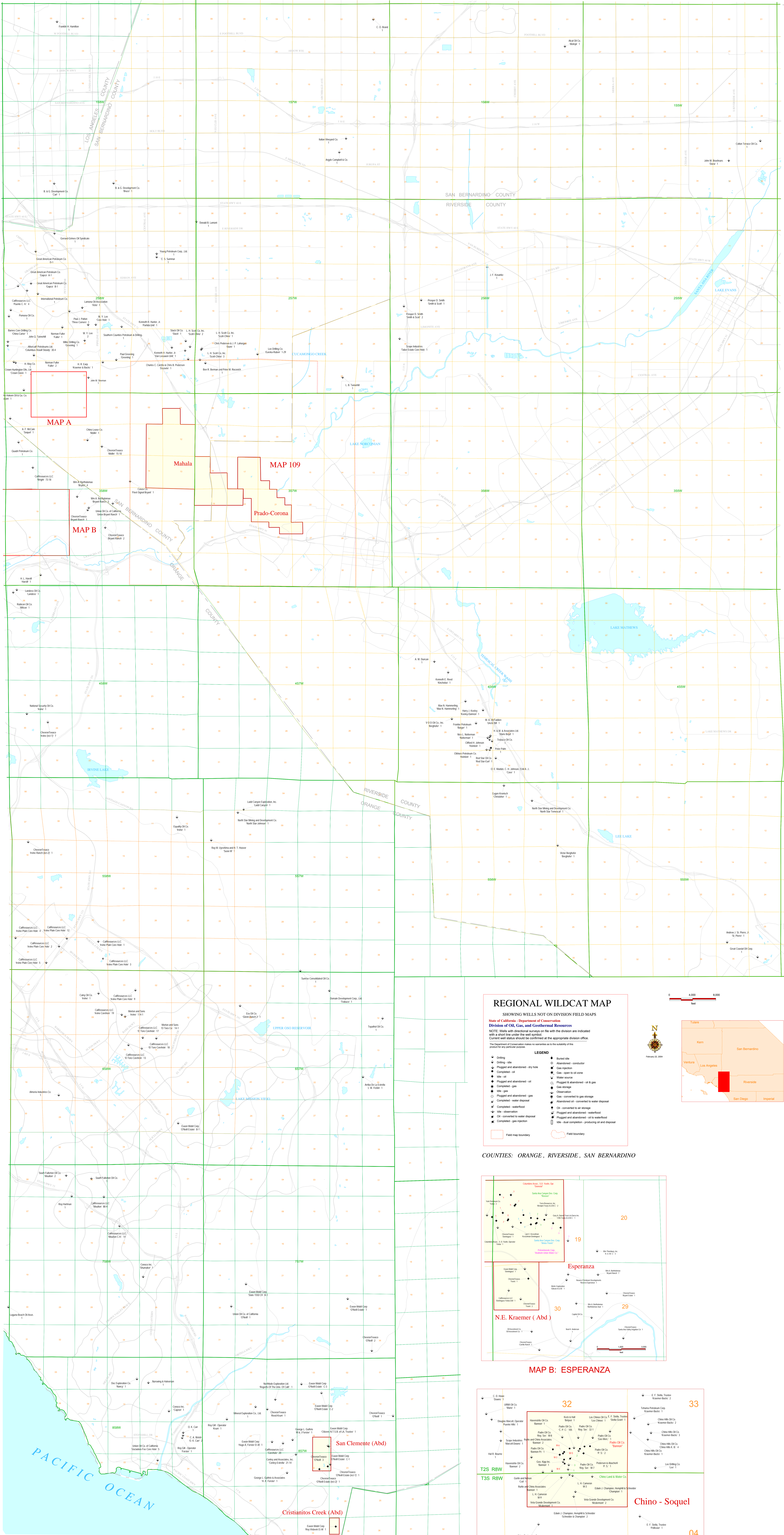
Appendix B

Oil and Gas Information

Appendices

This page intentionally left blank





Appendices

Appendix C *Agency Letters*

Appendices

This page intentionally left blank



Design Lookup

County Place Page or Grids [Exit](#)

Design Lookup on 10/04/12 01:27 PM
County: ORANGE Place: IRVINE
Grids: 0861E05 0861E06 0861F05 0861F06

ATTD SOUTH
AT&T - DISTRIBUTION
JANICE COMASKEY
870 N MCCARTHY BLVD RM 1 213
MILPITAS, CA 95035

IRW01
IRVINE RANCH WTR
RANDY SUNBERG
15600 SAND CANYON AVE
IRVINE, CA 926197000
(949) 453-5551
SUNDBERG@IRWD.COM

SCG2XK
SC GAS - ALISO VIEJO
STEFAN FABER
1919 STATE COLLEGE BLVD
ANAHEIM, CA 928066114
(714) 634-3217
sfaber@semprautilities.com

UACORA
UTIL REQUEST FOR AIRTOUCH CELLULAR
MATTHEW KANG
10640 SEPULVEDA BLVD., STE. 1
MISSION HILLS, CA 91345
(818) 898-2352
MATT.KANG@CABLEENG.COM

COXRSM
COX COMMUNICATIONS
JOSEPH CARRILLO
29947 AVENIDA DE LAS BANDERAS
RANCHO SANTA MARGARITA, CA 92688
(949) 546-2752
joseph.carrillo@cox.com

PARADYNE
UNITED PARADYNE
DAVID GLADDEN
3171 N GAFFEY
SAN PEDRO, CA 90732
(310) 832-3144
dgladden@unitedparadyne.com

TIC01
THE IRVINE COMPANY
PETER CHONGALA
11501 JEFFREY RD
IRVINE, CA 926020503
(949) 936-8092
pchangala@irvinecompany.com

USCE04
UTIL REQUEST FOR SC EDISON DIST-SADDLEBAC
ATTN: MAP REQUEST BLDG D
SANTA ANA, CA 92711-198
(714) 796-9999
MAPREQUESTS@SCE.COM



October 15, 2012

Stefan Faber
Southern California Gas Company
1919 State College Boulevard
Anaheim, CA 92806

Subject: Information Request (ISD-28 and ISD-29)

Dear Mr. Faber:

The Planning Center|DC&E requests information regarding high pressure (over 80 psig) pipelines in the vicinity (approximately 1,500-foot radii) of the following sites:

- Proposed Heritage Fields Great Park K8 School Site
Intersection of C Street and 7th Street in unincorporated Orange County, California
- Proposed Heritage Fields Great Park High School 5 Site
Intersection of Marine Way and Perimeter Road in unincorporated Orange County, California

The proposed K8 and high school sites are located on the former Marine Corps Air Station El Toro in the Orange County Thomas Guide 2005, on page 861, grids C3 and C4 and grids E5, E6, F5 and F6, respectively (Please see attached maps for exact locations)

The client for this project is:

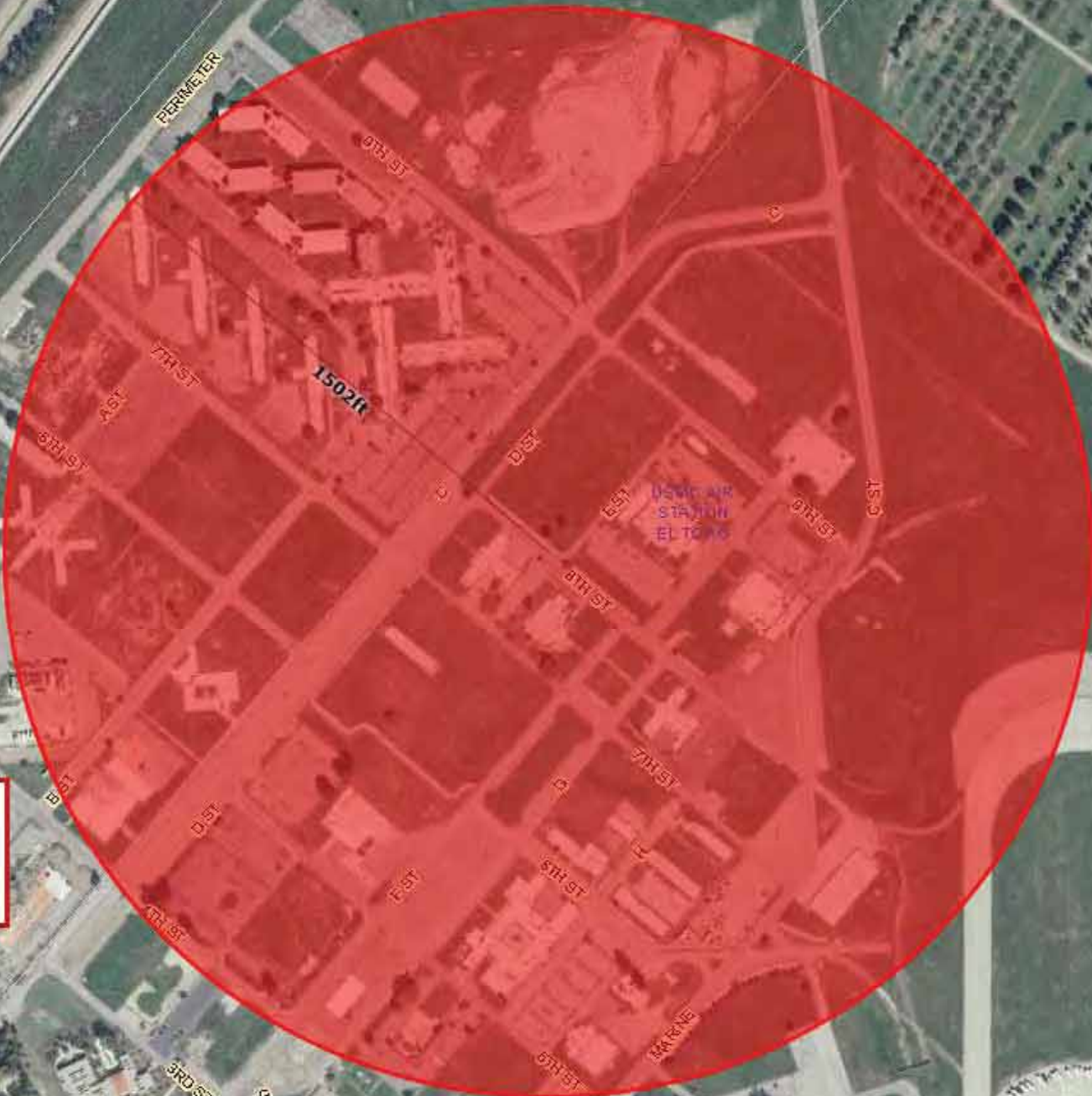
Irvine Unified School District
100 Nightmist
Irvine, CA 92618

Please contact me at (909) 989-4449 or by email at mwatson@planningcenter.com with any questions you may have. Thank you for your time.

Sincerely,

THE PLANNING CENTER|DC&E

Michael Watson, PG
Associate Geologist



The Gas Co. facilities are approximate locations only. Field verification is required. The contractor must call "Underground Service Alert" @ 811 two working days in advance of work.

The Gas Co. facilities are approximate locations only. Field verification is required. The contractor must call "Underground Service Alert" @ 811 two working days in advance of work.

B-46

65



October 15, 2012

David Gladden
United Paradyne
3171 N. Gaffey Street
San Pedro, CA 90732

Subject: Information Request (ISD-28 and ISD-29)

Dear Mr. Gladden:

The Planning Center|DC&E requests information regarding pipelines in the vicinity (approximately 1,500-foot radii) of the following sites:

- Proposed Heritage Fields Great Park K8 School Site
Intersection of C Street and 7th Street in unincorporated Orange County, California
- Proposed Heritage Fields Great Park High School 5 Site
Intersection of Marine Way and Perimeter Road in unincorporated Orange County, California

The proposed K8 and high school sites are located on the former Marine Corps Air Station El Toro in the Orange County Thomas Guide 2005, on page 861, grids C3 and C4 and grids E5, E6, F5 and F6, respectively (Please see attached maps for exact locations)

The client for this project is:

Irvine Unified School District
100 Nightmist
Irvine, CA 92618

Please contact me at (909) 989-4449 or by email at mwatson@planningcenter.com with any questions you may have. Thank you for your time.

Sincerely,

THE PLANNING CENTER|DC&E

Michael Watson, PG
Associate Geologist

Mike Watson

From: Mike Watson
Sent: Thursday, February 14, 2013 12:24 PM
To: Mike Watson
Subject: RE: United Paradyne

Fermin called back and said he had faxed a response saying that our sites are more than 1,500 feet from the pipeline.

Thanks,

Michael Watson, PG
Associate Geologist, PG 8177

THE PLANNING CENTER | DC&E
2850 Inland Empire Boulevard Suite B | Ontario CA 91764
909.989.4449 | 909.989.4447 (f) | 909.579.9161 (m)
mwatson@planningcenter.com
www.planningcenter.com

 Think environment before printing.

From: Mike Watson
Sent: Thursday, February 14, 2013 11:54 AM
To: Mike Watson
Subject: United Paradyne

I called Fermin Rodriguez of United Paradyne at 1150 on 2/14/13 for the Great Park HS & K8 schools and left a voicemail. His number is (562) 253-5772.

Michael Watson, PG
Associate Geologist, PG 8177

THE PLANNING CENTER | DC&E
2850 Inland Empire Boulevard Suite B | Ontario CA 91764
909.989.4449 | 909.989.4447 (f) | 909.579.9161 (m)
mwatson@planningcenter.com
www.planningcenter.com

 Think environment before printing.



October 15, 2012

Randy Sunburg
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92619

Subject: Information Request (ISD-28 and ISD-29)

Dear Mr. Sunburg:

The Planning Center|DC&E requests information regarding water pipelines, canals and aqueducts in the vicinity (approximately 1,500-foot radii) of the following sites:

- Proposed Heritage Fields Great Park K8 School Site
Intersection of C Street and 7th Street in unincorporated Orange County, California
- Proposed Heritage Fields Great Park High School 5 Site
Intersection of Marine Way and Perimeter Road in unincorporated Orange County, California

The proposed K8 and high school sites are located on the former Marine Corps Air Station El Toro in the Orange County Thomas Guide 2005, on page 861, grids C3 and C4 and grids E5, E6, F5 and F6, respectively (Please see attached maps for exact locations).

The client for this project is:

Irvine Unified School District
100 Nightmist
Irvine, CA 92618

Please contact me at (909) 989-4449 or by email at mwatson@planningcenter.com with any questions you may have. Thank you for your time.

Sincerely,

THE PLANNING CENTER|DC&E

Michael Watson, PG
Associate Geologist

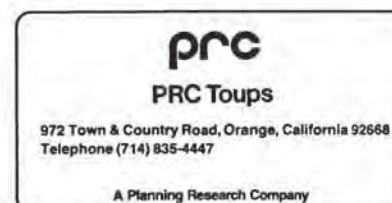
CONSTRUCTION PLANS FOR

IIC-EAST ZONE IV DOMESTIC WATER MAINS

PROJECT NO.'s 11530 & 11535



MAY 1984



APPROVED FOR CONSTRUCTION
IRVINE RANCH WATER DISTRICT
Ronald E. Young
RONALD E. YOUNG, CE 20992
DIRECTOR OF ENGINEERING AND PLANNING

RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

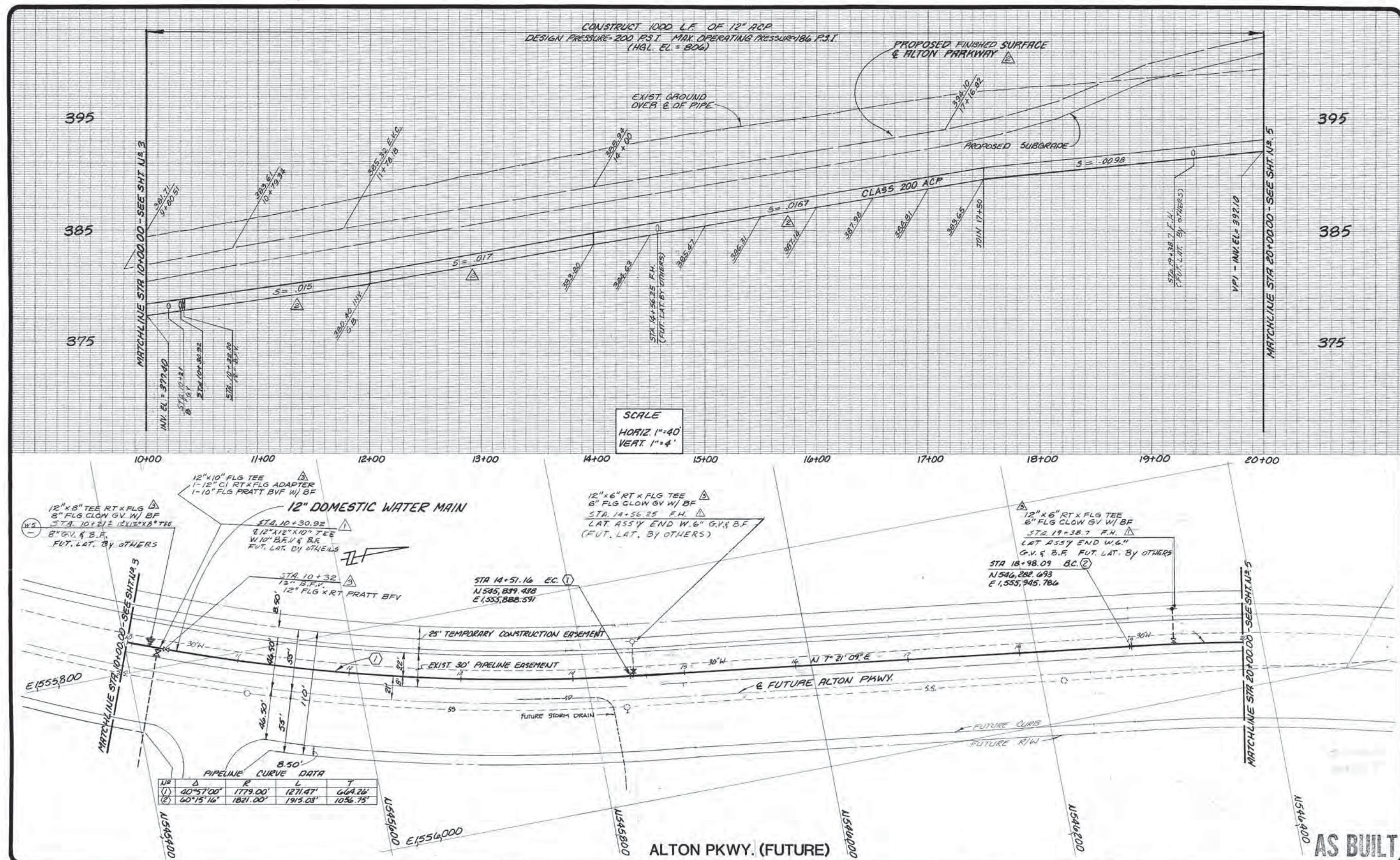
APPROVED BY:
Ronald E. Young 7-31-84
RCE 30190 DATE
CITY ENGINEER, CITY OF IRVINE

AS BUILT

402

402





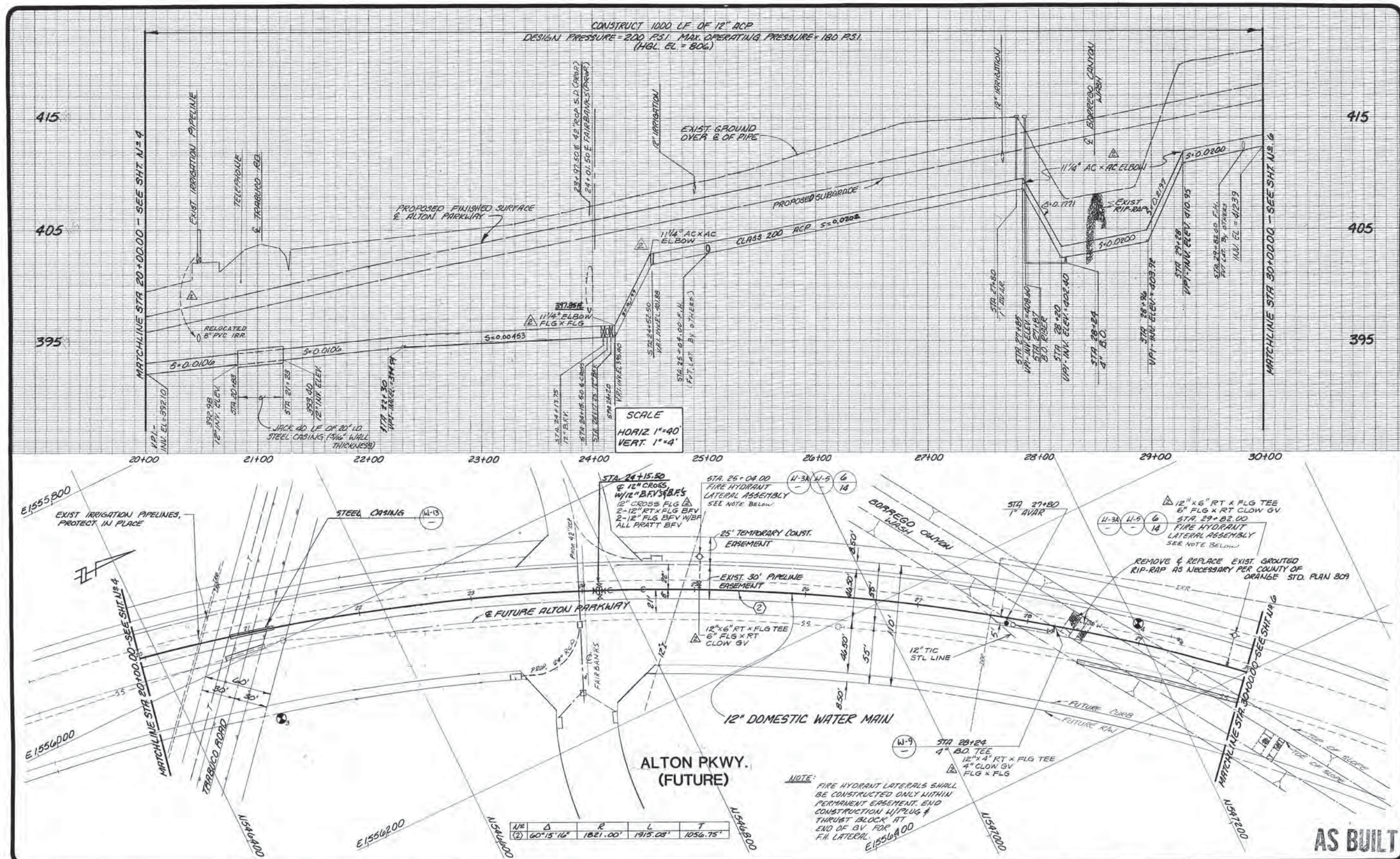
PRC PRC Troups
 972 Town & Country Road, Orange, California 92668
 Telephone (714) 835-4447
 A Planning Research Company

NO.	REVISIONS	BY	DATE
1	DELETE ST. 10+00 TO 10+32 & ADD ST. 10+32	AVN	5-20-84
2	PIPELINE GRADES 10+00 TO 17+50 & ST. 10+32	IAK	9-12-84
3	REV. VALVE STA. TO 10+32 & ADD VALVE INFO.	CD	4-11-85

PREPARED UNDER THE SUPERVISION OF
[Signature]
 RCE 01239
 May 25, 1983
 DATE
 DESIGNED HUNT, OVERDO
 CHECKED HARRISGRAVES
 SCALE AS SHOWN
 DRAWN HOOHMAN
 DATE

IRVINE RANCH WATER DISTRICT
IC - EAST ZONE IV DOMESTIC WATER MAINS
PLAN & PROFILE
ALTON PKWY. STA. 10+00.00 TO STA. 20+00.00

PROJECT NO.
 11530
 SHEET NO.
4
 OF 15 SHEETS



prc PRC Toups

972 Town & Country Road, Orange, California 92668
Telephone (714) 835-4447
A Planning Research Company

NO.	REVISIONS	BY	DATE
1	REDESIGN PROFILE SD. SHIFTED FAIRBANKS	AVH	6-11-84
2	REV. PROFILE ELBOW DESIGNATION & ADD VALVE INFO.	CD	4-11-85

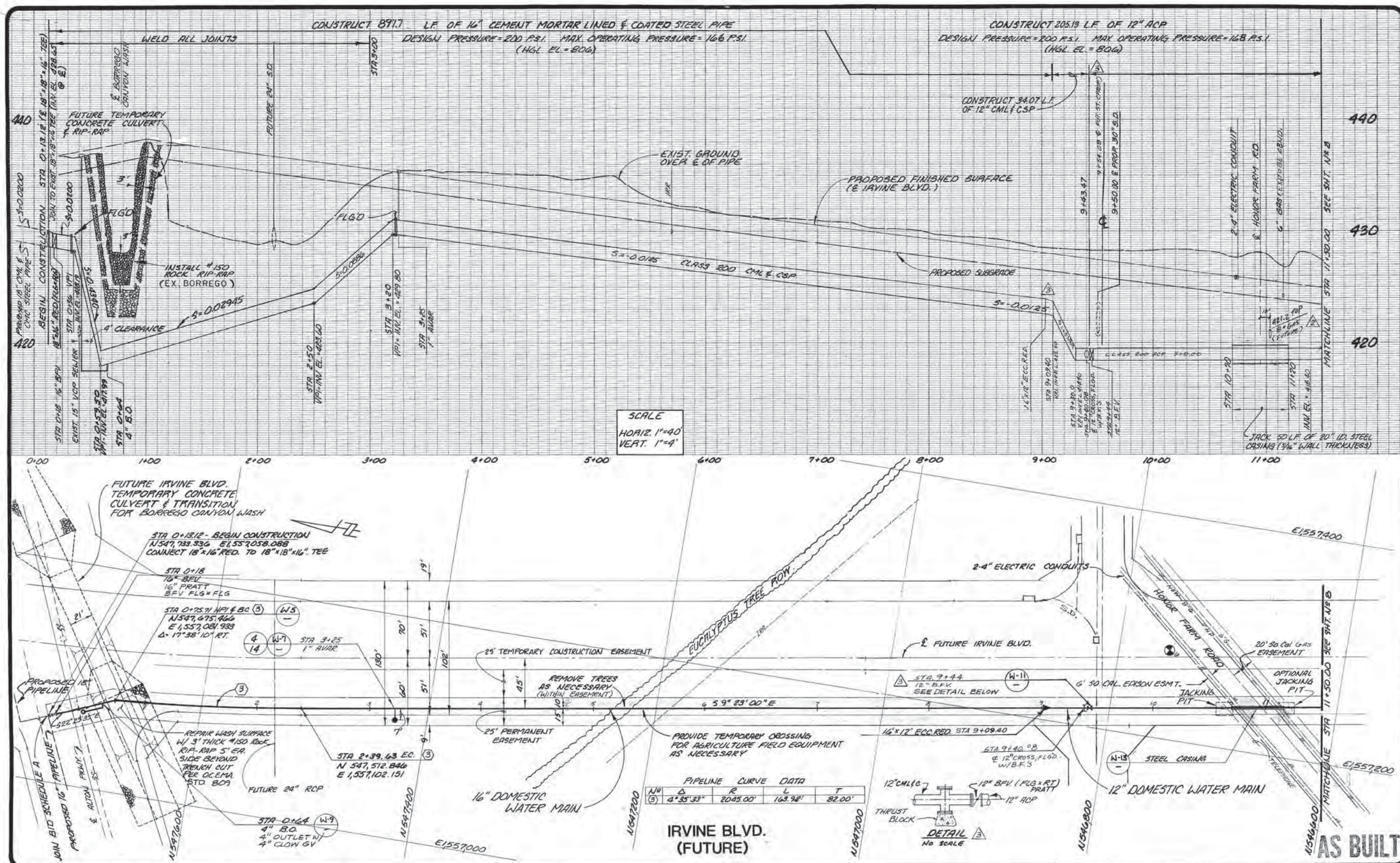
DESIGNED HUNT, OVIEDO	CHECKED HARGREAVES	SCALE AS SHOWN
DRAWN HOOIHAN	DATE	

IRVINE RANCH WATER DISTRICT
IIC - EAST ZONE IV DOMESTIC WATER MAINS

PLAN & PROFILE
ALTON PKWY, STA. 20+00.00 TO STA. 30+00.00

PROJECT NO.
11530
SHEET NO.
5
OF 15 SHEETS

402 PRC Toups JOB NO. 118-008-3



PRC PRC Toups

972 Town & Country Road, Orange, California 92668
Telephone (714) 835-4447
A Planning Research Company

NO.	REVISIONS	BY	DATE
1.	DELETE ST. ADD NEW ST. & S.D.	AH	6-84
2.	ADJUST PROFILE FOR S.D.	AW	8-84
3.	ADD RELOCATED GAS LINE 8" W.P. (NEW)	CD	4-11-85
4.	REV. DETAIL & PROFILE NEAR STA 9+00	RCE	2/23/89

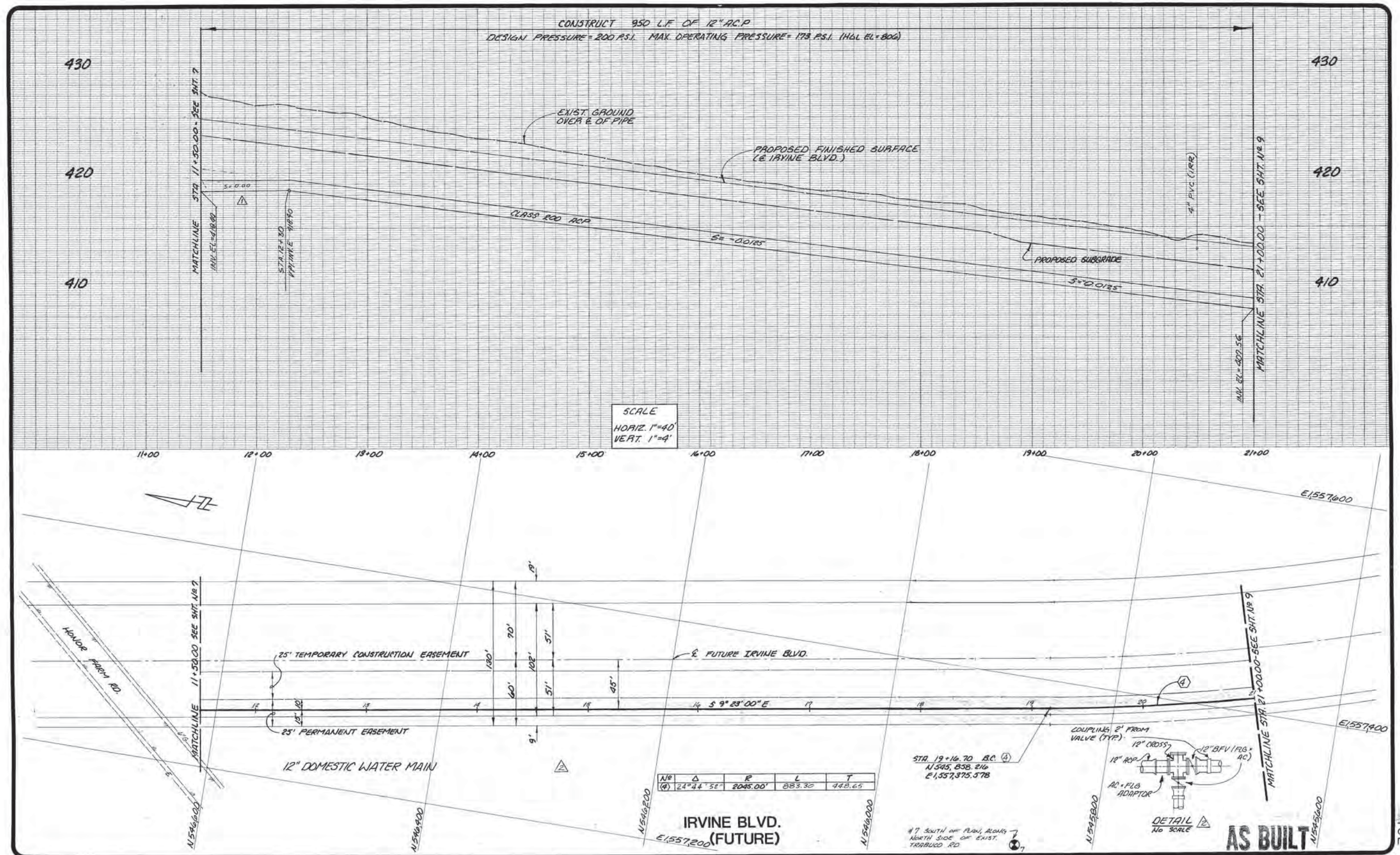
DESIGNED BY: HUNT, COTTERO	CHECKED BY: HARGREAVES	SCALE: AS SHOWN
DRAWN: HOOVER	DATE:	

IRVINE RANCH WATER DISTRICT
IIC - EAST ZONE IV DOMESTIC WATER MAINS

PLAN & PROFILE
IRVINE BLVD. STA. 00+13.12 TO STA. 11+50.00

PROJECT NO.
11530
SHEET NO.
7
OF 15 SHEETS

402 PRC Toups JOB NO. 118-008-3



prc PRC Toups

972 Town & Country Road, Orange, California 92668
 Telephone (714) 835-4447
 A Planning Research Company

NO.	REVISIONS	BY	DATE
1	DELETE FUT. ST. AND LAT. VALVES	AVH	6-84
2	ADJUST PROFILE FOR S.D.		
3	DELETED HYDRANT STA 15+11, REV DETAIL	GD	4-11-85

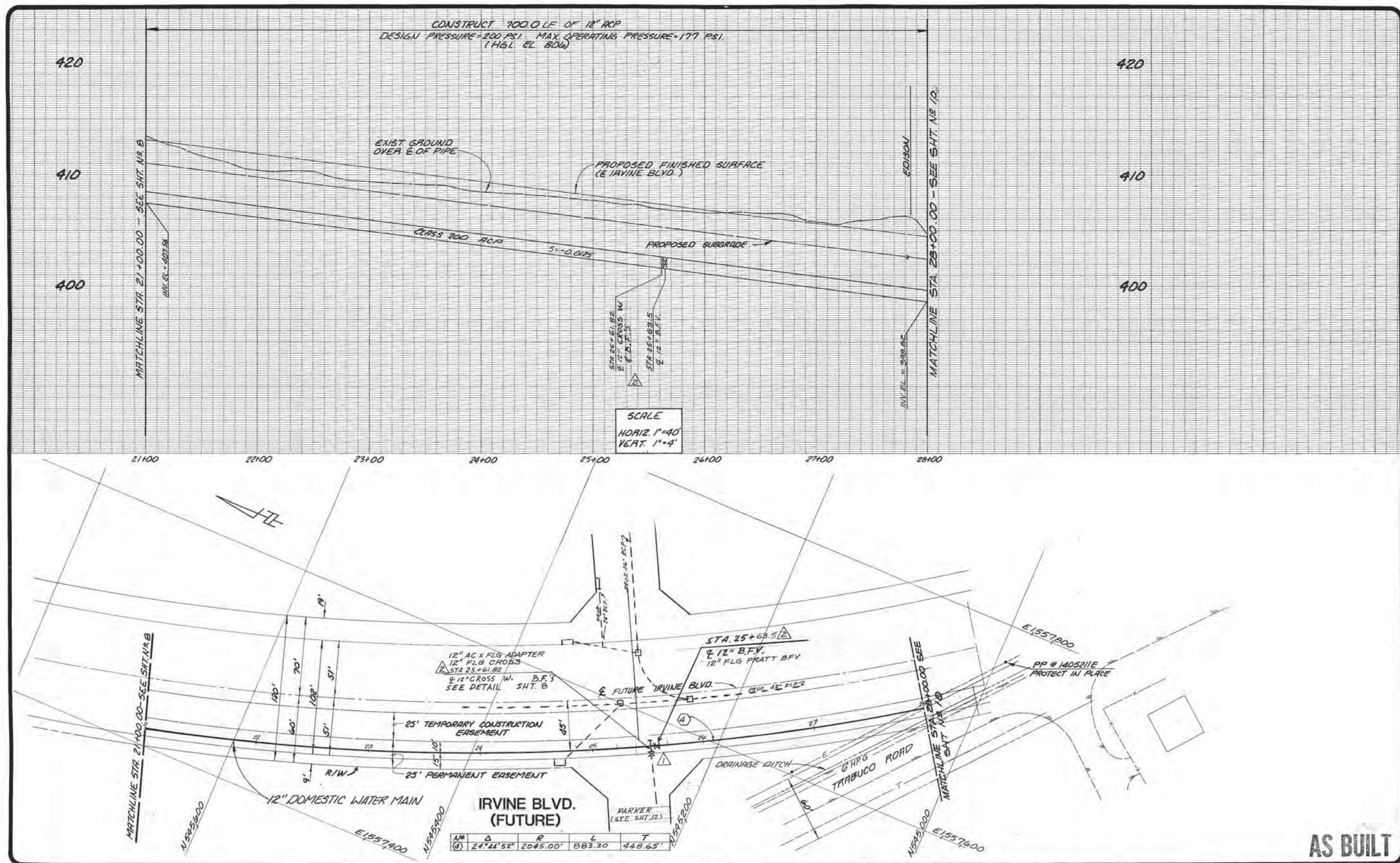
DESIGNED BY: HUNT, OVERDO	CHECKED BY: HARRIS	SCALE: AS SHOWN
DRAWN BY: HOLLAND	DATE:	

IRVINE RANCH WATER DISTRICT
 IIC - EAST ZONE IV DOMESTIC WATER MAINS

PLAN & PROFILE
 IRVINE BLVD. STA. 11+50.00 TO STA. 21+00.00

PROJECT NO.
 11530
 SHEET NO.
8
 OF 15 SHEETS

402 PRC Toups JOB NO. 118-008-3



prc PRC Toups

972 Town & Country Road, Orange, California 92668
Telephone (714) 835-4447
A Planning Research Company

NO.	REVISIONS	BY	DATE
1	ADDED CROSS VALVE FOR PARKER	AVA	6-11-85
2	REV. STATIONS OF CROSS & VALVE @ PARKER	CD	4-11-85

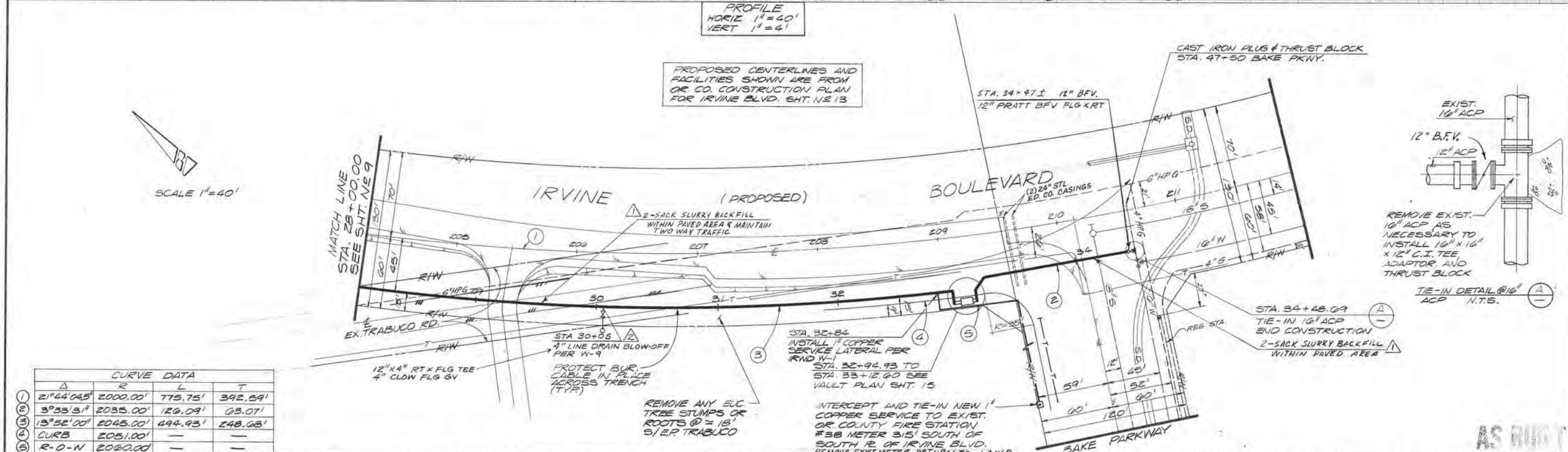
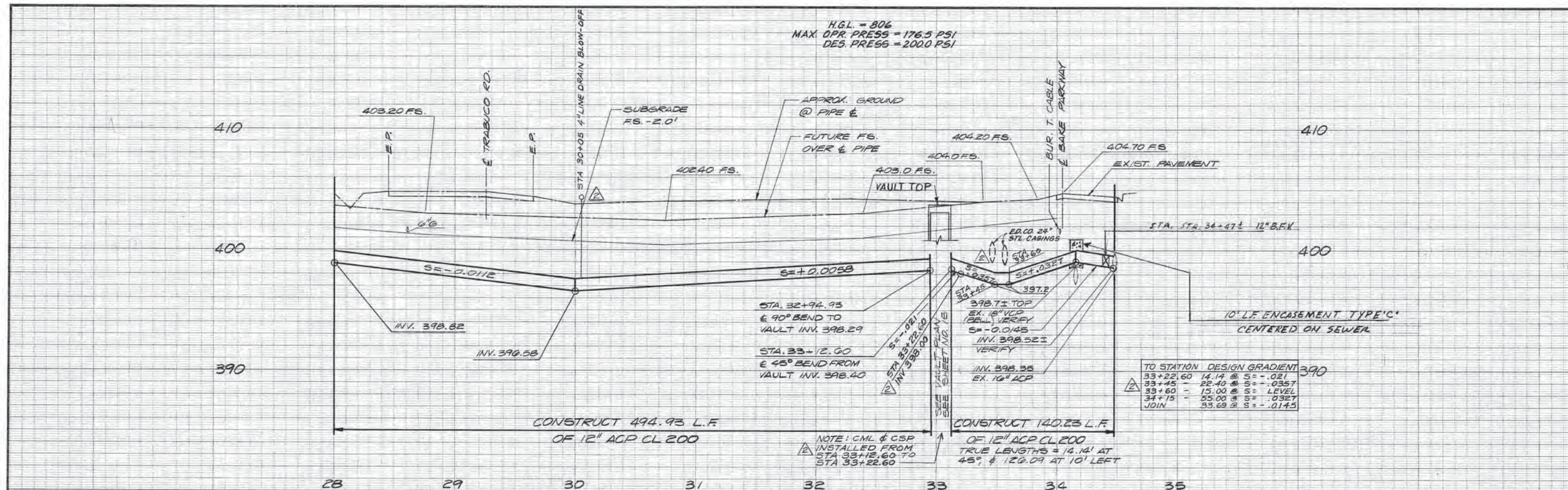
DESIGNED HUNT, OVIDO	CHECKED HARGREAVES	SCALE AS SHOWN
DRAWN HOULIHAN	DATE	

IRVINE RANCH WATER DISTRICT
IIC - EAST ZONE IV DOMESTIC WATER MAINS


PLAN & PROFILE
IRVINE BLVD. STA. 21+00.00 TO STA. 28+00.00

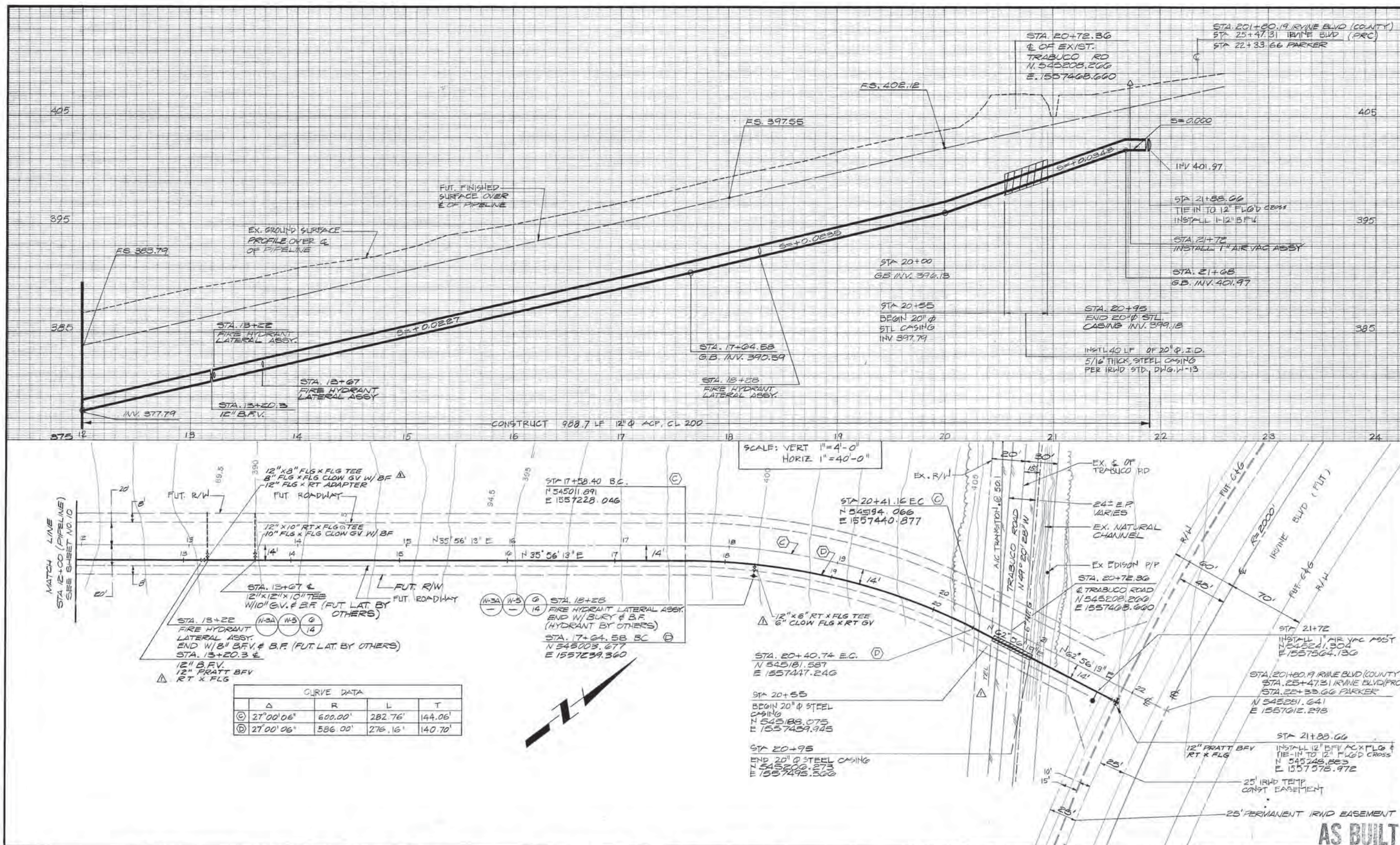
PROJECT NO. 11530
SHEET NO. 9
OF 15 SHEETS

402 PRC Toups JOB NO. 118-008-3

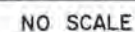


CURVE DATA				
Δ	R	L	T	
1 21°44'04.5"	2000.00'	775.75'	392.59'	
2 3°33'31"	2035.00'	120.09'	03.07'	
3 13°52'00"	2045.00'	494.93'	248.68'	
4 CURB	2051.00'	—	—	
5 R-O-W	2060.00'	—	—	

NO.		DATE	REVISIONS	APPROVED			REMOVE EXIST. METER RETURN TO C.A.W.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
-----	--	------	-----------	----------	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



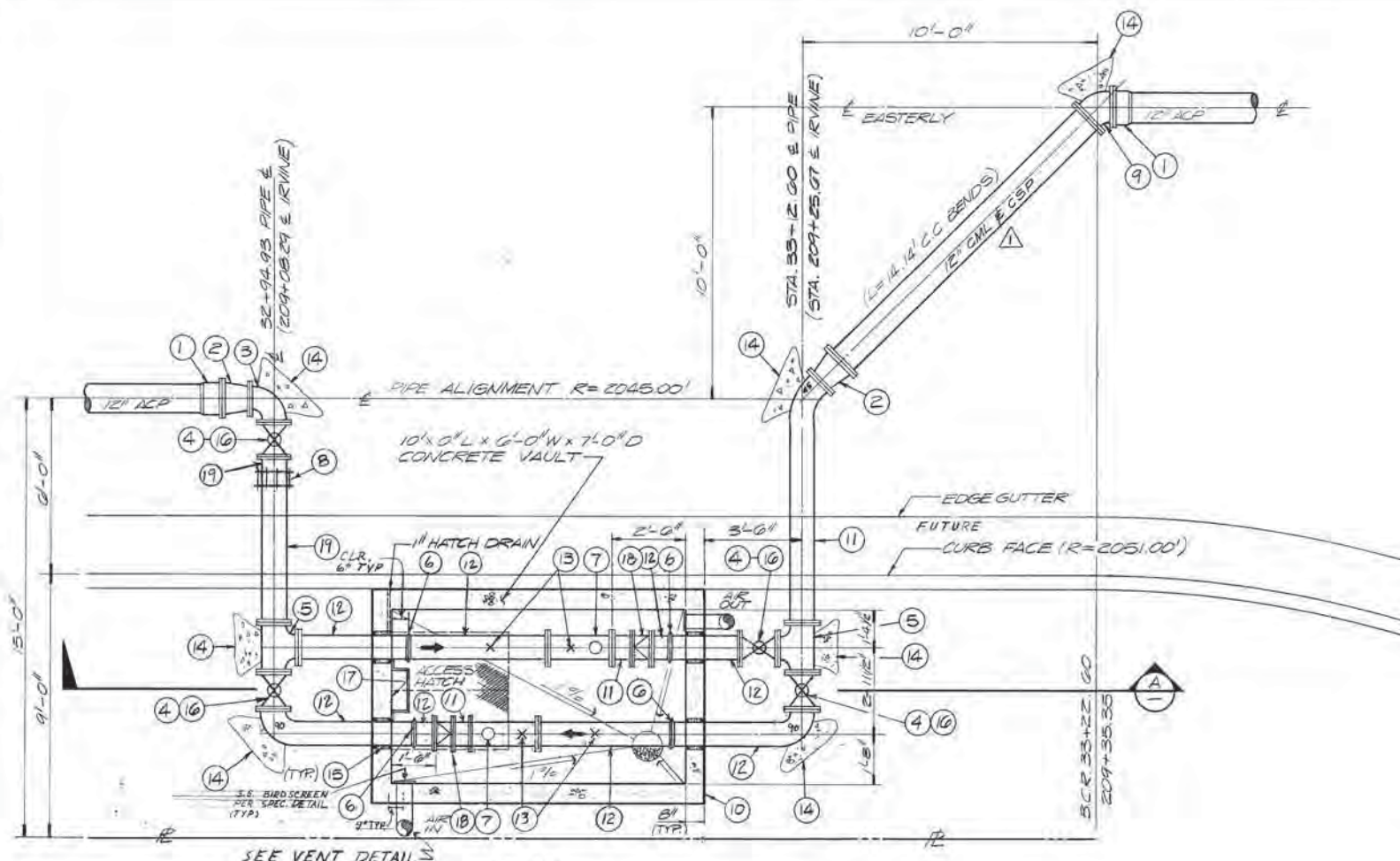
NO.	DATE	REVISIONS	APPROVED	DESIGN	IRVINE RANCH WATER DISTRICT Irvine, Calif.	PROJECT ENGINEER	DATE	IIC-EAST ZONE IV DOMESTIC WATER MAINS	PLAN & PROFILE	SHEET
1	11-12-85	ADD VALVE INFO. & TEL. KING		TRH/HWF		Harold W. Faber	6-14-84		STA. 12+00	12
				DRAWN - ER.		Erwin Garza	6-14-84		TO	OF
				CHECK - HWF		Ronald E. Young	6-18-84	PARKER	STA. 21+88.66	15


$$\frac{2}{-}$$


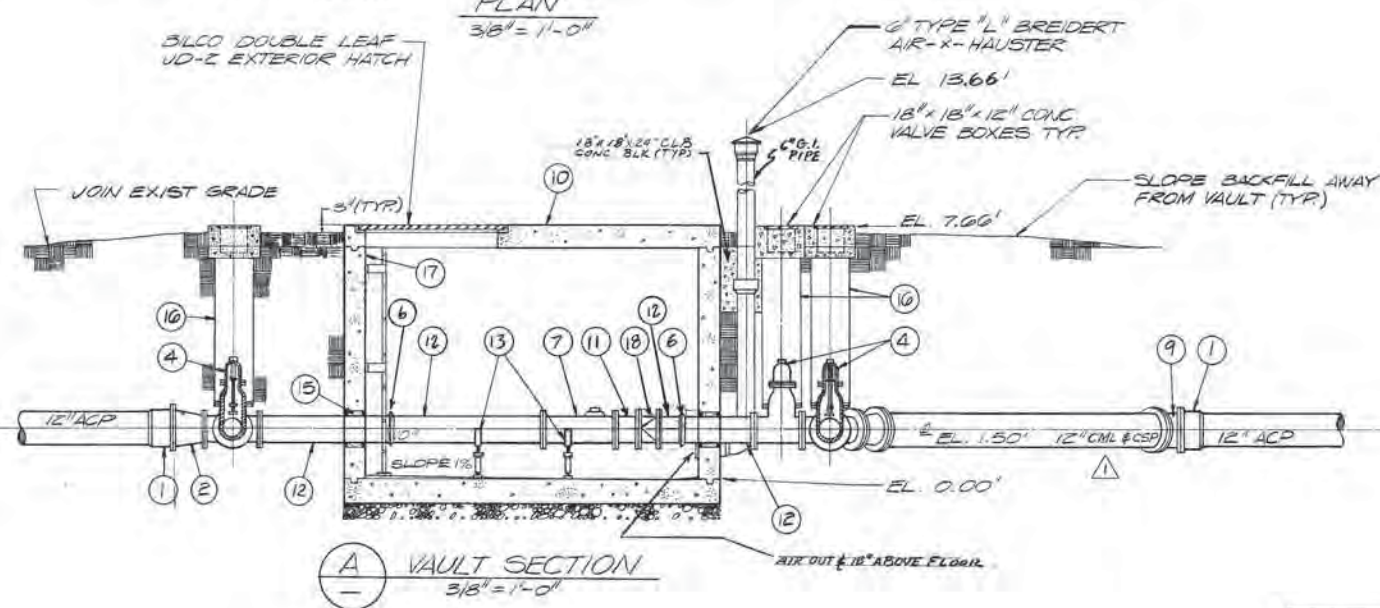
NOTE:
REPAIR LINING AND
COATING W/CEMENT
MORTAR AS SHOWN



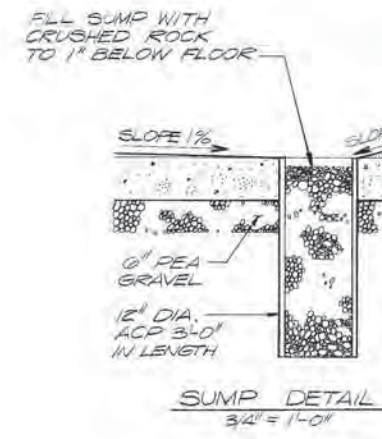
B-62



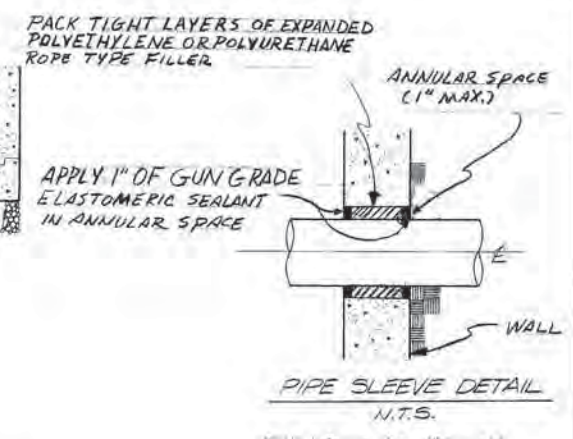
PLAN
3/8" = 1'-0"



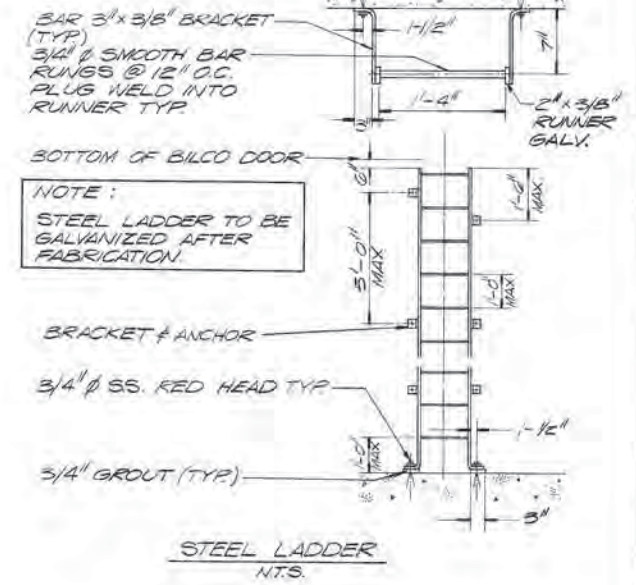
SECTION
3/8" = 1'-0"



SUMP DETAIL
3/4" = 1'-0"

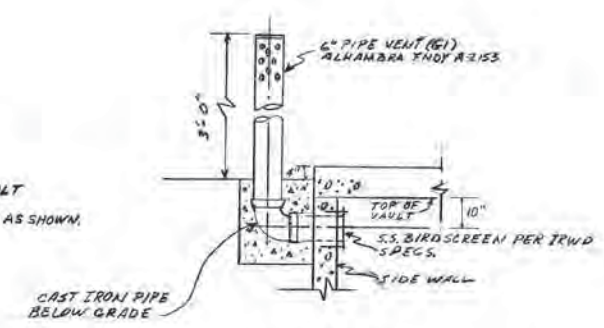


PIPE SLEEVE DETAIL
N.T.S.



STEEL LADDER
N.T.S.

- COMPONENTS LIST
- 12" AC x FLG. ADAPTOR
 - 12" x 10" STL. REDUCER (CONC.), FLG. x FLG., CMLAC
 - 10" STL. 90° BEND, FLG. x FLG., CMLAC
 - 10" GATE VALVE, AWWA STANDARD, W/ALL BRONZE INTERIOR PARTS
 - 10" x 10" TEE FLG'D, CMLAC
 - 10" VICTAULIC COUPLING
 - 10" METER, ROCKWELL PROPELLER MODEL 101
 - 10" FLEX COUPLING
 - 12" STL. 45° BEND, FLG. x FLG., CMLAC
 - 10' x 6' x 7' PRECAST CONCRETE VAULT, W/4' SQ. ACCESS HATCH BILCO DBL. LEAF, TRAFFIC MODEL JD2, GALV. STL. LADDER, ALM. FDRY, A 3885, AND AIR VENT APPRTNC'S.
 - 10" STL. PIPE, FLG. x FLG., CMLAC, 5 CMLX PAINT INSIDE VAULT
 - 10" STL. SPOOL, FLG. x G.E. 10" STL. PIPE FLG x G.E. INCL ELBOW'S AS SHOWN
 - 10" PIPE SUPPORT, ADJUSTABLE, U/METER & PIPE
 - THRUST BLOCK AGAINST UNDISTURBED SOIL
 - SEAL PER PIPE SLEEVE DETAIL
 - VALVE WELL AND C.I. LID, MARK "IRWD WATER"
 - WARNING SIGN PER DETAIL SHEET IN SPEC
 - 10" CHECK VALVE, DOUBLE WAFER, PER SPEC.
 - 10" STL. PIPE, FLG. P.E.



VENT DETAIL
NO SCALE

APPROVAL	
FOR WATER SYSTEM IMPROVEMENTS: LOS ALISOS WATER DISTRICT DISTRICT ENGINEER RCE 30680	DATE 6-18-84
FOR WATER SYSTEM IMPROVEMENTS: LOS ALISOS WATER DISTRICT GENERAL MANAGER	DATE 6-14-84

NO.	DATE	REVISIONS	APPROVED
1	4-11-85	REV DETAIL "A" & PLAN 12" CML & CSP	HWF

DESIGN - HWF
DRAWN - ER
CHECK - HWF

**IRVINE RANCH
WATER DISTRICT**
Irvine, Calif.



Handel W. Faber	PROJECT ENGINEER	6-14-84
ERGIN BAKIR	PROJECT MANAGER	6-14-84
Donald E. Jones	DIRECTOR OF ENGINEERING & PLANNING	6/13/84

**IIC-EAST ZONE IV DOMESTIC WATER MAINS
AND
IRWD-LAWD INTERCONNECT NO. 3 PR. 11535**
IRVINE BOULEVARD

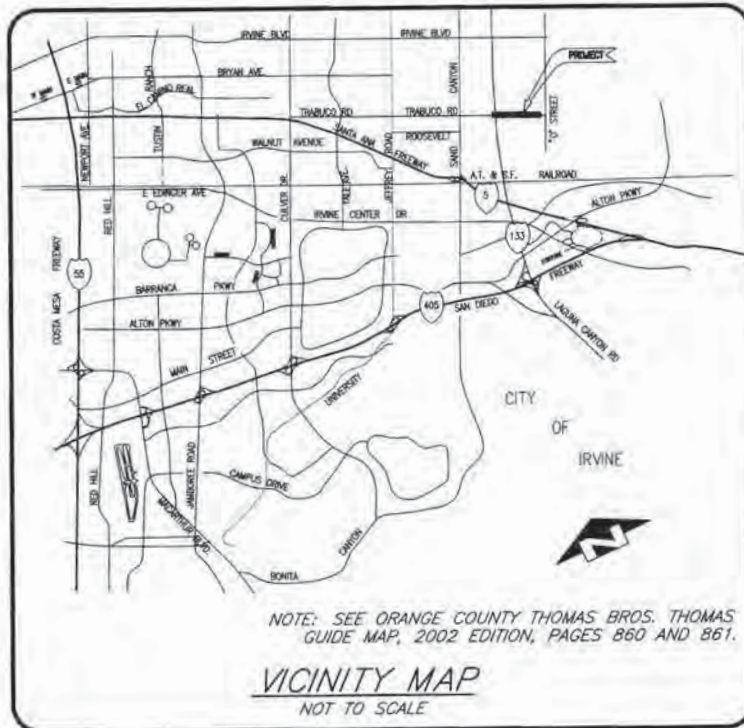
METER VAULT DETAILS AT STA. 33+04	SHEET 15 OF 15
--	-----------------------------------

TRABUCO ROAD – CAPITAL FACILITIES DOMESTIC WATER IMPROVEMENTS PROJECT NUMBER 10419 AND 30419

O.K. FOR CONSTRUCTION - IRWD - J. STEWART 6/3/01

SHEET 1 OF 5

STRABUCCO ROAD - CAPITAL FACILITIES DOMESTIC WATER IMPROVEMENT PROJECT NUMBER 10419 AND 30419 MAY 2008



ABBREVIATIONS							
A.C.P.	ASBESTOS CEMENT PIPE	D.W.	DOMESTIC WATER	L.F.	LINEAL FEET	REV.	REVISED
A.G.T.B.	ABOVE GROUND TERMINAL BOX	ELEV.	ELEVATION	L.T.	LEFT	R.C.P.	REINFORCED CONCRETE PIPE
A.R.	AMERICAN RANCH AND VACUUM RELEASE VALVES	EXIST./EX.	EXISTING	MH	MANHOLE	R.W.	RECLAIMED WATER
A.W.W.A.	AMERICAN WATER WORKS ASSOCIATION	F.E.	FLANGE END	MIN.	MINIMUM	R.W.G.V.	RIGHT OF WAY RESILIENT WEDGE GATE VALVE
A.C.	ASPHALT CONCRETE	F.H.	FIRE HYDRANT	MAX.	MAXIMUM	S.	SLOPE
B.F.V.	BUTTERFLY VALVE	F.G.	FINISHED GRADE	MW	MANWAY	SS	SANITARY SEWER
B.O.P.	BOTTOM OF PIPE	F.L.	FLOW LINE	MJ	MECHANICAL JOINT	SCCP	STEEL CONCRETE CYLINDER PIPE
B.O.	BLOWOFF ASSEMBLY	FLEX	FLEXIBLE	N	NORTH	S.D.	STORM DRAIN
C.B.	CATCH BASIN	F.L.G.	FLANGE	NO.	NUMBER	SHT.	SHEET
C.F.	CURB FACE	F.S.	FINISHED SURFACE	N.T.S.	NOT TO SCALE	ST.	STREET
Q	CENTER LINE	G.B.	GRADE BREAK	PC	POINT OF CURVATURE	STA.	STATION
CML&C	CEMENT MORTAR LINED AND COATED	GALV.	GALVANIZED	PCC	POINT OF COMPOUND CURVATURE	STD.	STANDARDS
CLR.	CLEAR DISTANCE	G.E.	GROOVED END	P.E.	PLAIN END	STL.	STEEL
COMP.	COMPRESSION	G.V.	GATE VALVE	PRC	POINT OF REVERSE CURVATURE	T.C.	TOP OF CURB
CL	CLASS	HORIZ.	HORIZONTAL	PROP.	PROPOSED	T.O.P.	TOP OF PIPE
CP	CATHODIC PROTECTION	INT.	INTERSECTION	P.R.V.	PRESSURE REDUCING VALVE	TYP.	TYPICAL
CSP	CORRUGATED STEEL PIPE	INV.	INVERT	PT	POINT OF TANGENT	VERT.	VERTICAL
CONC.	CONCRETE	I.R.W.D.	IRVINE RANCH WATER DISTRICT	PVC	POLYVINYL CHLORIDE	VCP	VITRIFIED CLAY PIPE
CPTS	CATHODIC PROTECTION TEST STATION	L	LENGTH	R	RADIUS	W	WEST
DEFL.	DEFLECTION	LAT.	LATERAL	RED.	REDUCING		
DIA.	DIAMETER						
DI (DIP)	DUCTILE IRON (DUCTILE IRON PIPE)						



NOTICE TO CONTRACTOR

PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE FOLLOWING IS PERFORMED:

1. UNDERGROUND SERVICE ALERT HAS BEEN CONTACTED AND HAS PROVIDED INQUIRY I.D. #.
2. THE UNDERSIGNED AGREES TO CONTACT AND OBTAIN AN INQUIRY I.D. # FROM UNDERGROUND SERVICE ALERT (1-800-227-2600) AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF EXCAVATION.

SIGNED: _____ DATE: _____

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

ALL UNDERGROUND UTILITIES AND STRUCTURES, PRIVATE AND PUBLIC, SHOWN HEREON REFLECT A SEARCH OF ALL KNOWN RECORD DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND DAMAGE TO ALL STRUCTURES AND UTILITIES, SHOWN OR NOT, HEREIN.

BASIS OF BEARINGS:

ORANGE COUNTY SURVEYOR BENCHMARK NO. "522-2-01"
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83) ZONE VI, 1983 NAD, (NAD 83 EPOCH O.C.S. GPS ADJUSTMENT). ALL DISTANCES SHOWN HEREON ARE GROUND, UNLESS OTHERWISE NOTED. MULTIPLY GROUND DISTANCE BY 0.99996770 TO OBTAIN GRID DISTANCE. ELEV. = 189.857 (NAVD 88)

BENCHMARK:

THE BEARINGS SHOWN HEREON ARE BASED UPON THE GRID BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION GPS NO. 6623 AND STATION GPS NO. 6503 BEING NORTH 62°37'45" EAST PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.
GPS # 6623 (N=2196272.448, E=6098292.498, C.F.=0.99997151)
GPS # 6503 (N=2202756.516, E=6110817.247, C.F.=0.99996389)

SHEET INDEX	
SHEET	TITLE
W1	TITLE SHEET
W2	SHEET INDEX, LOCATION MAP AND LEGEND
W3	NOTES, INDEX MAP, CONSTRUCTION NOTES/QUANTITIES AND CONDENSED PROFILE
W4	TRABUCO ROAD - 12" DW PLAN AND PROFILE STA. 17+07.25 TO STA. 123+50.00 - 470' ZONE
W5	TRABUCO ROAD - 12" DW PLAN AND PROFILE STA. 123+50.00 TO STA. 130+72.40 - 470' ZONE

SYMBOL/LEGEND

— ROADWAY CENTERLINE	— SEWER OR STORM SEWER MANHOLE
--- PROPERTY - R.O.W. LINE	— ISOLATION VALVE
— PROPOSED PIPELINE	— AIR & VACUUM RELEASE VALVE
5 — PIPELINE CENTERLINE STATION	— END OF LINE BLOWOFF ASSEMBLY
— D.W. — DOMESTIC WATER LINE	— LINE DRAIN BLOWOFF ASSEMBLY
— S. — SANITARY SEWER LINE	— CATHODIC PROTECTION TEST STATION
— R.W. — RECLAIMED WATER LINE	— WATER QUALITY SAMPLING STATION
— S.D. — STORM DRAIN LINE	— FIRE HYDRANT
— TELEMETRY PULL BOX/TERMINAL CABINET	

UTILITIES

SO. CALIF. EDISON (DISTRIBUTION)	(714)895-0426
GENERAL TELEPHONE	(714)375-6701
SO. CALIF. GAS CO.	(714)432-6038
IRVINE RANCH WATER DISTRICT (CONSTRUCTION)	(949)453-5610
IRVINE RANCH WATER DISTRICT (INSPECTION)	(949)453-5615
IRVINE RANCH WATER DISTRICT (OPERATIONS)	(949)453-5745
GOX COMMUNICATIONS	(949)240-8828
IRVINE COMMUNITY DEVELOPMENT CO. (ICDC)	(949)720-2000
UNDERGROUND SERVICE ALERT	1 (800)227-2600
COUNTY OF ORANGE-CONSTRUCTION	(714)567-7838
CITY OF IRVINE-CONSTRUCTION	(949)724-6000



DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA



STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6000



IRVINE RANCH WATER DISTRICT
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6000

STANTEC PROJECT ENGINEER
R. VAUGHAN JOHNSON
STANTEC PROJECT MANAGER
R. VAUGHAN JOHNSON
IRWD PRINCIPAL ENGINEER
J. STANLEY

IRVINE RANCH WATER DISTRICT
TRABUCO ROAD - CAPITAL
FACILITIES - DOMESTIC WATER
PROJECT NUMBER 10419 AND 30419

SHEET INDEX, LOCATION MAP,
AND LEGEND

SHEET
W2
OF
5
SHEETS

CAPITAL DOMESTIC WATER CONSTRUCTION NOTES

1	REMOVE AND DISPOSE OF EXISTING 12" PVC PIPE AND TEMPORARY END OF LINE BLOW-OFF ASSEMBLY.	1 EA.
2	INSTALL 12" AWWA C-900 PVC PIPE, PRESSURE CL 200, PER IRWD STD. DWG. W-17.	1,023 L.F.
3	INSTALL 12" B.F.V. CLASS 150 (FE x FE) AND THRUST BLOCK PER IRWD STD. DWG. W-22.	2 EA.
4	INSTALL 12" 22.5' (MJ x MJ) BEND W/ THRUST BLOCK AND RETAINER GLANDS PER IRWD STD. DWG. W-16.	2 EA.
5	NOT USED	
6	INSTALL 1" AIR RELEASE AND VACUUM RELIEF VALVE ASSEMBLY PER IRWD STD. DWG. W-11.	1 EA.
7	INSTALL 12" x 8" (FE x FE) REDUCER AND THRUST BLOCK PER IRWD STD. DWG. W-16.	2 EA.
8	SAWCUT AND REPAIR EXISTING STREET PER CITY OF IRVINE STD. NO. 223.	258 S.F.
9	REMOVE AND DISPOSE OF EXISTING PALM TREES.	13 EA.
10	INSTALL PLUG FOR 12" PVC PIPE WITH THRUST BLOCK PER IRWD STD. DWG. W-16.	1 EA.
11	INSTALL SLIP-ON FLANGE FOR 8" PIPE.	1 EA.
12	INSTALL 12" (FE x PO) ADAPTER.	1 EA.
13	INSTALL TEMPORARY FLUSH-OUT ASSEMBLY PER IRWD STD. DWG. W-12.	1 EA.
14	INSTALL 12" (FE x MJ) ADAPTER WITH RETAINER GLAND.	3 EA.
15	INSTALL 8" AWWA C-900 PVC PIPE, PRESSURE CL 200, PER IRWD STD. DWG. W-17.	14 L.F.
16	INSTALL 8" 22.5' (MJ x MJ) BEND W/ THRUST BLOCK AND RETAINER GLANDS PER IRWD STD. DWG. W-16.	1 EA.
17	INSTALL 8" (FE x MJ) ADAPTER WITH RETAINER GLAND.	1 EA.

NON ASSESSMENT DISTRICT
DOMESTIC WATER CONSTRUCTION NOTES

41	CONSTRUCT 2" WATER SERVICE AND METER BOX PER IRWD STD. DWG. W-2.	1 EA.
42	INSTALL INDUSTRIAL FIRE HYDRANT ASSEMBLY PER IRWD STD. DWG. W-9.	1 EA.
43	CONSTRUCT 12" x 6" TEE (PO x FE) PER IRWD STD. DWG. W-16.	1 EA.
44	REMOVE AND DISPOSE OF EXISTING PALM TREES.	7 EA.

NOTE

THE CITY OF IRVINE MAJOR UTILITY PERMIT STANDARD CONDITIONS APPLY TO THIS PROJECT.

NOTE

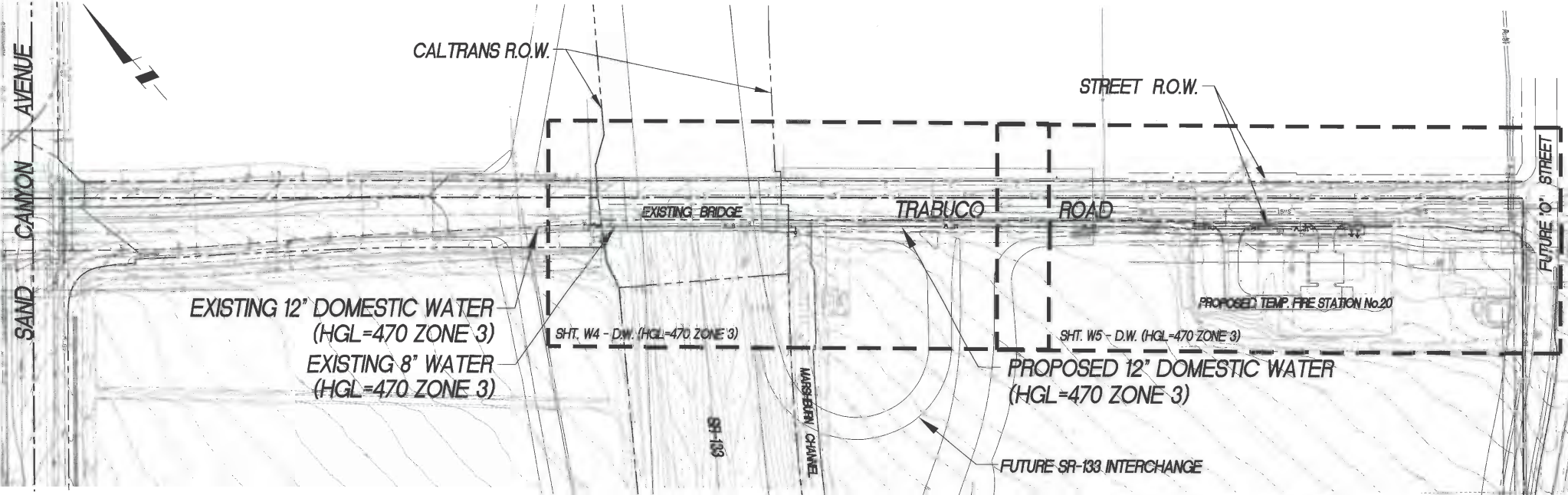
ALL BUTTERFLY VALVES, 12" AND LARGER, MUST BE TESTED WITH THE OPERATOR INSTALLED AND WITNESSED BY THE IRWD INSPECTORS. FOR THIS PROJECT ONLY, TEST EACH SIDE OF THE VALVE AT 150 PSI.

DOMESTIC WATER NOTES

- A. ALL WATER SYSTEM WORK SHALL CONFORM TO THE DISTRICT'S "PROCEDURAL GUIDELINE AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL," AS LAST REVISED.
- B. THE DISTRICT'S ENGINEERING OFFICE SHALL BE CALLED FOR INSPECTION FOUR (4) WORKING DAYS BEFORE START OF WORK AT (949) 453-5300 OR (949) 453-5615.
- C. A PRECONSTRUCTION CONFERENCE OF REPRESENTATIVES FROM AFFECTED AGENCIES AND THE CONTRACTOR SHALL BE HELD ON THE JOB SITE 48 HOURS PRIOR TO START OF WORK.
- D. THE WATER SYSTEM SHALL BE STAKED BY THE DEVELOPER'S ENGINEER AT A MINIMUM 50-FOOT STATIONING INTERVAL IF THERE ARE NO EXISTING CURBS.
- E. ANY WATER SERVICE FOUND TO BE WITHIN A DRIVEWAY OR SIDEWALK SHALL BE REMOVED COMPLETELY AND REINSTALLED AT THE PROPER LOCATION AT NO COST TO THE DISTRICT.
- F. ALL MAIN LINE VALVES SHALL BE MAINTAINED SO AS TO BE ACCESSIBLE DURING TRACT DEVELOPMENT, AND ALL VALVE STEM TOPS HAVING OVER 48 INCHES OF COVER WILL REQUIRE AN EXTENSION AS PER DRAWING W-8.
- G. IN RESIDENTIAL STREETS, THE TOP OF THE PIPE, 10-INCHES AND SMALLER, SHALL BE A MINIMUM OF 42-INCHES BELOW THE FINISHED STREET SURFACE AND 48-INCHES BELOW FINISHED STREET SURFACE ON ALL PRIMARY AND SECONDARY STREETS.
- H. ALL FIRE HYDRANTS SHALL BE SET WITH THE BOTTOM FLANGE 4-INCHES ABOVE THE CONCRETE PAD OR SIDEWALK AND SHALL BE LOCATED A MINIMUM OF 3 FEET FROM THE EOR OR BOR AT INTERSECTIONS.
- I. ALL WATER MAINS 6-INCHES THROUGH 12-INCHES SHALL BE CLASS 200, AWWA C-900 PVC, UNLESS NOTED OTHERWISE.
- J. NO TAPS OR OTHER CONNECTIONS SHALL BE MADE TO EXISTING DISTRICT WATER MAINS PRIOR TO CONDUCTING AN APPROVED PRESSURE TEST ON THE NEW WATER DISTRIBUTION SYSTEM. TAPPING SLEEVES SHALL BE PRESSURE TESTED IN AN APPROVED MANNER IN THE FIELD IN THE PRESENCE OF THE DISTRICT INSPECTOR, PRIOR TO TAPPING THE MAIN LINE. TAPPING OF THE MAIN LINE SHALL NOT PROCEED UNLESS A DISTRICT INSPECTOR IS PRESENT.
- K. WHERE METERS AND METER BOXES ARE LOCATED WITHIN SLOPES, THE ANGLE METER STOPS SHALL BE LOCATED SO THAT THE METERS AND BOXES WILL BE PARALLEL AND FLUSH, RESPECTIVELY, WITH THE FINISHED SURFACE.
- L. METERS SHALL NOT BE PLACED WITHIN ANY SIDEWALK OR DRIVEWAY AREA.
- M. CURBS SHALL BE INSCRIBED WITH A "W" INDICATING LOCATIONS OF ALL DOMESTIC WATER SERVICES BY USE OF A 4" GRINDER.
- N. INDIVIDUAL PRESSURE REGULATORS ARE REQUIRED BY THE UNIFORM PLUMBING CODE IF THE AVERAGE STATIC PRESSURE IN THE MAIN IS EQUAL TO OR GREATER THAN 80 PSI.
- O. CURBS SHALL BE INSCRIBED WITH THE DOWN OF ALL VALVE LOCATIONS BY USE OF A 4" GRINDER.
- P. THE CONTRACTOR SHALL EXPOSE JOIN POINTS TO THE EXISTING WATER SYSTEM FOR VERIFICATION OF LOCATION AND ELEVATION BEFORE CONSTRUCTION.
- Q. FINAL INSPECTION FOR WATERLINES MUST INCLUDE WATER SAMPLES THAT WILL BE TESTED FOR CONDUCTIVITY, TURBIDITY, AND ODOR. THE TURBIDITY MUST BE LESS THAN 2.5 NTU AND THE ODOR MUST BE LESS THAN 1.0 TON, NOT TO INCLUDE CHLORINE ODOR, TO BE ACCEPTABLE.
- R. THE CONTRACTOR WORKING ON THE IRWD WATERLINES MUST HAVE A VALID C-34 LICENSE OR A CLASS A GENERAL CONTRACTORS' LICENSE.
- S. CONTRACTOR SHALL OBTAIN AND SHOW PROOF OF A DEWATERING PERMIT FROM THE STATE OF CALIFORNIA, REGIONAL WATER QUALITY CONTROL BOARD PRIOR TO THE START OF EXCAVATION.
- T. ALL BUTTERFLY VALVES 16" AND LARGER SHALL BE TESTED AFTER THE OPERATOR IS INSTALLED AND OBSERVED BY AN IRWD INSPECTOR.

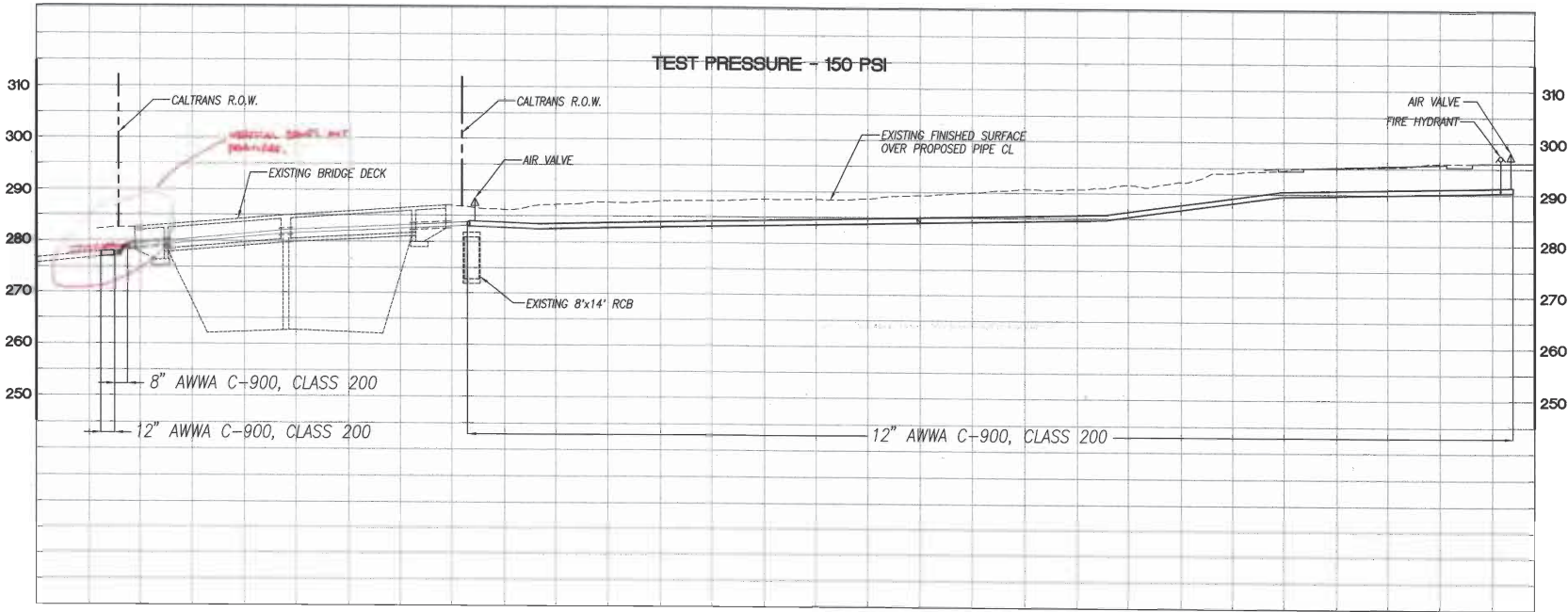
QUANTITIES

QUANTITIES



INDEX MAP

SCALE: 1"=120'



12" (HGL=470 ZONE 3) DW - TRABUCO ROAD

SCALE: 1" = 80' HORIZONTAL
1" = 16' VERTICAL



A "AS-BUILT"

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

ALL UNDERGROUND UTILITIES AND STRUCTURES, PRIVATE AND PUBLIC, SHOWN HEREON REFLECT A SEARCH OF ALL KNOWN RECORD DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND DAMAGE TO ALL STRUCTURES AND UTILITIES, SHOWN OR NOT, HEREIN. DAMAGED TRAFFIC LOOPS SHALL BE REPLACED PER CITY OF IRVINE ORDINANCE.

WHERE ANGULAR DEFLECTION AT GRADE BREAKS AND ANGLE POINTS EXCEEDS THE MAXIMUM ALLOWABLE, AS REQUIRED BY IRWD FOR THE TYPE OF PIPE USED, THE CONTRACTOR SHALL "ROPE" OR DEFLECT EACH LENGTH OF PIPE OR USE NON-STANDARD PIPE LENGTHS AS FIELD CONDITIONS DICTATE SO THAT ALLOWABLE PIPE JOINT DEFLECTIONS ARE NOT EXCEEDED.

NO.	DATE	REVISIONS	APPROVED
1	9-15-08	"AS BUILT"	J. STANBART

DESIGN:	MS
DRAWN:	JM
CHECK:	TP



STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6000

stantec.com



Todd L. Pitner	STANTEC PROJECT ENGINEER	6-3-08
R. Vaughan Johnson	STANTEC PROJECT MANAGER	6-3-08
Jeff Stanbart	IRWD PRINCIPAL ENGINEER	6/3/08

IRVINE RANCH WATER DISTRICT
TRABUCO ROAD - CAPITAL
FACILITIES - DOMESTIC WATER
PROJECT NUMBER 10419 AND 30419

NOTES, INDEX MAP,
CONSTRUCTION NOTES
AND CONDENSED PROFILE

IRWD CODE 5018
PLAN CHECK #00462642-EMC
PERMIT #00463699-MCE

SHEET
W3
OF
5
SHEETS

Downloaded by [redacted] on 09/27/2008 10:41 AM. All rights reserved.



DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

12" (HGL=470 ZONE 3) DOMESTIC WATER MAIN

FLUSH-OUT NOTE:

CONTRACTOR TO CHLORINATE, HYDROSTATIC PRESSURE TEST, AND FLUSH EXISTING PIPELINE PRIOR TO TIE-IN CONNECTION PER IRWD SPECS. CONTRACTOR SHALL COORDINATE WITH THE DISTRICT ON THE NEED FOR THIS OPERATION.



STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6000



TODD L. PINDER
No. 58606
Exp. 12/31/08
CIVIL
DATE OF CALIFORNIA

IRVINE RANCH WATER DISTRICT
TODD L. PINDER
R. VAUGHAN JOHNSON
JEFF STANFORD

STANTEC PROJECT ENGINEER
R.C.E. 58606
DATE 6-3-08

STANTEC PROJECT MANAGER
R.C.E. 68861
DATE 6-3-08

IRWD PRINCIPAL ENGINEER
R.C.E. 36799
DATE 6/3/08

IRVINE RANCH WATER DISTRICT
DOMESTIC WATER - 470 ZONE
IMPROVEMENTS
PROJECT NUMBER 10419 AND 30419

TRABUCO ROAD
PLAN AND PROFILE
FROM STA. 117+07.25 TO STA. 123+50.00

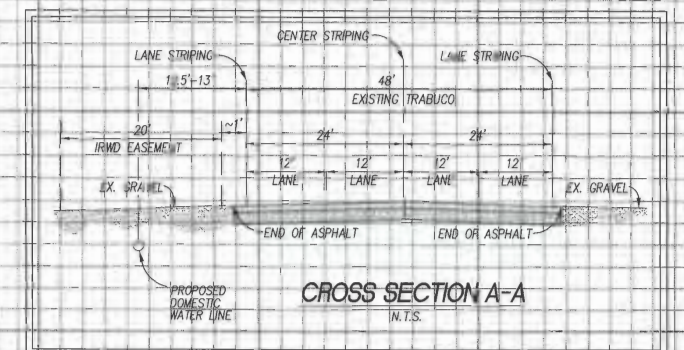
PLAN CHECK #00462642-ENC
PERMIT #00463699-MCE

IRWD CODE 5018

SHEET
W4
OF
5
SHEETS

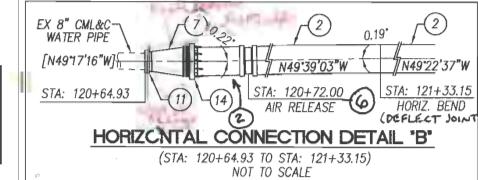
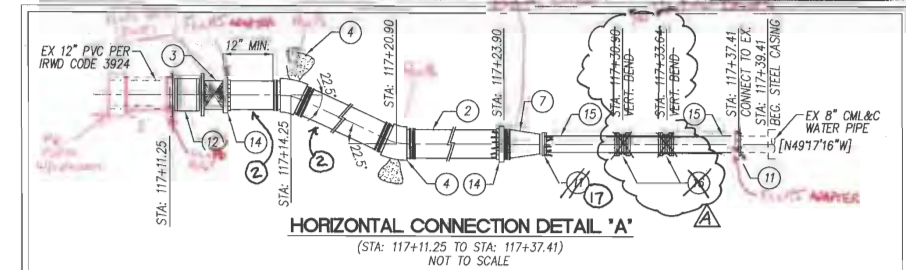
DESIGN ELEVATION LEGEND:

100.00 ENGINEERED DESIGN ELEVATION
(100.00) ELEVATION FIELD VERIFIED BY SURVEY
[100.00] ELEVATION DERIVED FROM AS-BUILT PLANS
OR DESIGN PLANS NOT CONSTRUCTED
AT THE TIME THESE PLANS WERE PREPARED
CONTRACTOR SHALL FIELD VERIFY ALL
ELEVATIONS PRIOR TO THE START OF CONSTRUCTION
AND NOTIFY THE ENGINEER OF RECORD OF ANY
DISCREPANCY PRIOR TO COMMENCEMENT OF WORK



PROFILE

HORIZ. 1" = 40'
VERT. 1" = 8'



TRAFFIC CONTROL NOTE
THERE IS NO TRAFFIC CONTROL PLAN ASSOCIATED WITH THESE IMPROVEMENT PLANS. CONTRACTOR TO INSTALL TRAFFIC CONTROL MEASURES PER LATEST VERSION OF W.A.T.C.H. MANUAL.

CONTRACTOR SHALL VERIFY EXISTING INV. ELEVATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES

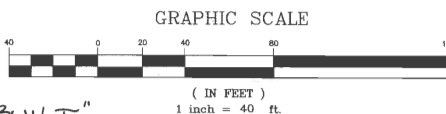
CAPITAL DOMESTIC WATER CONSTRUCTION NOTES

- 1- REMOVE AND DISPOSE OF EXISTING 12" PVC PIPE AND TEMPORARY END OF LINE BLOW-OFF ASSEMBLY
- 2- INSTALL 12" AWWA C-900 PVC PIPE, PRESSURE CL 200, PER IRWD STD. DWG. W-17
- 3- INSTALL 12" B.V. CLASS 150 (FE x FE) AND THRUST BLOCK PER IRWD STD. DWG. W-22
- 4- INSTALL 12" 22.5" (MJ x MJ) BEND W/ THRUST BLOCK AND RETAINER GLANDS PER IRWD STD. DWG. W-16
- 5- INSTALL 1" AIR RELEASE AND VACUUM RELIEF VALVE ASSEMBLY PER IRWD STD. DWG. W-11
- 6- INSTALL 12" x 8" (FE x FE) REDUCER AND THRUST BLOCK PER IRWD STD. DWG. W-16
- 7- SAWCUT AND REPAIR EXISTING STREET PER CITY OF IRVINE STD. NO. 223
- 8- INSTALL SLIP-ON FLANGE FOR 8" PIPE
- 9- INSTALL 12" (FE x PO) ADAPTER
- 10- INSTALL 12" (FE x MJ) ADAPTER WITH RETAINER GLAND
- 11- INSTALL 8" AWWA C-900 PVC PIPE, PRESSURE CL 200, PER IRWD STD. DWG. W-17
- 12- INSTALL 8" 22.5" (MJ x MJ) BEND W/ THRUST BLOCK AND RETAINER GLANDS PER IRWD STD. DWG. W-16
- 13- INSTALL 8" FE x MJ ADAPTER WITH RETAINER GLAND

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

ALL UNDERGROUND UTILITIES AND STRUCTURES, PRIVATE AND PUBLIC, SHOWN HEREON REFLECT A SEARCH OF ALL KNOWN RECORD DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND DAMAGE TO ALL STRUCTURES AND UTILITIES, SHOWN OR NOT, HEREIN.

WHERE ANGULAR DEFLECTION AT GRADE BREAKS AND ANGLE POINTS EXCEEDS THE MAXIMUM ALLOWABLE AS REQUIRED BY IRWD FOR THE TYPE OF PIPE USED, THE CONTRACTOR SHALL "ROPE" OR DEFLECT EACH LENGTH OF PIPE OR USE NON-STANDARD PIPE LENGTHS AS FIELD CONDITIONS DICTATE SO THAT ALLOWABLE PIPE JOINT DEFLECTIONS ARE NOT EXCEEDED.



1 inch = 40 ft.

"AS-BUILT"

SEWER AND WATER IMPROVEMENTS IN SAND CANYON ROAD AND PRIVATE ACCESS EASEMENT TO CALTRANS MAINTENANCE FACILITY

1100' NORTHEAST OF MARINE WAY
UNINCORPORATED ORANGE COUNTY

WATER NOTES:

- THE WATER SYSTEM IS TO BE INSTALLED BY THE DEVELOPER. ALL WATER SYSTEM WORK SHALL CONFORM TO THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
- THE DISTRICT ENGINEERING OFFICE SHALL BE CALLED FOR INSPECTION FOUR (4) WORKING DAYS BEFORE START OF WORK AT (949) 453-5300 OR (949) 453-5615.
- A PRE-CONSTRUCTION CONFERENCE OF REPRESENTATIVES FROM AFFECTED AGENCIES AND THE CONTRACTOR SHALL BE HELD ON THE JOB SITE 48-HOURS PRIOR TO START OF WORK.
- THE WATER SYSTEM IS TO BE STAKED BY THE DEVELOPER'S ENGINEER AT A MINIMUM 50-FOOT STATIONING IF THERE ARE NO EXISTING CURBS.
- ANY WATER SERVICE FOUND TO BE WITHIN A DRIVEWAY OR SIDEWALK SHALL BE REMOVED COMPLETELY AND RE-INSTALLED AT THE PROPER LOCATION AT NO COST TO THE DISTRICT.
- ALL MAIN LINE VALVES SHALL BE MAINTAINED SO AS TO BE ACCESSIBLE DURING TRACT DEVELOPMENT, AND ALL VALVE STEM TOPS HAVING OVER 48-INCHES OF COVER WILL REQUIRE AN EXTENSION AS PER DRAWING W-8.
- IN RESIDENTIAL STREETS, THE TOP OF THE PIPE, 10-INCHES AND SMALLER, SHALL BE A MINIMUM OF 42-INCHES BELOW THE FINISHED STREET SURFACE AND 48-INCHES BELOW FINISHED STREET SURFACE ON ALL PRIMARY AND SECONDARY STREETS.
- ALL FIRE HYDRANTS SHALL BE SET WITH THE BOTTOM FLANGE 4-INCHES ABOVE THE CONCRETE PAD OR SIDEWALK WITHOUT THE USE OF SPOOLS AND SHALL BE LOCATED A MINIMUM OF 3 FEET FROM THE ECR OR BCR AT INTERSECTION.
- ALL WATER MAINS 6-INCHES THROUGH 12-INCHES SHALL BE CLASS 150, ANMA C-900 PVC, UNLESS OTHERWISE NOTED.
- NO TAPS OR OTHER CONNECTIONS SHALL BE MADE TO EXISTING DISTRICT WATER MAINS PRIOR TO CONDUCTING AN APPROVED PRESSURE TEST ON THE NEW WATER DISTRIBUTION SYSTEM. TAPPING SLEEVES SHALL BE PRESSURE TESTED IN AN APPROVED MANNER IN THE FIELD, IN THE PRESENCE OF THE DISTRICT INSPECTOR, PRIOR TO TAPPING THE MAIN LINE. TAPPING OF THE MAIN LINE SHALL NOT PROCEED UNLESS A DISTRICT INSPECTOR IS PRESENT.
- WHERE METERS AND METER BOXES ARE LOCATED WITHIN SLOPES, THE ANGLE METER STOPS SHALL BE SO LOCATED THAT THE METERS AND BOXES WILL BE PARALLEL AND FLUSH, RESPECTIVELY, WITH THE FINISHED SURFACE.
- NO METER IS TO BE PLACED WITHIN ANY SIDEWALK OR DRIVEWAY AREA.
- CURBS SHALL BE INSCRIBED WITH A "W" INDICATING LOCATIONS OF ALL DOMESTIC WATER SERVICES.
- INDIVIDUAL PRESSURE REGULATORS ARE REQUIRED BY THE UNIFORM PLUMBING IF AVERAGE STATIC PRESSURE IN THE MAIN IS 80 PSI OR MORE.
- CURBS SHALL BE INSCRIBED WITH THE DOWNS FOR ALL VALVE LOCATIONS.
- THE CONTRACTOR SHALL EXPOSE ALL JOINT POINTS TO THE EXISTING DOMESTIC WATER SYSTEM FOR VERIFICATION OF HORIZONTAL AND VERTICAL LOCATION BEFORE CONSTRUCTION.
- FINAL INSPECTION FOR WATERLINES MUST INCLUDE WATER SAMPLES THAT WILL BE TESTED FOR CONDUCTIVITY, TURBIDITY AND ODOOR. THE TURBIDITY MUST BE LESS THAN 1.0 TON, NOT TO INCLUDE CHLORINE ODOOR, TO BE ACCEPTABLE.
- THE CONTRACTOR WORKING ON IRWD WATERLINES MUST HAVE A C-34 LICENSE OR CLASS A GENERAL CONTRACTORS LICENSE.
- 3.11 MISCELLANEOUS STANDARD GUIDELINES
- A. SEPARATE QUANTITY ESTIMATES ARE TO BE INCLUDED ON THE PLANS TO INDICATE QUANTITY OF PIPE, NUMBER OF HYDRANTS, VALVES, FITTINGS, SERVICES, METER BOXES, ETC.
- B. THE PLANS SHALL SHOW, IN PLAN AND PROFILE VIEWS, THE POSITION OF ALL OTHER KNOWN EXISTING UNDERGROUND UTILITIES AS WELL AS PROPOSED UNDERGROUND UTILITIES. VERTICAL CLEARANCE AT CROSSINGS SHALL BE INDICATED BY SHOWING TOP OF PIPE AND BOTTOM OF PIPE ELEVATIONS AT THE POINT OF INTERSECTION.
- C. TEMPORARY BLOW-OFF ASSEMBLIES SHALL BE INSTALLED AT THE END OF ALL MAINS AND LARGE SERVICE STUB-OUTS FOR TESTING AND FLUSHING PURPOSES (DISTRICT STANDARD DRAWING W-9).

SEWER NOTES:

- STATION SHOWN AS THIS [0+00] ARE SEWER STATIONS AND ARE INDEPENDENT OF ALL CENTERLINE STATIONS.
- THE SEWER SYSTEM IS TO BE INSTALLED BY THE DEVELOPER. ALL SEWER WORK SHALL CONFORM TO THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
 - THE SEWER CONTRACTOR SHALL HAVE A COPY OF THE DISTRICT'S STANDARD SPECIFICATIONS ON THE JOB.
 - THE CONTRACTOR SHALL OBTAIN A CITY OR COUNTY PERMIT FOR WORK DONE ON PUBLIC RIGHT-OF-WAY.
 - THE DISTRICT ENGINEERING OFFICE SHALL BE CALLED FOR INSPECTION FOUR (4) WORKING DAYS BEFORE START OF WORK AT (949) 453-5300 OR 453-5615.
 - A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD 48 HOURS BEFORE STARTING CONSTRUCTION WORK.
 - THE CONTRACTOR SHALL EXPOSE ALL JOINT POINTS TO THE EXISTING SEWER SYSTEM FOR VERIFICATION OF LOCATION AND ELEVATION BEFORE CONSTRUCTION.
 - STATIONS SHOWN AS 0+00.00 ARE SEWER STATIONS AND ARE INDEPENDENT OF ALL OTHER STATIONS.
 - ALL LATERALS ARE TO BE STAKED BY A SURVEYOR BEFORE TRENCHING AND A COMPLETE SET OF CUT SHEETS SUPPLIED TO THE DISTRICT INSPECTOR.
 - ALL SEWER MANHOLE LIDS ARE TO HAVE "IRWD" CAST THEREON AS SHOWN IN DRAWING S-4.
 - THE DISTRICT WILL INSPECT AND TEST THE SEWER COLLECTION SYSTEM AND LATERAL SEWERS TO THE PROPERTY CLEAN-OUT, PRIVATELY OWNED SEWER LATERALS FROM THE PROPERTY LINE CLEAN-OUT WILL BE INSPECTED AND TESTED BY THE CITY OF IRVINE.
 - INFILTRATION AND AIR TESTING OF SEWER LINES SHALL BE IN ACCORDANCE WITH THE DISTRICT'S "PROCEDURAL GUIDELINES AND GENERAL DESIGN REQUIREMENTS" AND "CONSTRUCTION MANUAL", AS LAST REVISED.
 - ALL SEWER LINES SHALL BE BALLED IN THE PRESENCE OF THE DISTRICT INSPECTOR BEFORE COMPLETION OF ALL LEAKAGE TESTS.
 - PIPELINE LEAKAGE TESTS SHALL BE MADE IN THE PRESENCE OF THE DISTRICT INSPECTOR, ONLY AFTER BACKFILL HAS BEEN COMPLETED, COMPACTION TESTS ON BACKFILL HAVE BEEN MADE, AND THE BACKFILL HAS BEEN ACCEPTED BY THE DISTRICT INSPECTOR.
 - ALL SEWER MAIN LINES 6-INCHES AND LARGER ARE TO BE INSPECTED BY THE DISTRICT USING A CLOSED CIRCUIT TELEVISION SYSTEM. A VIDEO TAPE RECORDING WILL BE MADE OF THE INSPECTION.
 - THE CONTRACTOR IS TO PROVIDE THE DISTRICT WITH AN AS-BUILT SET OF JOB PRINTS WITH TIE-DOWN MEASUREMENTS FOR ALL LATERALS AND MANHOLES.
 - BEFORE FINAL ACCEPTANCE, THE DEVELOPER'S ENGINEER SIGNING THE PLANS SHALL FURNISH THE DISTRICT WITH A SET OF AS-BUILT MYLARS OF THE SEWER PLAN.
 - CURBS SHALL BE INSCRIBED WITH AN "S" INDICATING LOCATIONS OF ALL SEWER LATERALS.
 - CURBS SHALL BE INSCRIBED WITH TIES FOR ALL MANHOLE LOCATIONS.
 - THE CONTRACTOR WORKING ON IRWD SEWER MAINS MUST HAVE A C-34 LICENSE OR A CLASS A CONTRACTORS LICENSE.
 - TRENCH BACKFILL, ON ALL SEWER AND WATER TO BE DEDICATED TO THE DISTRICT, SHALL BE COMPACTED TO 90% RELATIVE DENSITY AS DETERMINED BY THE FIVE-LAYER TEST METHOD (CALIFORNIA 216G). TESTS WILL BE REQUIRED EVERY 300-FEET OF TRENCH OR AS DETERMINED BY THE DISTRICT INSPECTOR. THE DEVELOPER SHALL SUBMIT WRITTEN RESULTS OF COMPACTION TESTING TO THE DISTRICT BEFORE ACCEPTANCE. IF IN DEDICATED STREET OR FUTURE STREET, COMPACTION WILL BE AS REQUIRED BY GOVERNMENTAL AGENCY HAVING JURISDICTION, BUT NO LESS THAN 90% RELATIVE COMPACTION.
 - DISTRICT WILL INSPECT AND TEST MAIN LINE SEWER ONLY. SEWER LATERALS FROM THE MAIN LINE OR PROPERTY LINE TO BUILDINGS THAT ARE PRIVATE WILL BE INSPECTED AND TESTED BY THE CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT OR OTHER APPROPRIATE AGENCIES IF OUTSIDE THE CITY OF IRVINE.

GENERAL NOTES

- THE DEVELOPER/CONTRACTOR SHALL HAVE A COPY OF THE CURRENT PFRD & A.P.W.A. STANDARD PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
- THE DEVELOPER SHALL TELEPHONE THE COUNTY PFRD INSPECTOR AT (714) 567-7800 AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION WORK SUBJECT TO PDSO INSPECTION.
- ALL DAMAGED CONCRETE SIDEWALKS OR CURBS SHALL BE SAW-CUT TO THE NEAREST TRANSVERSE SCORE MARK OF ADJUSTABLE CONTROL JOINT OR WEAKENED PLANE JOINT AND REPLACED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE PFRD STANDARD PLANS.
- DEVELOPER SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN, DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF COUNTY'S INSPECTOR. THE ADJACENT STREET SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. DEVELOPER SHALL BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE COUNTY RIGHT-OF-WAY WITHOUT THE PERMISSION OF COUNTY'S INSPECTOR.
- PRIOR TO FINAL ACCEPTANCE OF STREET IMPROVEMENTS, ALL STREET PAVEMENT, STRIPING AND STENOILING WITHIN THE PERIMETER OF THE CONSTRUCTION PROJECT WILL BE RESTORED TO A "LIKE NEW" CONDITION, IN A MANNER MEETING THE APPROVAL OF THE DIRECTOR OF PFRD.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE PROTECTED WITH ADEQUATE BARRICADES, LIGHTS, SIGNS AND WARNING DEVICES AS PER THE CURRENT STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, MANUAL OF TRAFFIC CONTROLS AND TO THE DIRECTION OF THE COUNTY'S INSPECTOR.
- PFRD STANDARD PLANS SHALL TAKE PRECEDENCE OVER ANY CONFLICTS EXCEPT FOR STANDARD PLANS AFFECTING UTILITY COMPANIES, IF THEIR STANDARDS ARE MORE STRINGENT.
- ANY UTILITIES UNDER PAVED AREAS OF PRIVATE STREETS SHALL HAVE MINIMUM OF 36" COVER AND DEVELOPER SHALL PROVIDE PRIVATE LABORATORY COMPACTION CERTIFICATION FOR ALL UNDERGROUND UTILITIES PRIOR TO ANY PAVING. DEVELOPER SHALL SET UP A MEETING WITH THE INSPECTOR AND THE PRIVATE LABORATORY PRIOR TO ANY TESTING.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, THE CONSULTING ENGINEER AND THE COUNTY OF ORANGE HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE CONSULTING ENGINEER OR THE COUNTY OF ORANGE.
- THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES AND COMPLIANCE WITH ALL SOUTH COAST AQMD RULES AND REGULATIONS. PERMITTEE IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS FROM AQMD. ALL GRADING OPERATIONS SHALL BE SUSPENDED DURING SECOND (OR WORSE) STAGE SMOG ALERTS BY AQMD.
- THE PROJECT APPLICANT SHALL DEMONSTRATE MEASURES TO ENSURE COMPLIANCE WITH SQCMD RULE 403, AND SHALL IDENTIFY THE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE MANAGER, DEVELOPMENT SERVICES. THIS SHALL ASSIST IN REDUCING SHORT-TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403.
- WATER SHALL BE APPLIED TO THE SITE TWICE DAILY DURING GRADING OPERATIONS OR AS OTHERWISE DIRECTED BY THE PDSO INSPECTOR IN COMPLIANCE WITH SOUTH COAST AQMD RULE 403 (FUGITIVE DUST EMISSIONS). PERMITTEE SHALL PERIODICALLY OPERATE STREET SWEEPERS ON PAVED AREAS ADJACENT TO THE SITE.

IMPORTANT NOTICE

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG.



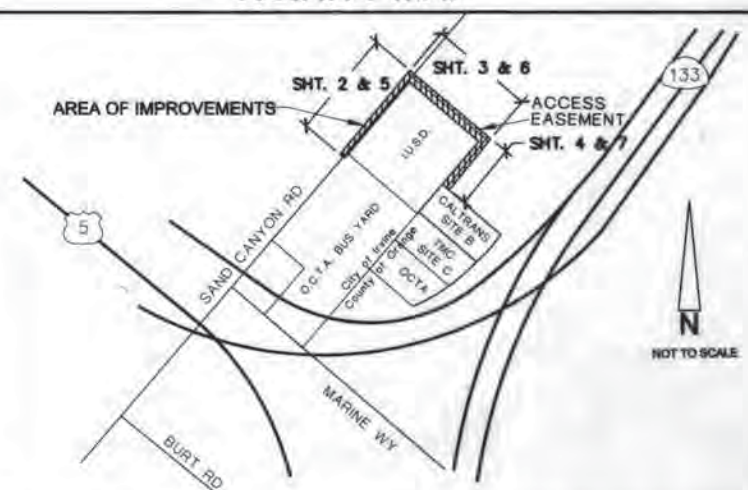
DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

UNDERGROUND STRUCTURES

UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS, AND THOSE SHOWN ON THE RECORDS EXAMINED, ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

VICINITY MAP



CONSTRUCTION NOTES AND QUANTITIES

No.	DESCRIPTION	QUANTITY	UNIT
SEWER CONSTRUCTION NOTES:			
20	INSTALL 12" VCP SEWER LINE PER I.R.W.D. STD. S-8.	155	LF
21	INSTALL 8" VCP SEWER LINE PER I.R.W.D. STD. S-8.	668	LF
22	CONSTRUCT 60" SEWER MANHOLE PER I.R.W.D. STD. S-1.	4	EA
23	CONSTRUCT 48" SEWER MANHOLE PER I.R.W.D. STD. S-1.	4	EA
24	CONSTRUCT 6" VCP SEWER LATERAL PER I.R.W.D. STD. S-6.	10	LF
27	REMOVE EXIST. STUB AND CONNECT 12" VCP SEWER.	1	EA
28	PLUG 8" SEWER STUB.	2	EA
29	INSTALL 10" VCP SEWER LINE PER I.R.W.D. STD. S-8.	621	LF
30	PLUG 12" SEWER STUB.	1	EA
DOMESTIC WATER CONSTRUCTION NOTES:			
31	INSTALL 8" DOUBLE CHECK BACKFLOW ASSEMBLY PER I.R.W.D. STD. W-16 WITH FIRE DEPARTMENT CONNECTION.	1	EA
32	1" BACKFLOW PREVENTER PER I.R.W.D. STD. W-20 FOR IRRIGATION USE.	1	EA
33	INSTALL FIRE HYDRANT ASSEMBLY PER I.R.W.D. STD. W-6.	1	EA
34	INSTALL 4" SERVICE AND METER PER I.R.W.D. STD. W-17 FOR SITE "B" (53 GPM DOMESTIC) (200 GPM TRUCK FILL)	1	EA
35	INSTALL 12" WATER LINE, ANMA C900, CL200, PVC PIPE PER I.R.W.D. STD. W-11.	1,921	LF
38	REMOVE EXISTING BLIND FLANGE.	1	EA
39	INSTALL 12" CROSS WITH THRUST BLOCK PER I.R.W.D. STD. W-12 (CAP NORTH AND WEST ENDS WITH BLIND FLANGE).	1	EA
41	INSTALL 12" X 8" TEE WITH THRUST BLOCK PER DETAIL ON SHEET CA.	1	EA
45	INSTALL 12" BUTTERFLY VALVE PER I.R.W.D. STD. W-7.	4	EA
47	INSTALL 4" BACKFLOW PREVENTER PER I.R.W.D. STD. W-20.	1	EA
51	INSTALL 4" GATE VALVE PER I.R.W.D. STD. W-7.	2	EA
54	INSTALL 12"-45" BEND AND THRUST BLOCK PER I.R.W.D. STD. W-12.	3	EA
56	INSTALL 1" AIR RELEASE & VACUUM RELIEF VALVE ASSEMBLY PER I.R.W.D. STD. W-10.	1	EA
56	INSTALL 1" SERVICE PER I.R.W.D. STD. W-1 FOR SITE "B" IRRIGATION. (30.8 GPM)	1	EA
57	INSTALL 12" WYE AND THRUST BLOCK PER I.R.W.D. STD. W-12 CAP EAST END WITH BLIND FLANGE.	1	EA
58	INSTALL BLOW OFF VALVE PER I.R.W.D. STANDARD W-9.	1	EA
59	INSTALL 8" GATE VALVE PER I.R.W.D. STD. W-7.	1	EA
60	INSTALL 8" WATER LINE ANMA C900, CLASS 200, PVC PIPE PER I.R.W.D. STD. W-11.	20	LF
61	INSTALL 12" TEE AND THRUST BLOCK PER I.R.W.D. STD. W-12.	1	EA
62	INSTALL 4" WATER LINE ANMA C900, CLASS 200, PVC PIPE PER I.R.W.D. STD. W-11.	16	LF

NOTE TO CONTRACTOR

QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT QUANTITIES INVOLVED.

DATE: 10/21/99

JOB No.

98-47

SHEET

1

OF 7 SHEETS

BASIS OF BEARINGS

The bearings shown herein are based upon the Orange County Surveyor's 1988 Adjustment of NAD83 (Epoch 1988.0) California coordinate System (CCS83), Zone VI. The bearings shown are based upon the bearing between OCS GPS "1-5-2" and the OCS marker stamped "5-88 R4" being North 85.29°08' West, per Record of Survey No. 90-1075, R.S.B. 128/1-12.

BENCH MARK

Eastern Transportation Corridor Control Point:
Approx. 30' NW from end of bridge over Laguna Fwy. on the C.L. of Irvine Center Dr., in the median a 3 1/4" alum. disk in concrete stamped "Johnson & Frank PLS 4215-City of Irvine".
ELEV. 225.98' ADJUST TO 228.31'

(NOTE: ELEVATION ADJUSTED TO 228.31' TO MATCH NAVD83/1995 ADJUSTMENT)

IRVINE RANCH WATER DISTRICT
APPROVAL OF WATER, SEWER & RECLAIMED WATER FACILITIES
CODE 1043

APPROVED BY: [Signature] DATE: 10/21/99

SUPERVISED BY: [Signature] DATE: 10/21/99

REVIEWED BY: [Signature] DATE: 10/21/99

NO.	DATE	REVISIONS
7	12/14/99	SEE SHEETS 2 AND 7.
8	12/14/99	SEE SHEETS 4 AND 7.
9	11/24/99	SEE SHEET 2 (Revise Offset Dimension)
10	11/19/99	SEE SHEETS 2 AND 3.

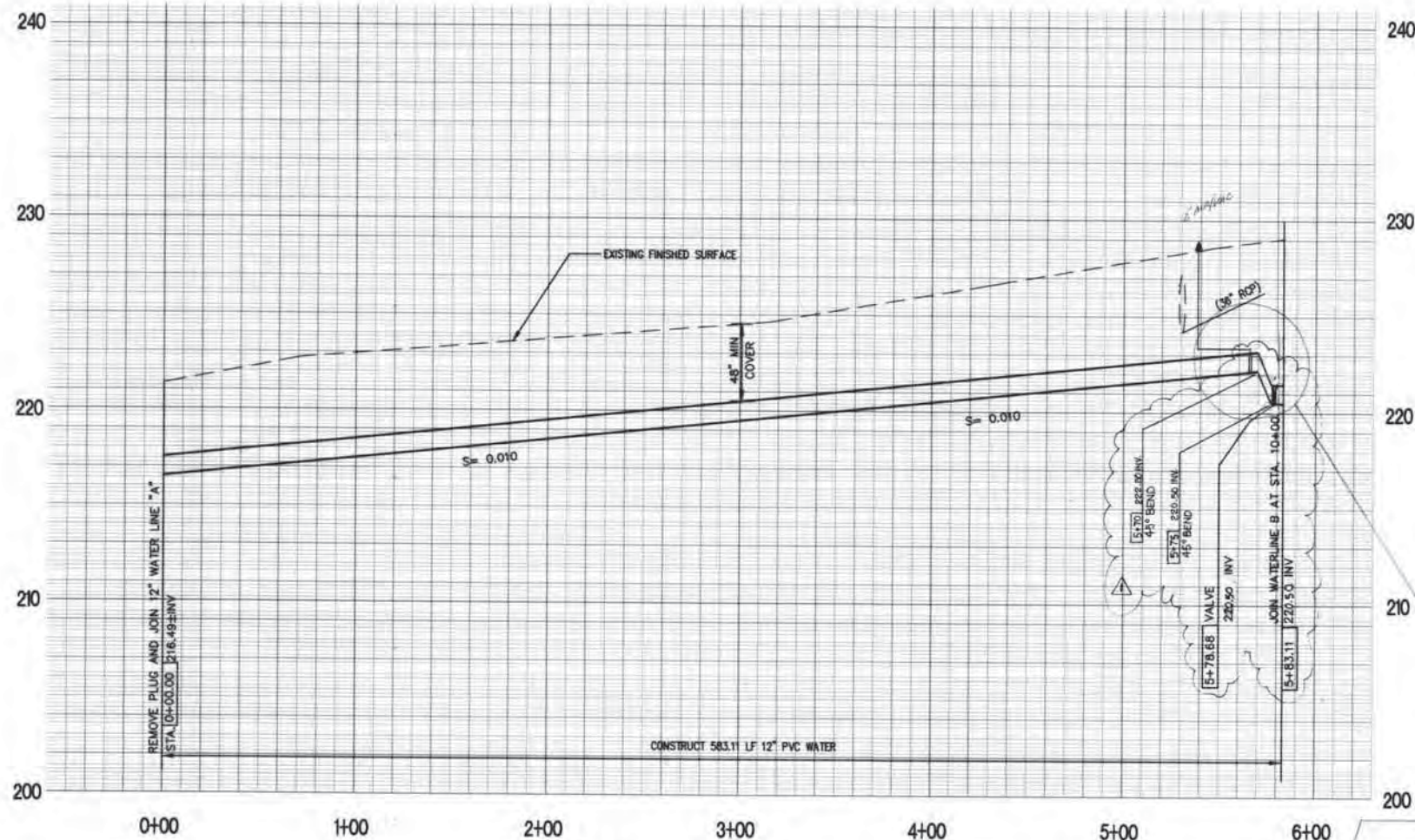
REVISIONS



PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
2880 BACHTHUR COURT, SUITE 200, IRVINE, CA 92614
(949) 453-1234 FAX (949) 453-1235
Michael J. Parnell 10/21/01 57144
CIVIL ENGINEER LICENSE #12 EXP. DATE

TITLE SHEET

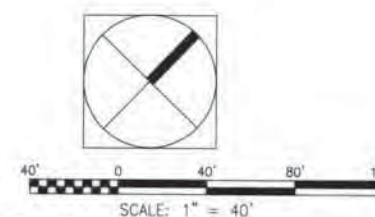
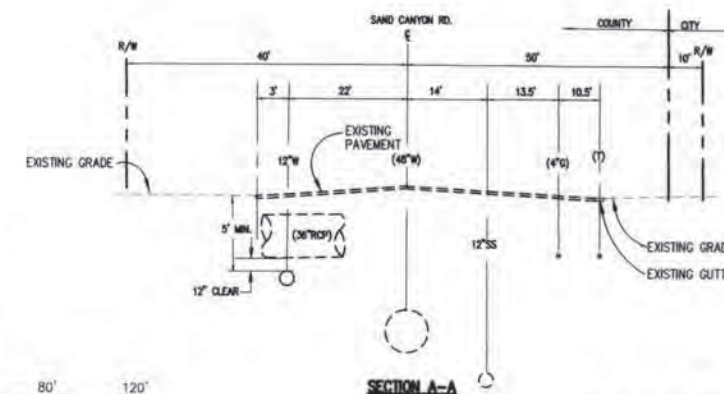
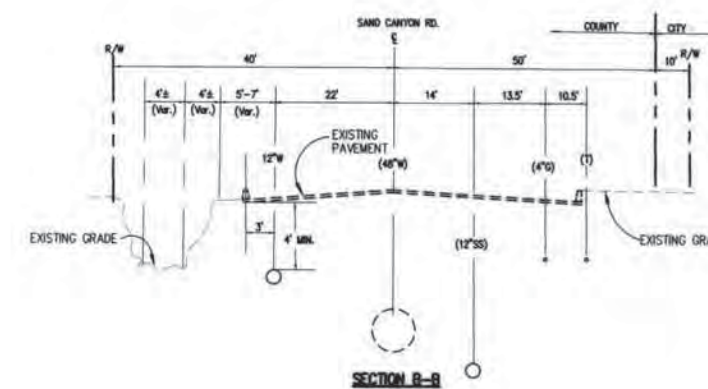
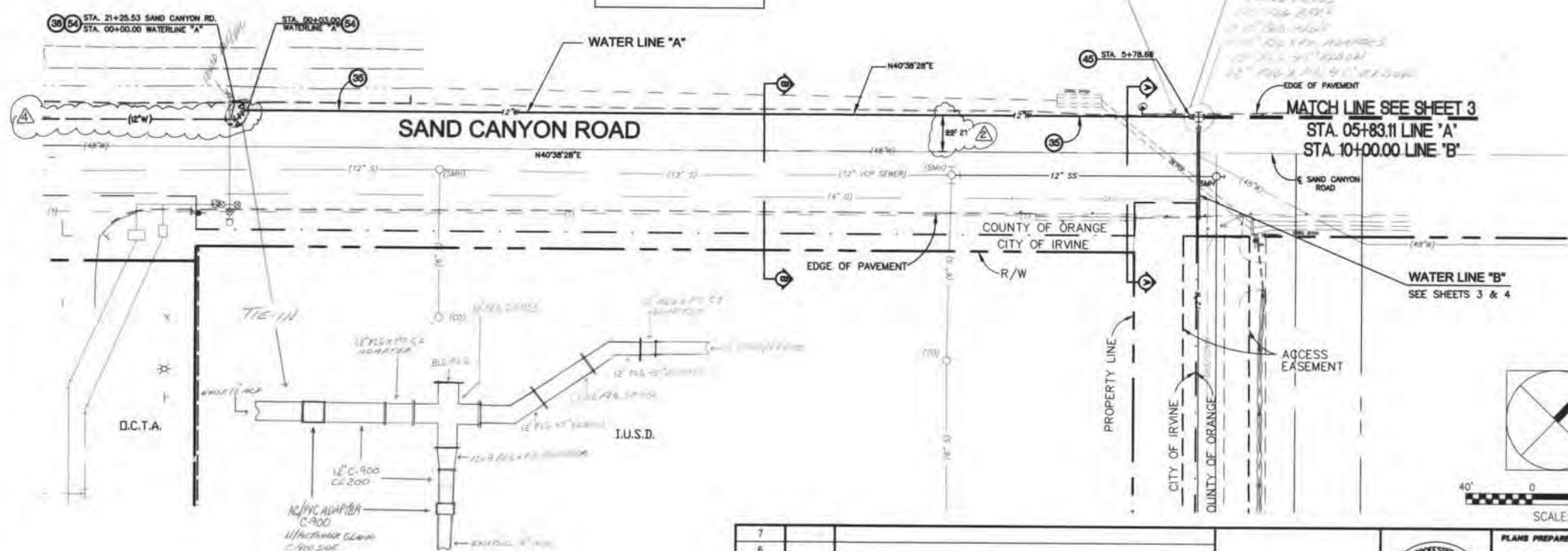
IRVINE RANCH WATER DISTRICT



WATER LINE "A"
SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

WATER CONSTRUCTION NOTES:

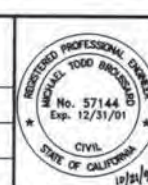
- 35 INSTALL 12" WATER LINE, ANWIA C900, CL200, PVC PIPE PER IRWD STD. W-11.
- 38 REMOVE EXISTING BLIND FLANGE.
- 45 INSTALL 12" BUTTERFLY VALVE PER I.R.W.D. STD. W-7.
- 54 INSTALL 12"-45° BEND AND THRUST BLOCK PER I.R.W.D. STD. W-12.



DATE: 10/21/99

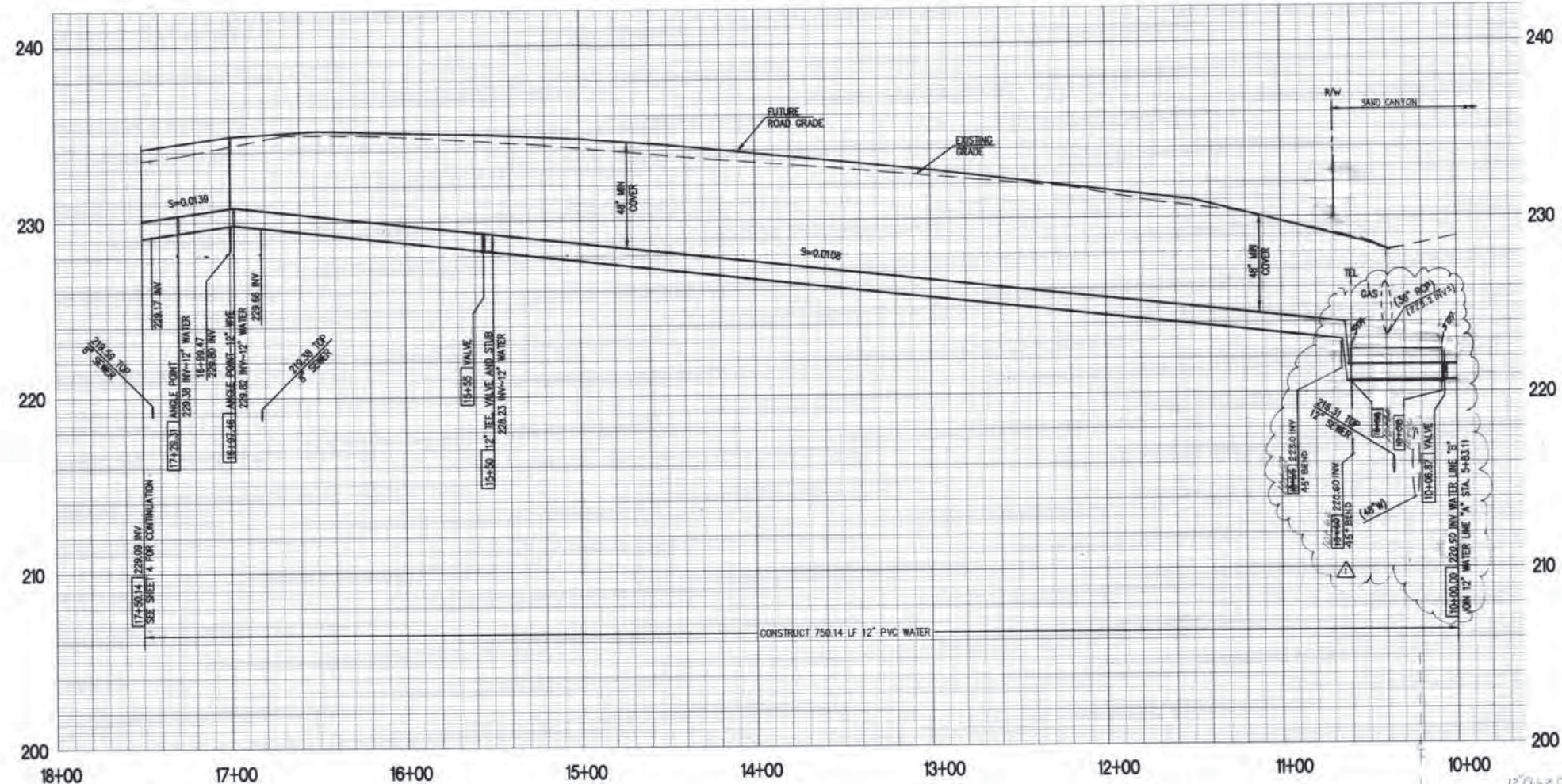
7		
6		
5		
4	12/14/99	REVISED P.O.C. LOCATION
3	11/29/99	REVISED OFFSET DIMENSION
2	11/19/99	ADDED STEEL CASING, CROSSING SAND CANYON
1		
NO.	DATE	REVISIONS

DRAWN BY:	DATE
DESIGNED BY:	DATE
CHECKED BY:	DATE



PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
4000 BUCKLEBURY COURT, SUITE 200, NEWPORT BEACH, CA 92660
(949) 260-1900 FAX (949) 260-1907
Michael J. Ekin and 57144 12/31/01
CIVIL ENGINEER LICENSE NO. EXP. DATE

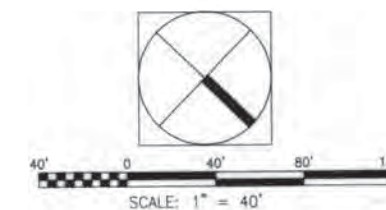
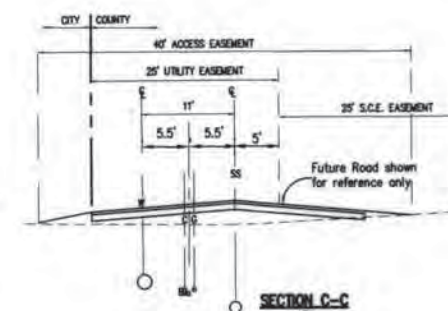
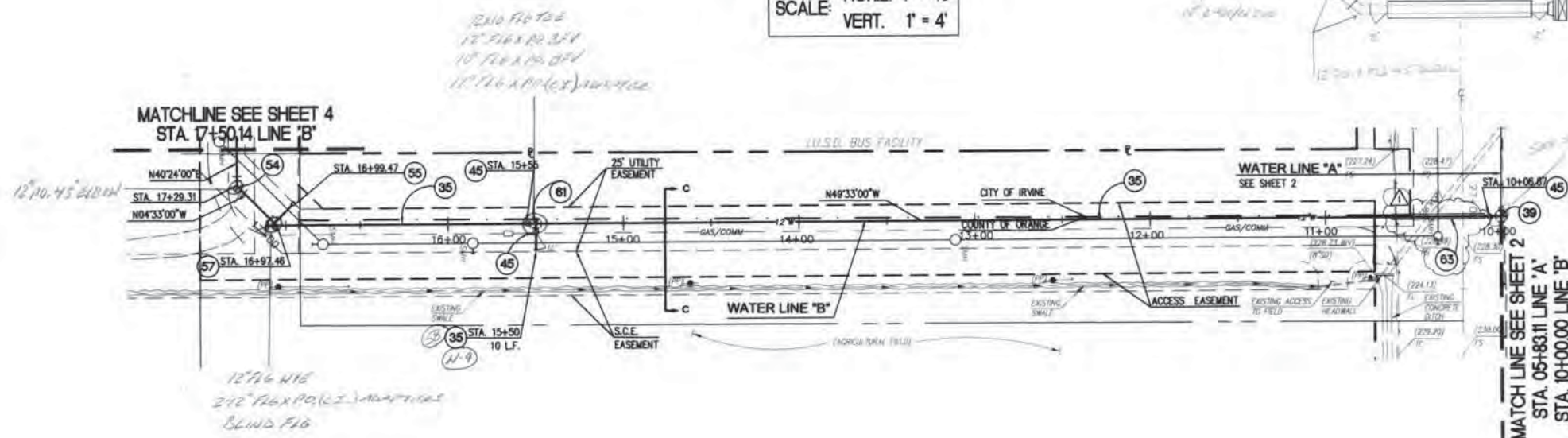
WATER PLAN & PROFILE		JOB No.
		98-47
		SHEET
		2
IRVINE RANCH WATER DISTRICT		OF 7 SHEETS



WATER LINE "B"

SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

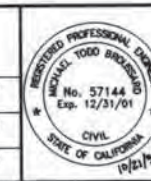
- WATER CONSTRUCTION NOTES:**
- 35 INSTALL 12" WATER LINE, AWWA C900, CL200, PVC PIPE PER IRWD STD W-11.
 - 39 INSTALL 12" CROSS WITH THRUST BLOCK PER I.R.W.D. STD. W-12. (CAP NORTH AND WEST ENDS WITH BLIND FLANGE).
 - 45 INSTALL 12" BUTTERFLY VALVE PER I.R.W.D. STD. W-7.
 - 54 INSTALL 12"-45° BEND AND THRUST BLOCK PER I.R.W.D. STD. W-12.
 - 55 INSTALL 1" AIR RELEASE & VACUUM RELIEF VALVE ASSEMBLY PER I.R.W.D. STD. W-10.
 - 57 INSTALL 12" WYE AND THRUST BLOCK PER I.R.W.D. STD. W-12 CAP EAST END WITH BLIND FLANGE.
 - 61 INSTALL 12" TEE AND THRUST BLOCK PER I.R.W.D. STD. W-12.
 - 63 INSTALL 20" STEEL CASING. *Rev. 20" STD W-13*



DATE: 10/21/99

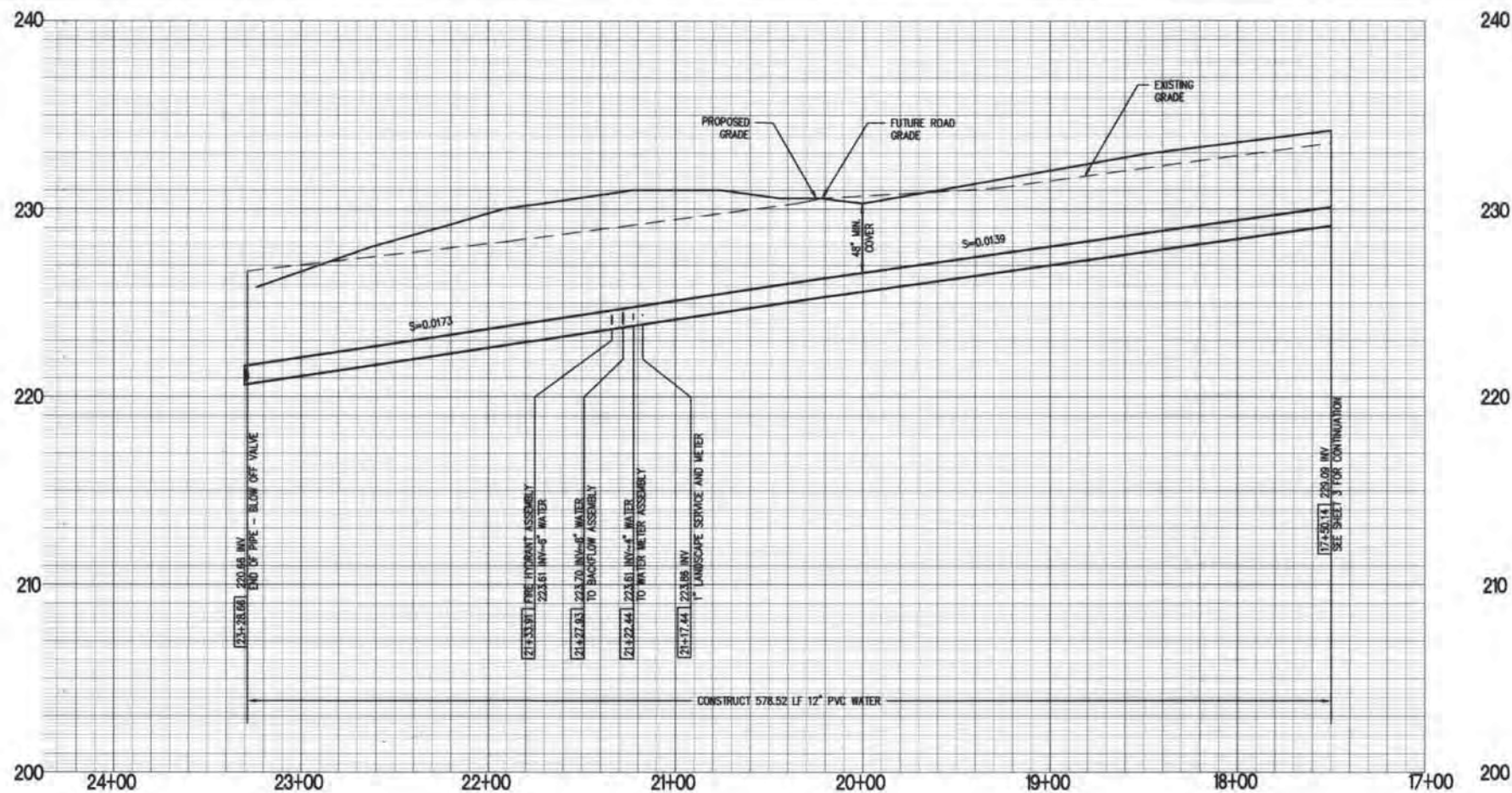
7		
6		
5		
4		
3		
2		
1	11/19/99	ADDED STEEL CASING, CROSSING SAND CANYON
NO.	DATE	REVISIONS

DRAWN BY: DATE
DESIGNED BY: DATE
CHECKED BY: DATE



PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
4800 SOUTHWEST COURT, SUITE 200, WESTPORT BEACH, CA 90590
(949) 265-1025 FAX (949) 265-1027
Michael J. Gramann 57144 12/2/01
CIVIL ENGINEER LICENSE NO. EXP. DATE

WATER PLAN & PROFILE STA. 10+00.00 TO STA. 17+50.14		JOB No.
		98-47
IRVINE RANCH WATER DISTRICT		SHEET
		3
		OF 7 SHEETS

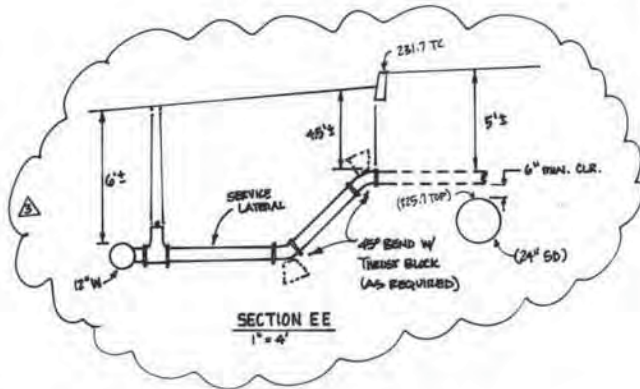
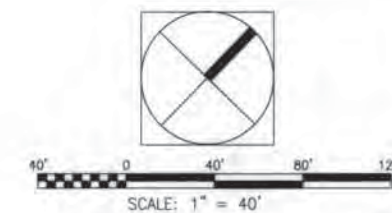
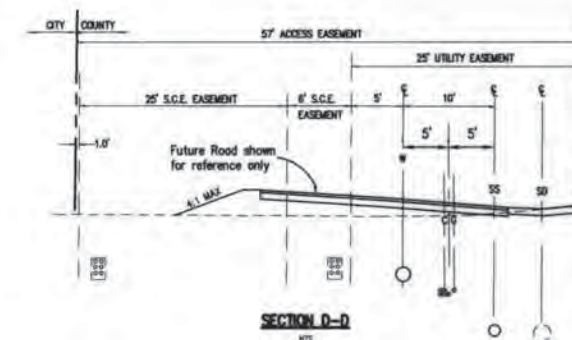
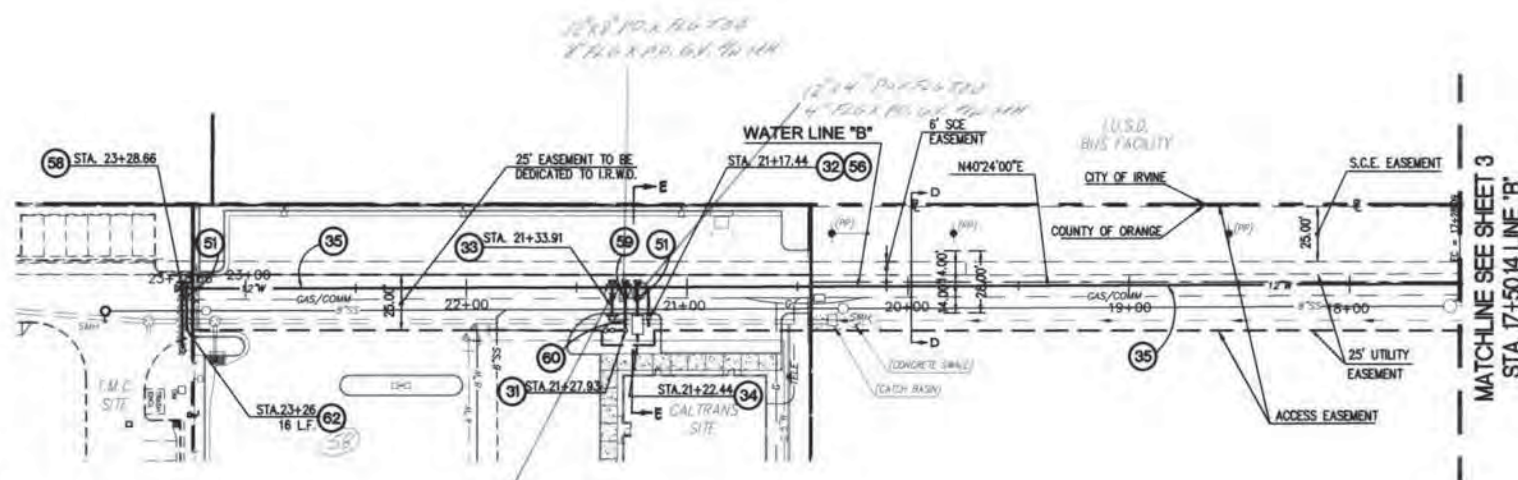


WATER LINE "B"

SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

WATER CONSTRUCTION NOTES:

- (31) INSTALL 8" DOUBLE CHECK BACKFLOW ASSEMBLY PER I.R.W.D. STD. W-16 WITH FIRE DEPARTMENT CONNECTION.
- (32) 1" BACKFLOW PREVENTER PER I.R.W.D. STD. W-20 FOR IRRIGATION USE.
- (33) INSTALL FIRE HYDRANT ASSEMBLY PER I.R.W.D. STD. W-6.
- (34) INSTALL 4" SERVICE AND METER PER I.R.W.D. STD. W-17 FOR SITE "B" (53 GPM DOMESTIC) (200 GPM TRUCK FILL).
- (35) INSTALL 12" WATER LINE, AWWA C900, CL200, PVC PIPE PER I.R.W.D. STD W-11.
- (51) INSTALL 4" GATE VALVE PER I.R.W.D. STD. W-7.
- (56) INSTALL 1" SERVICE PER I.R.W.D. STD. W-1 FOR SITE "B" IRRIGATION. (30.8 GPM)
- (58) INSTALL BLOW OFF VALVE PER I.R.W.D. STD. W-9.
- (59) INSTALL 8" GATE VALVE PER I.R.W.D. STD. W-7.
- (60) INSTALL 8" WATER LINE, AWWA C900, CL200, PVC PIPE PER I.R.W.D. STD W-11.
- (62) INSTALL 4" WATER LINE, AWWA C900, CL200, PVC PIPE PER I.R.W.D. STD W-11.



NO.	DATE	REVISIONS
7		
6		
5		
4		
4	12/3/99	ADDED SECTION EE
2		
1		

DRAWN BY:	DATE:
DESIGNED BY:	DATE:
CHECKED BY:	DATE:



PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
2000 BACAPUR COURT, SUITE 200, NEWPORT BEACH, CA 92660
(949) 260-1500 FAX (949) 260-1507

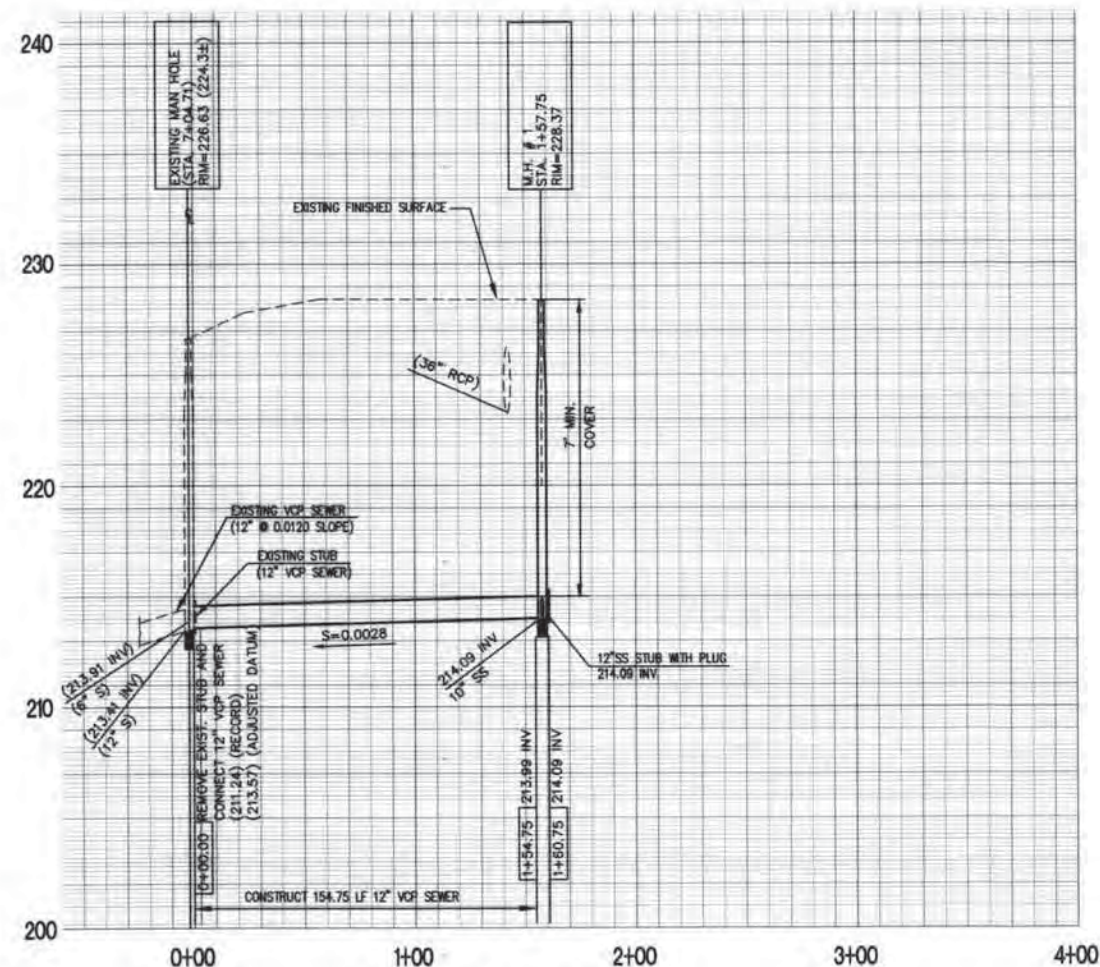
Michael Todd Boudreau 57144 12/3/01
CIVIL ENGINEER LICENSE NO. EXP. DATE

WATER PLAN & PROFILE
STA. 17+50.14 TO STA. 23+28.66

IRVINE RANCH WATER DISTRICT

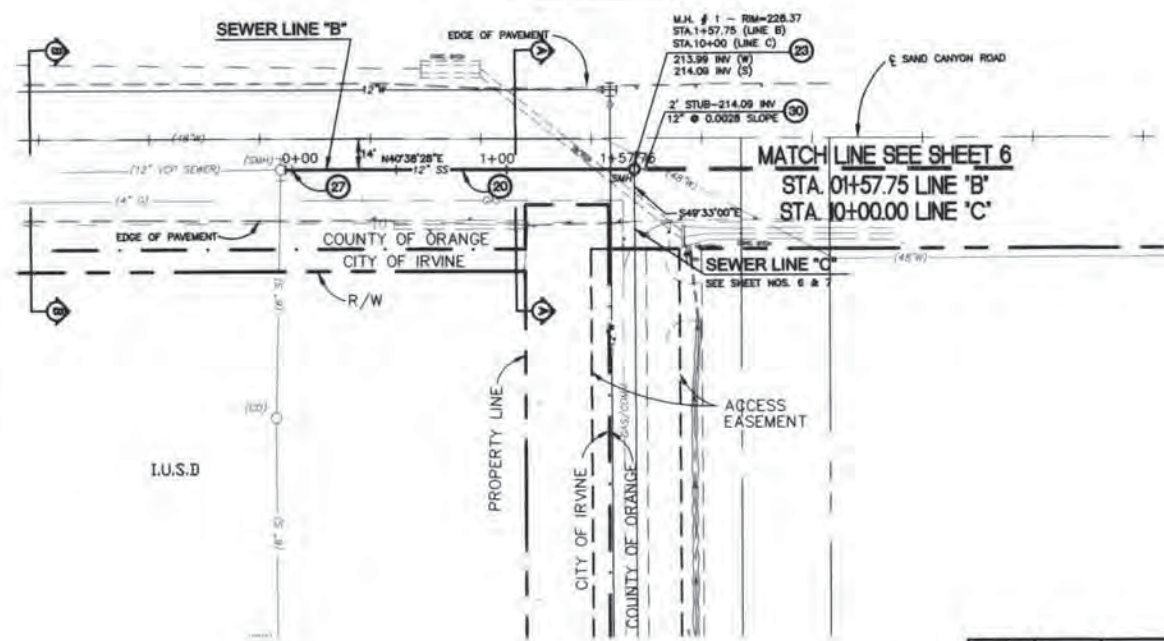
DATE: 10/21/99

JOB No.
98-47
SHEET
4
OF 7, SHEETS

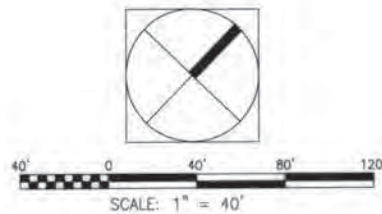
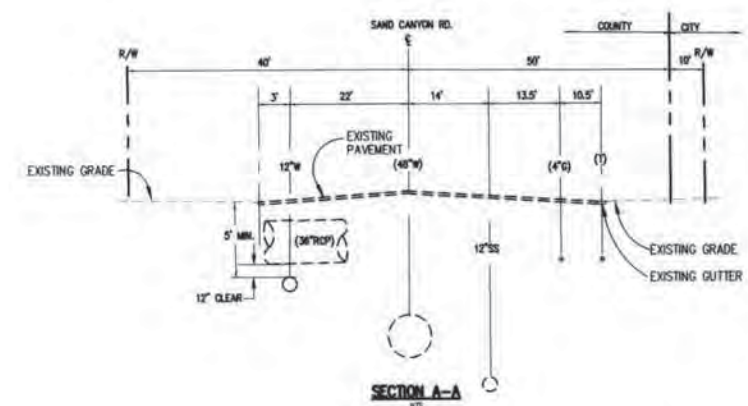
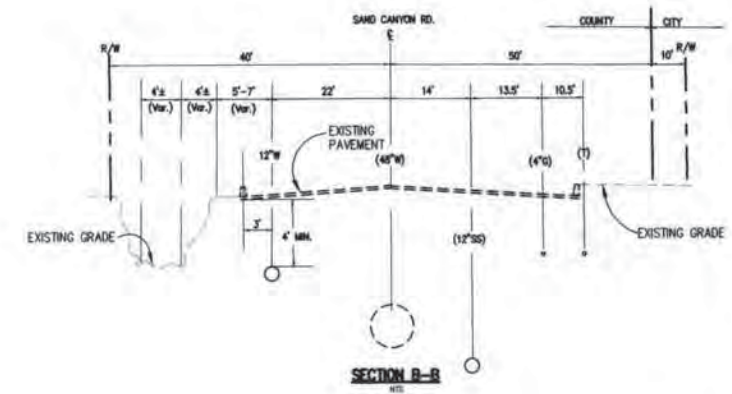


SEWER LINE "B"

SCALE:
HORIZ. 1" = 40'
VERT. 1" = 4'



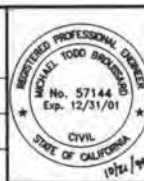
- SEWER CONSTRUCTION NOTES:**
- 20—INSTALL 12" VCP SEWER LINE PER I.R.W.D. STD. S-8.
 - 23—CONSTRUCT 48" SEWER MANHOLE (PUBLIC) PER I.R.W.D. STD. S-1.
 - 27—REMOVE EXISTING STUB AND CONNECT 12" VCP TO EXISTING SEWER MANHOLE.
 - 30—PLUG 12" SEWER STUB.



DATE: 10/21/99

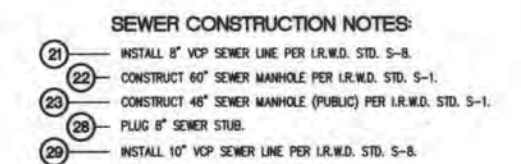
7		
6		
5		
4		
3		
2		
1		
NO.	DATE	REVISIONS

DRAWN BY: _____ DATE: _____
DESIGNED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

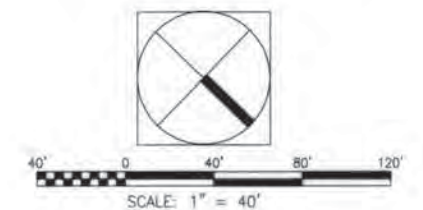
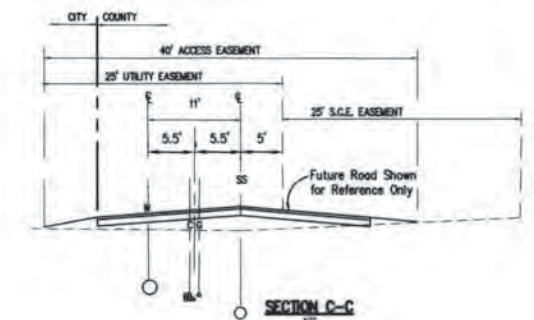
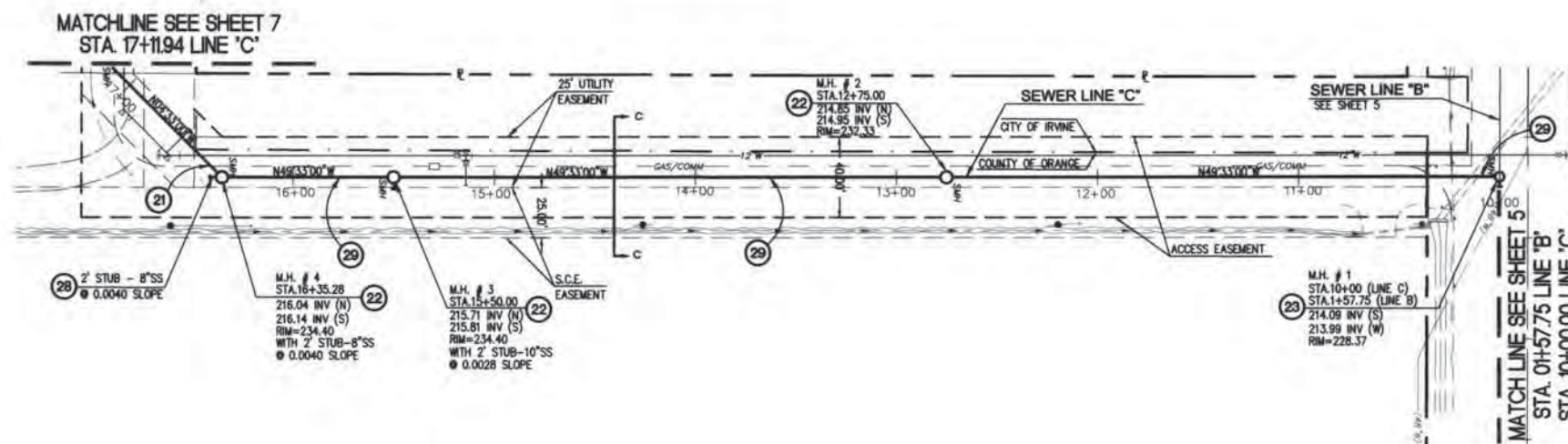


PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
4000 VAN CANTERBURY DRIVE, SUITE 200, NEWPORT BEACH, CA 92660
(949) 260-1000 FAX (949) 260-1007
Civil Engineer: *Michael Binkley* 57144 12/01/01
LICENSE NO. EXP. DATE

SEWER PLAN & PROFILE		JOB No.
		98-47
IRVINE RANCH WATER DISTRICT		SHEET
		5
		OF 7 SHEETS

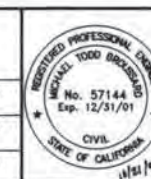


SCALE:
HORIZ. 1" = 40'
VERT. 1" = 4'



7		
6		
5		
4		
3		
2		
1		
NO	DATE	REVISIONS

DRAWN BY:	
DESIGNED BY:	
CHECKED BY:	



PLANS PREPARED BY:

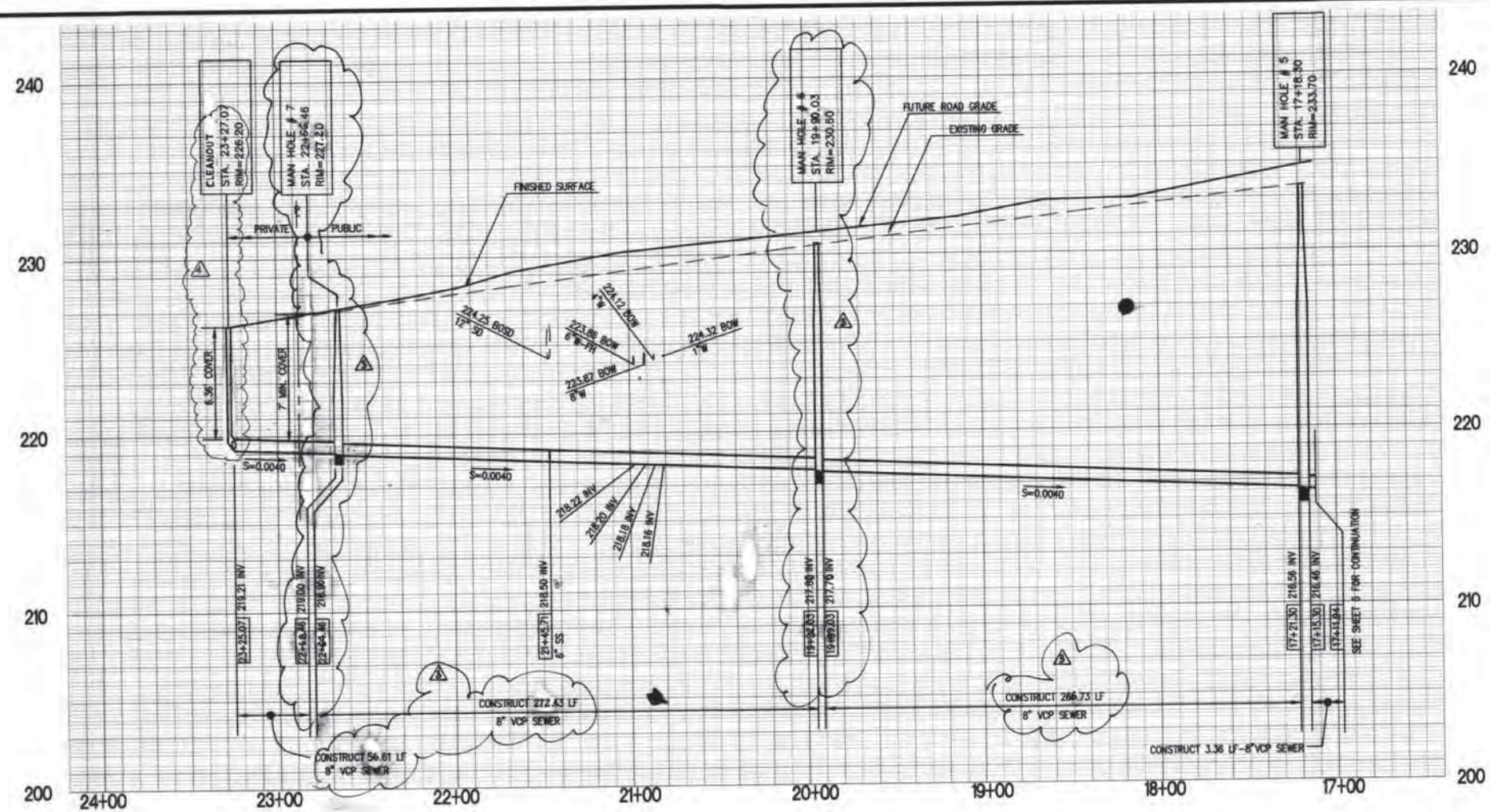
EKN Engineers / Planners / Surveyors
4885 MANCATAN COURT, SUITE 200, NEWPORT BEACH, CA 92660
(949) 265-1800 FAX (949) 265-1827

Michael W. Brann 57144 12/01/01
CIVIL ENGINEER LICENSE NO. EXP. DATE

SEWER PLAN & PROFILE
STA. 10+00.00 TO STA.17+11.94

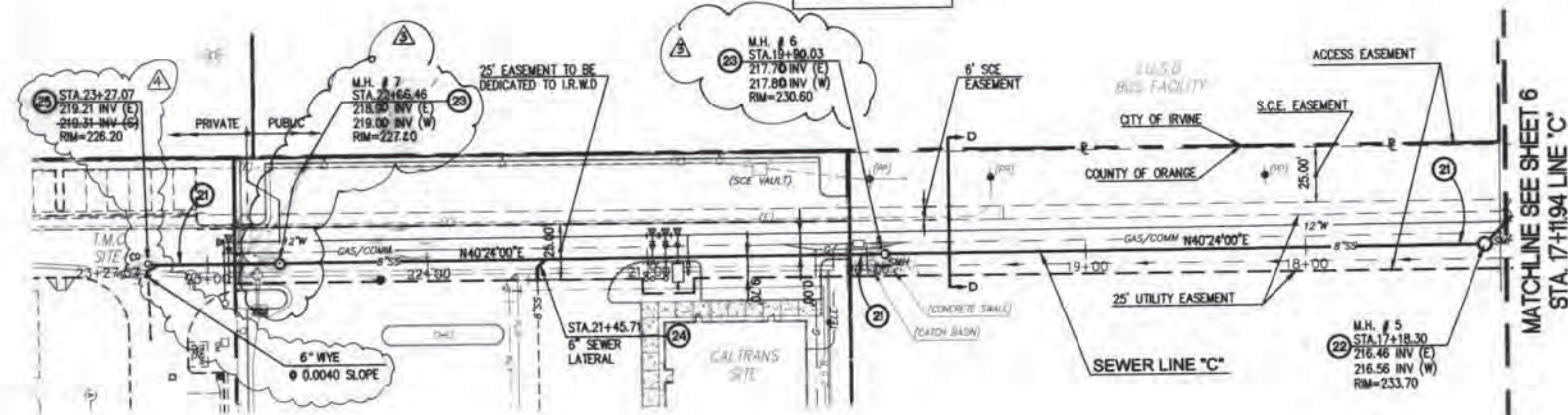
IRVINE RANCH WATER DISTRICT

JOB No.
98-47
SHEET
6
OF 7 SHEETS



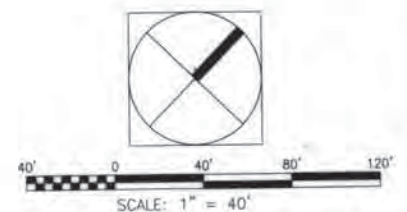
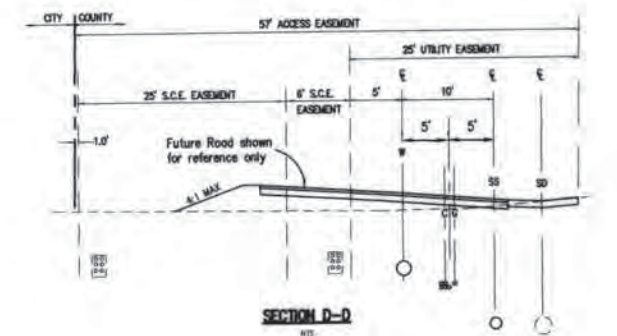
SEWER LINE "C"

SCALE:
HORIZ. 1" = 40'
VERT. 1" = 4'



SEWER CONSTRUCTION NOTES

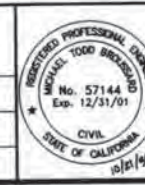
- 21 INSTALL 8" VCP SEWER LINE PER L.R.W.D. STD. S-8.
- 22 CONSTRUCT 60" SEWER MANHOLE PER L.R.W.D. STD. S-1.
- 23 CONSTRUCT 48" SEWER MANHOLE (PUBLIC) PER L.R.W.D. STD. S-1.
- 24 CONSTRUCT 6" VCP SEWER LATERAL PER L.R.W.D. STD. S-6.
- 25 PLUG 8" SEWER STUB.
- 26 INSTALL 8" x 6" WYE AND CLEANOUT PER L.R.W.D. STD. S-9.



DATE: 10/21/99

NO.	DATE	REVISIONS
7		
6		
5		
4	12/1/99	REVISED PRIVATE SMH TO CO
3	12/8/99	RELOCATED SMH'S #6 & 7
2		
1		

DRAWN BY: DATE
DESIGNED BY: DATE
CHECKED BY: DATE



PLANS PREPARED BY:
EKN Engineers / Planners / Surveyors
4400 GARDEN COURT, SUITE 200, IRVINE, CA 92618
(949) 265-1000 FAX (949) 265-1007
Michael J. Brumet 57144 12/30/01
CIVIL ENGINEER LICENSE NO. EXP. DATE

SEWER PLAN & PROFILE STA. 17+11.94 TO STA. 23+27.07		JOB No.
		98-47
IRVINE RANCH WATER DISTRICT		SHEET
		7
		OF 7 SHEETS

CONSTRUCTION PLANS

FOR THE

IRVINE RANCH WATER DISTRICT

ZONE III INTERTIE FOR IIC-EAST

PROJECT NO. 11320

DECEMBER 1982



B **Boule Engineering Corporation**
consulting engineers / architects
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505

APPROVED:
IRVINE RANCH WATER DISTRICT
DIRECTOR OF ENGINEERING & PLANNING

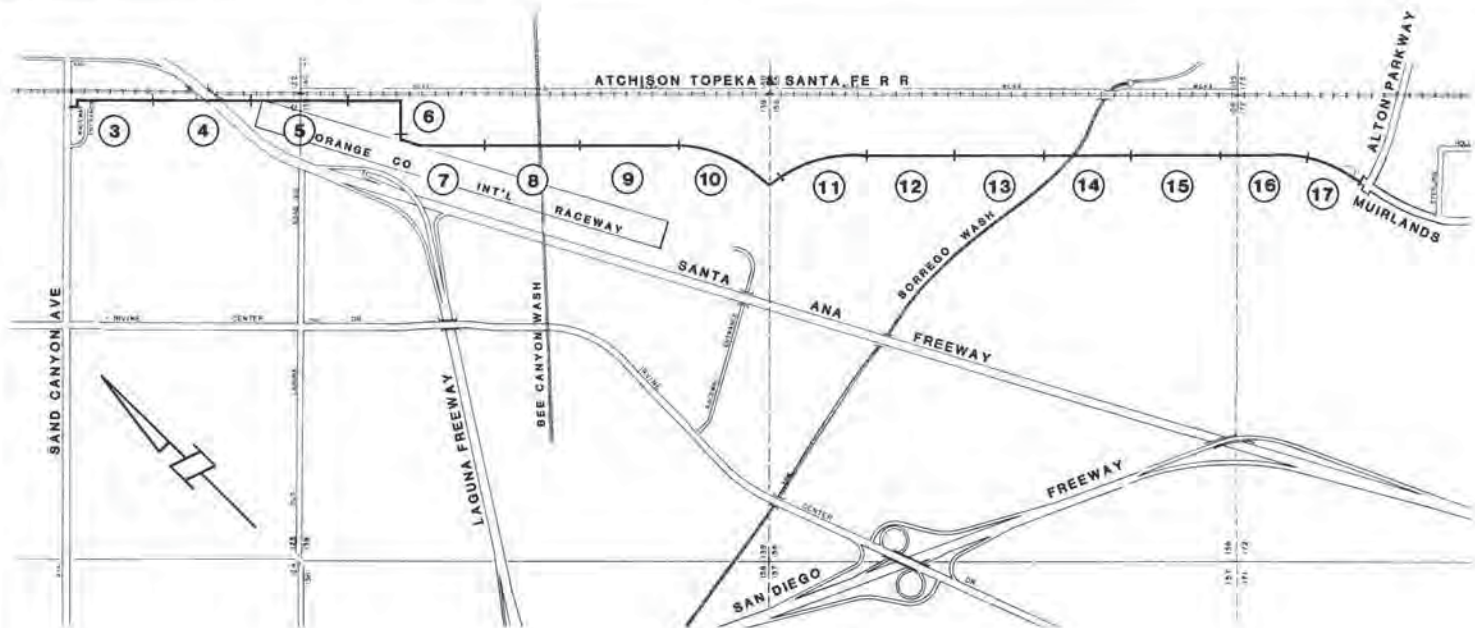
Ronald E. Young *January 13, 1983*
RONALD E. YOUNG R.C.E. 20992 DATE

RECORD DRAWING

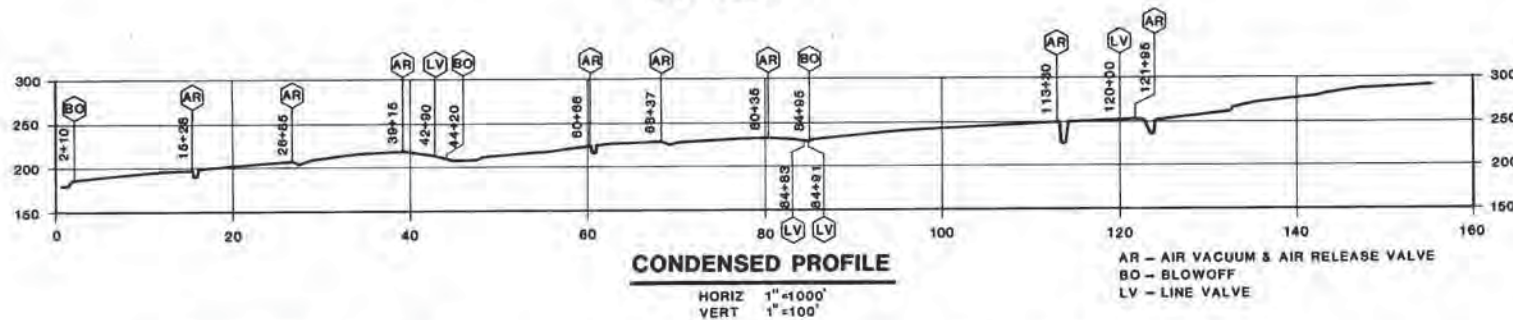
THIS IS A RECORD DRAWING OF THE FACILITIES SHOWN IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNERS WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. A FIELD CONDITION, WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIATION MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER OF THE UTILITIES INVOLVED.

386

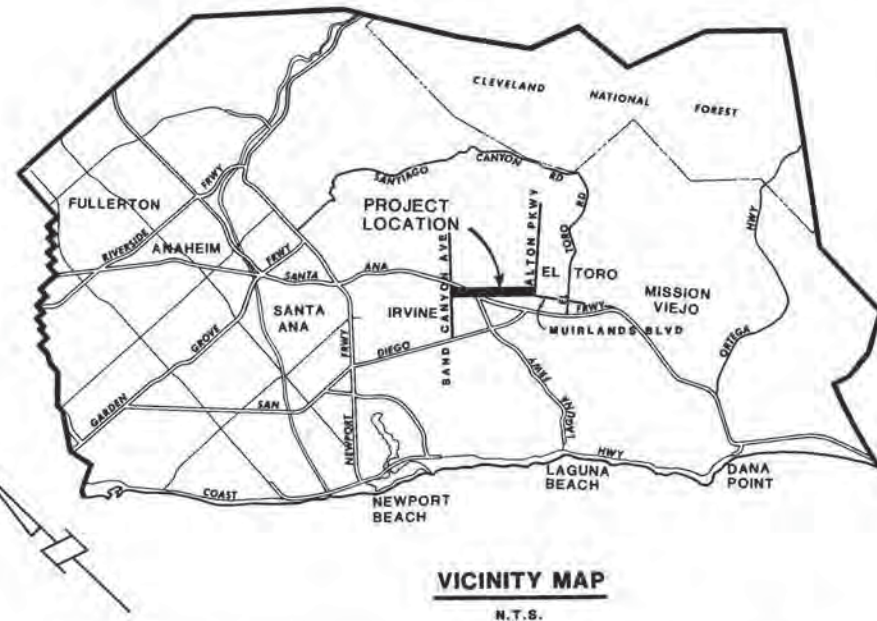
002



LOCATION MAP
SCALE 1"=1000'



CONDENSED PROFILE
HORIZ 1"=1000'
VERT 1"=100'



VICINITY MAP
N.T.S.

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS A DIRECT INVERSE BETWEEN ORANGE COUNTY TRIANGULATION STATION LC-22 (N 548,089.19, E 1,546,119.89) AND ORANGE COUNTY TRIANGULATION STATION LC-23 (N 543,066.66, E 1,551,813.01) AT BEARING N 48° 34' 51" W.

BENCH MARK

ELEVATIONS ARE BASED ON ORANGE COUNTY BENCH MARK N 130 1976 ADJUSTED ELEVATION OF 257.628, LOCATED 1.6 MILES SOUTHEAST ALONG THE ATCHISON, TOPEKA AND SANTA FE RAILWAY FROM THE STATION AT IRVINE; 0.5 MILE SOUTHEAST OF MILEPOLE 184 AT THE CROSSING OF AN ABANDONED PAVED ROAD, IN THE TOP OF THE SOUTHWEST END OF THE NORTHWEST CONCRETE ABUTMENT OF AN OLD RAILROAD BRIDGE (THE BRIDGE HAS BEEN COVERED WITH FILL, ALL THAT REMAINS ARE THE CONCRETE ABUTMENTS), 24 FEET SOUTHEAST OF THE CENTER LINE OF THE ROAD, 5.8 FEET SOUTHWEST OF THE SOUTHWEST RAIL, 5.0 FEET NORTHEAST OF THE EAST CORNER OF THE CONCRETE FOUNDATION FOR SIGNAL CONTROL BOX, 120 FEET EAST OF A LARGE WEIR BOX THAT IS 5 BY 10 FOOT, 20 FEET HIGH ABOUT 0.5 FOOT LOWER THAN THE TRACK.

TOPOGRAPHY IS BASED UPON AERIAL MAPPING FLOWN ON OCTOBER 1, 1982

LEGEND

- EXISTING UTILITY TYPE AND SIZE NOTED
- RIGHT-OF-WAY LINE
- X-X-X- EXISTING FENCE
- SEE DETAIL DETAIL NUMBER
- SHEET NUMBER

SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LOCATION MAP, INDEX
3-17	PLAN AND PROFILE
18-22	MISCELLANEOUS DETAILS

AGENCY CONTACTS

ALL INFORMATION RELATIVE TO THE LOCATION, TYPE, AND OPERATIONAL STATUS OF UTILITIES AND/OR IMPROVEMENTS WHICH APPEAR ON THESE PLANS WAS PROVIDED BY THE FOLLOWING RESPECTIVE OWNERS OR AGENCIES:

IRVINE RANCH WATER DISTRICT ATTN: TOM HOLLIMAN	714/833-1223
ENVIRONMENTAL MANAGEMENT AGENCY ATTN: ROBERT LIVINGSTON	714/834-6391
PACIFIC TELEPHONE ATTN: JEFF MERICKEL	714/951-0532
SAN DIEGO PIPELINE COMPANY ATTN: CHARLES TRUELOVE	213/629-6654
SOUTHERN CALIFORNIA GAS COMPANY ATTN: RICHARD BRANCH	714/634-3118
IRVINE COMPANY COORDINATION ATTN: LARRY SAMPLE	714/720-2370
IRVINE COMPANY AGRICULTURAL DIVISION ATTN: CLINT ODEM	714/544-0120
SOUTHERN CALIFORNIA EDISON COMPANY ATTN: JIM MELTON	714/973-5491
STATE OF CALIFORNIA DEPT. OF TRANSPORTATION ATTN: DON PERUZZI	714/639-6851 (7:30-9:00 AM)
ATCHISON TOPEKA & SANTA FE RAILWAY ATTN: ROGER ENGLE	213/267-5406
DEPARTMENT OF FISH AND GAME ATTN: JACK SPRUILL	213/590-5113
UNDERGROUND SERVICE ALERT (U.S.A.) UTILITY LOCATION MARKING	1-800-422-4133

RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

ABBREVIATIONS

A.B.	AGGREGATE BASE
A.R.	AIR VACUUM & AIR RELEASE VALVE
A.C.P.	ASBESTOS CEMENT PIPE
A.C.	ASPHALT CEMENT
B.C.	BEGINNING OF CURVE
B.O.	BLOW OFF
C.I.	CAST IRON
C.T.S.	CATHODIC TEST STATION
C.M.L. & C.	CEMENT MORTAR LINED & COATED
C.C.P.	CONCRETE CYLINDER PIPE
D.I.P.	DUCTILE IRON PIPE
EL.	ELEVATION
E.C.	END OF CURVE
H.P.	HIGH PRESSURE
H.P.I.	HORIZONTAL POINT OF INTERSECTION
INV.	INVERT
L.	LENGTH OF CURVE
P.I.	POINT OF INTERSECTION
P.V.C.	POLYVINYLCHLORIDE PLASTIC PIPE
R.	RADIUS
R.C.B.	REINFORCED CONCRETE BOX
R/W	RIGHT-OF-WAY
S	SLOPE IN FEET PER FOOT
STA.	STATION
S.P.	STEEL PIPE
T	TANGENT LENGTH
TEL.	TELEPHONE
T.O.P.	TOP OF PIPE
CL	CENTERLINE
Δ	DEFLECTION ANGLE

GENERAL NOTES

- UTILITIES AND SUBSTRUCTURES SHOWN HEREON ARE BASED ON THE LATEST AVAILABLE RECORDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXISTENCE AND LOCATION OF SAME.
- THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AFFECTED BY CONSTRUCTION AT LEAST TWO WORKING DAYS IN ADVANCE OF CONSTRUCTION.
- A MINIMUM SEPARATION OF 8 INCHES SHALL BE MAINTAINED BETWEEN THE TRANSMISSION MAIN AND ANY UTILITY LINE OR STRUCTURE CROSSING, UNLESS OTHERWISE INDICATED.
- ALL CONSTRUCTION SHALL BE DONE IN CONFORMANCE WITH THE REGULATIONS OF CAL-OSHA.
- STATIONING FOLLOWS CENTERLINE OF PIPE.
- CONTRACTOR SHALL NOTIFY IRWD 72 HOURS PRIOR TO COMMENCING TIE-IN OPERATIONS.
- WATER VALVES SHALL BE OPERATED ONLY BY IRWD PERSONNEL.

NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.
				DRAWN - A.E.B.
				CHECK - M.L.C.
9-83		RECORD DRAWINGS		

Boule Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505

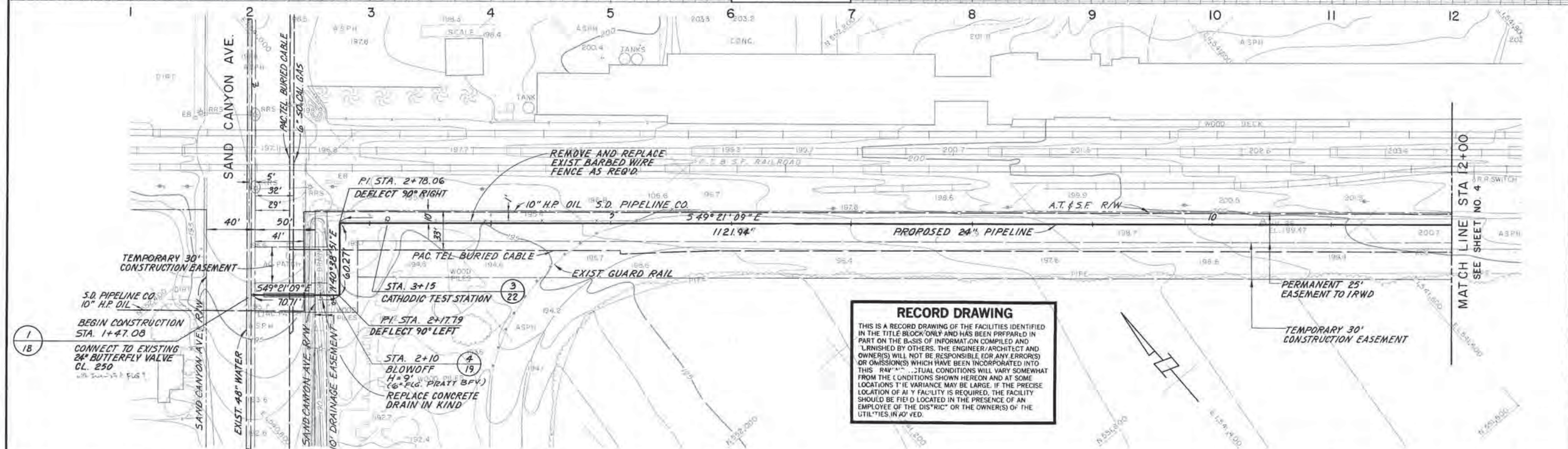
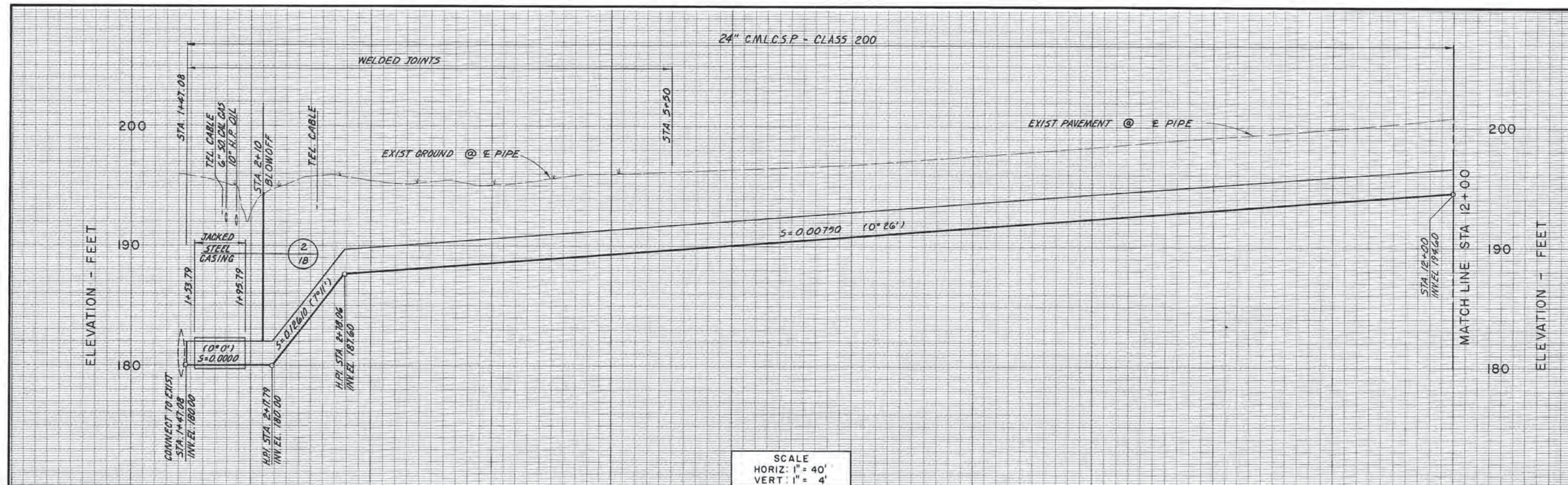


Karl W. Skel RCE 30861 DATE 1/12/83
PROJECT ENGINEER
C. Russell Hulce RCE 17139 DATE 1/12/83
PROJECT MANAGER

IRVINE RANCH WATER DISTRICT
**ZONE III INTERTIE
FOR IIC-EAST**
PROJECT NO. 11320

**LOCATION MAP,
VICINITY MAP,
AND INDEX**

SHEET
2
OF
22



RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. FIELD CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THERE MAY BE LARGE VARIATIONS. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

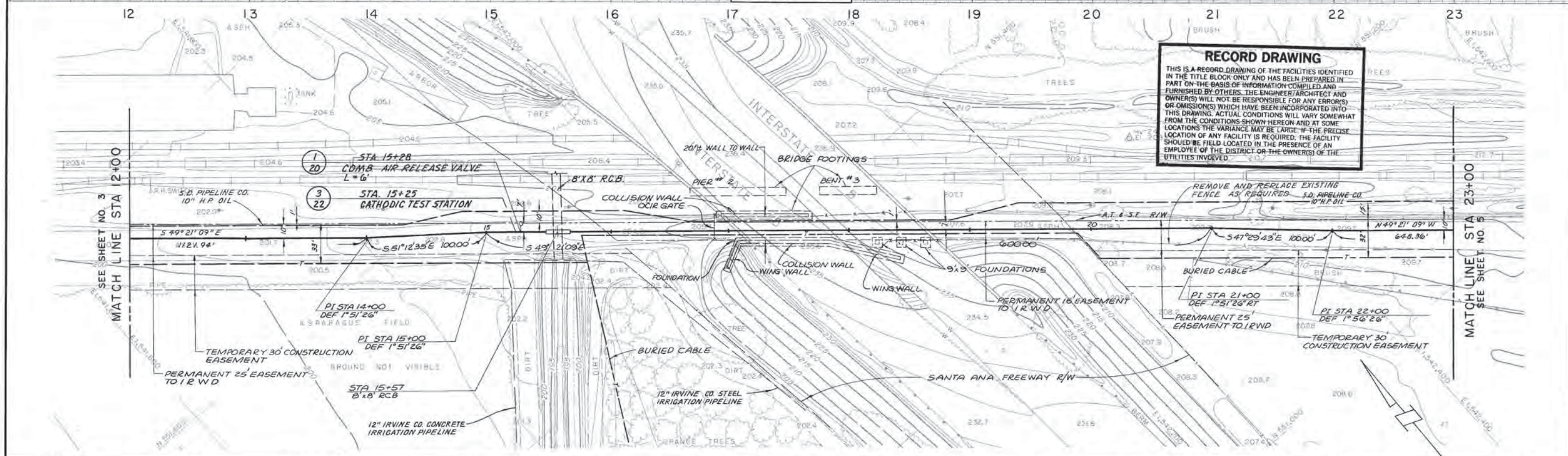
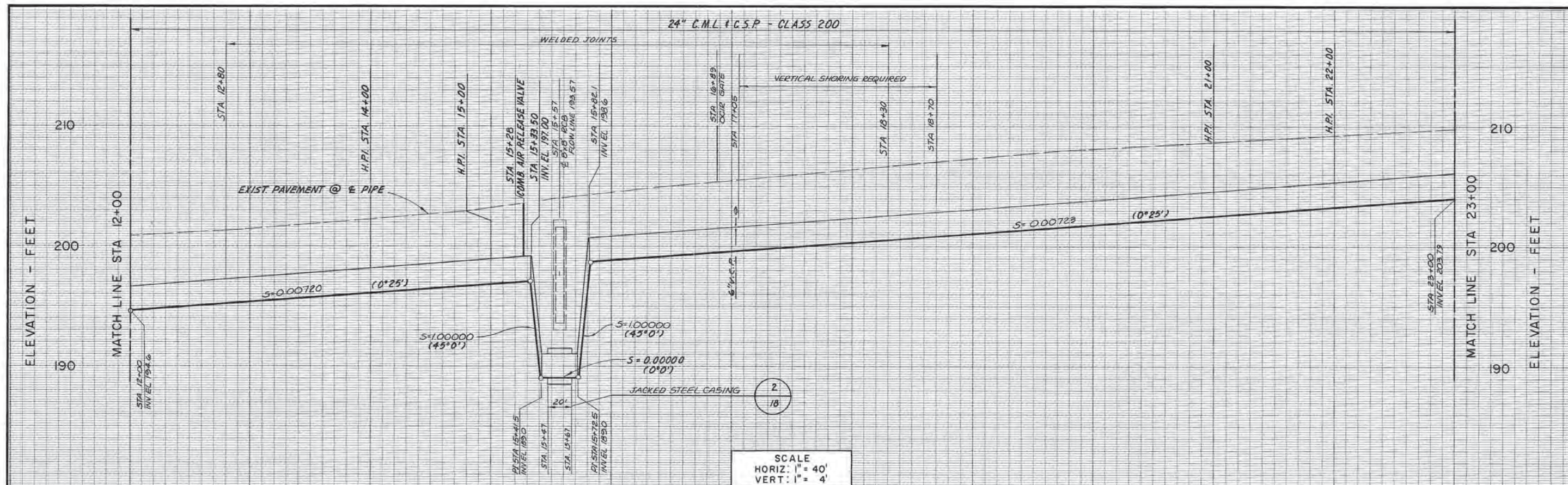
NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE	IRVINE RANCH WATER DISTRICT	ZONE III INTERTIE FOR IIC-EAST	PROJECT NO. 11320	PLAN AND PROFILE	STA 1+47.08 TO STA 12+00	SHEET
1	83	RECORD DRAWINGS		K.W.S.	A.E.B.	M.L.C.	Karl W. Jabel	1/12/83	C. Russell Hulse	1/12/83	IRVINE RANCH WATER DISTRICT	ZONE III INTERTIE FOR IIC-EAST	PROJECT NO. 11320	PLAN AND PROFILE	STA 1+47.08 TO STA 12+00	3 OF 22

Boyle Engineering Corporation
 1501 Quail Street
 Newport Beach, California 92663
 714 / 752-0505





386

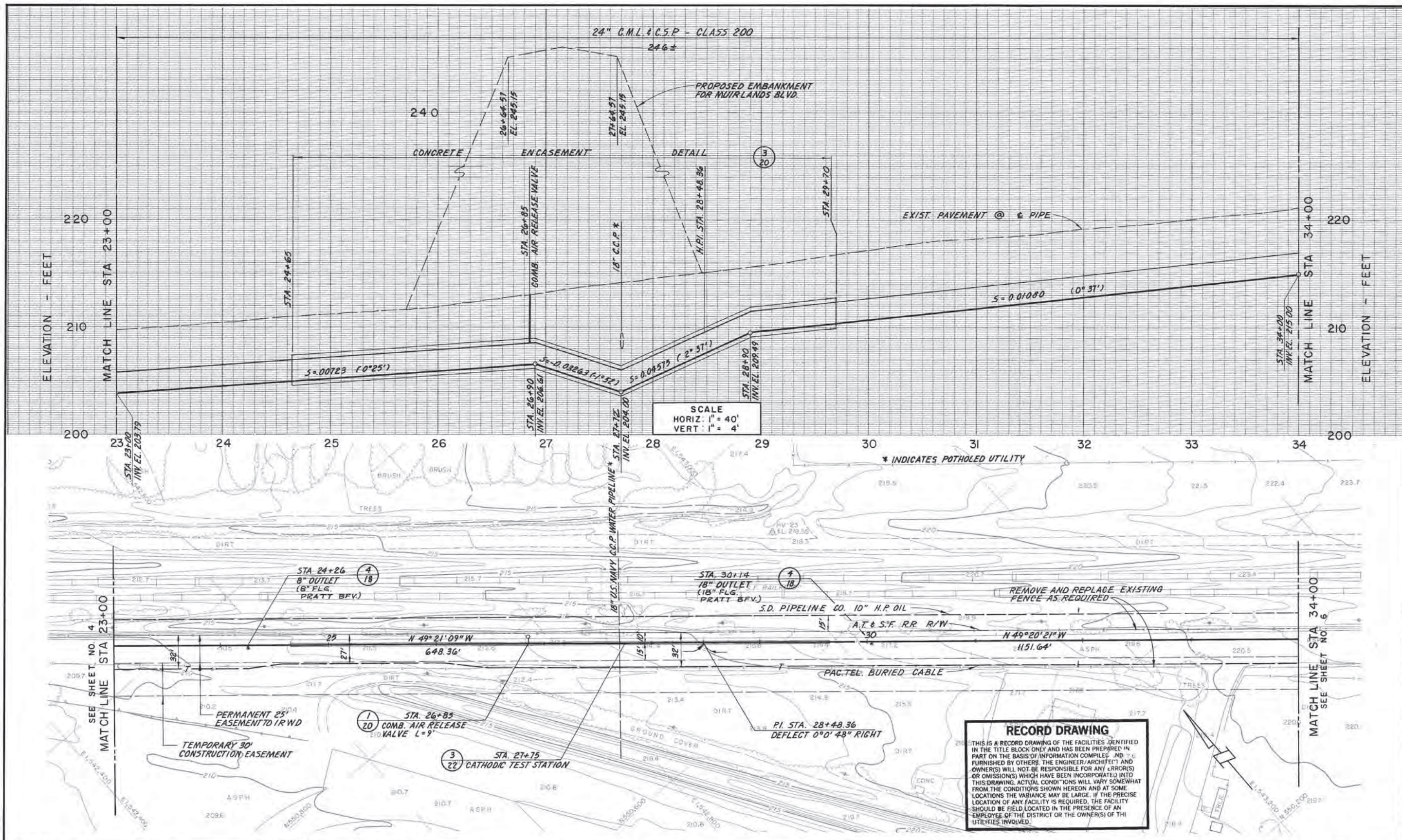
386



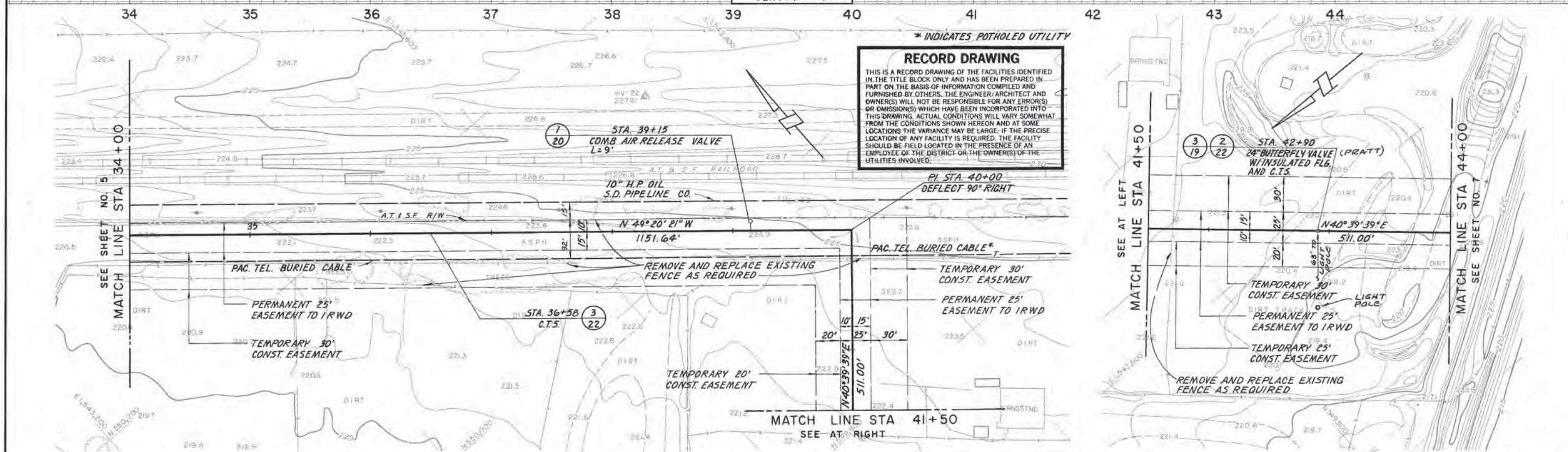
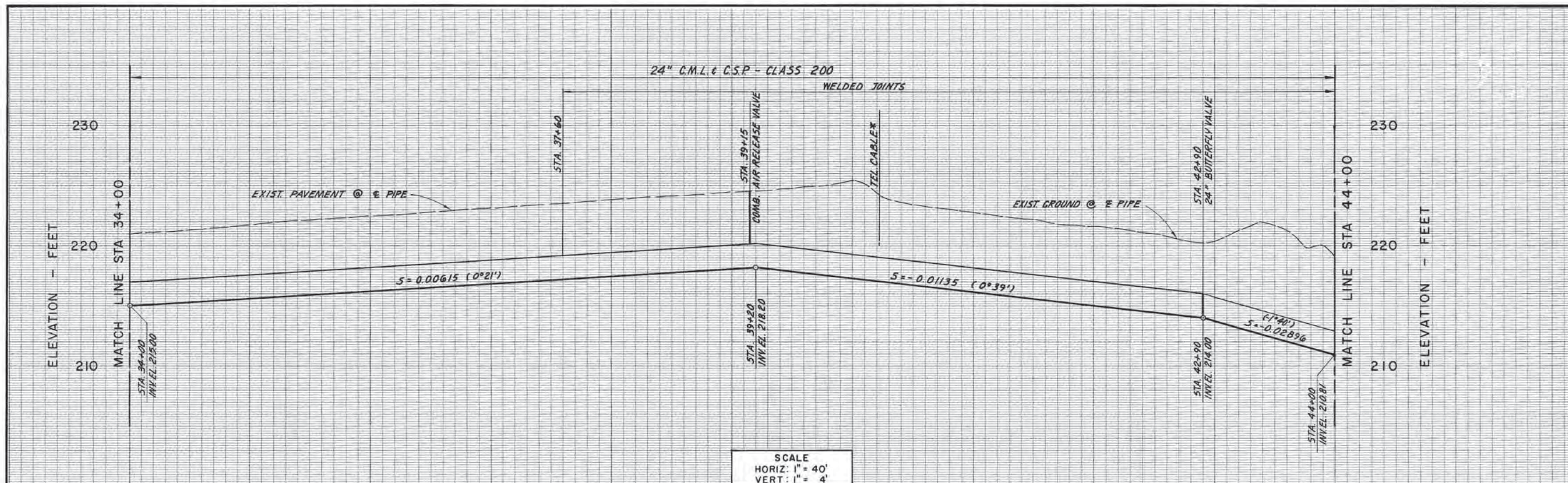
RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNERS WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNERS OF THE UTILITIES INVOLVED.

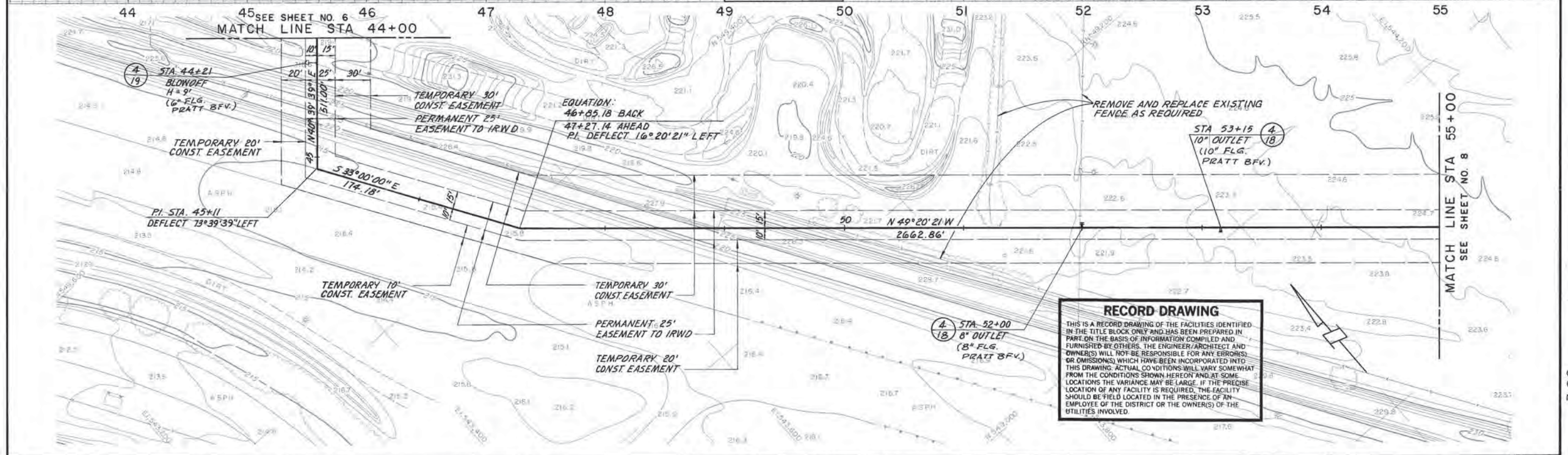
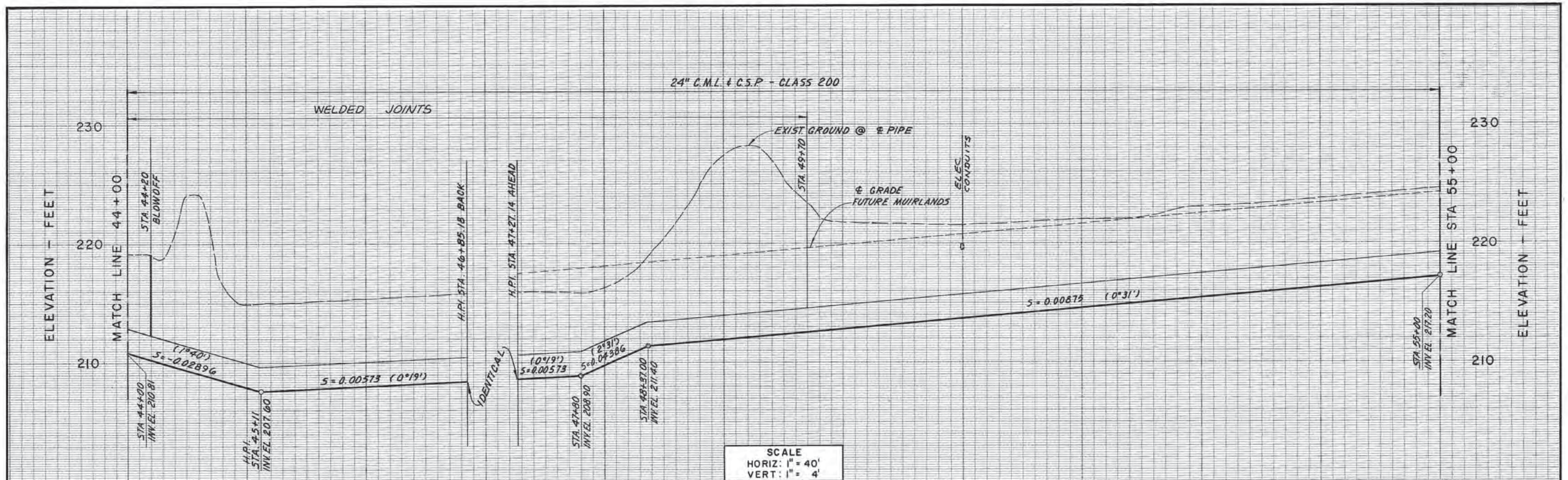
NO.	DATE	REVISIONS	APPROVED	DESIGN - KWS	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 Irvine Ranch Water District	Karl W. Jekel PROJECT ENGINEER DATE 1/12/87	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 12+00 TO STA 23+00	SHEET 4 OF 22
				DRAWN - H.F.			C. Russell Hulse PROJECT MANAGER DATE 1/12/83			
				CHECK - MC						
9-83		RECORD DRAWINGS								





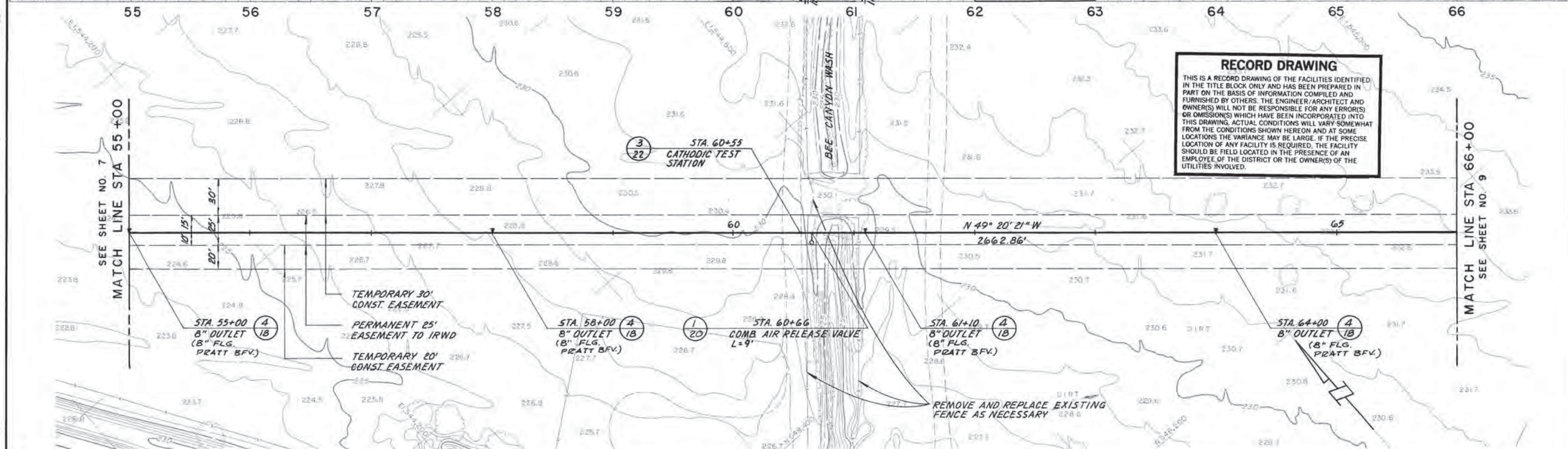
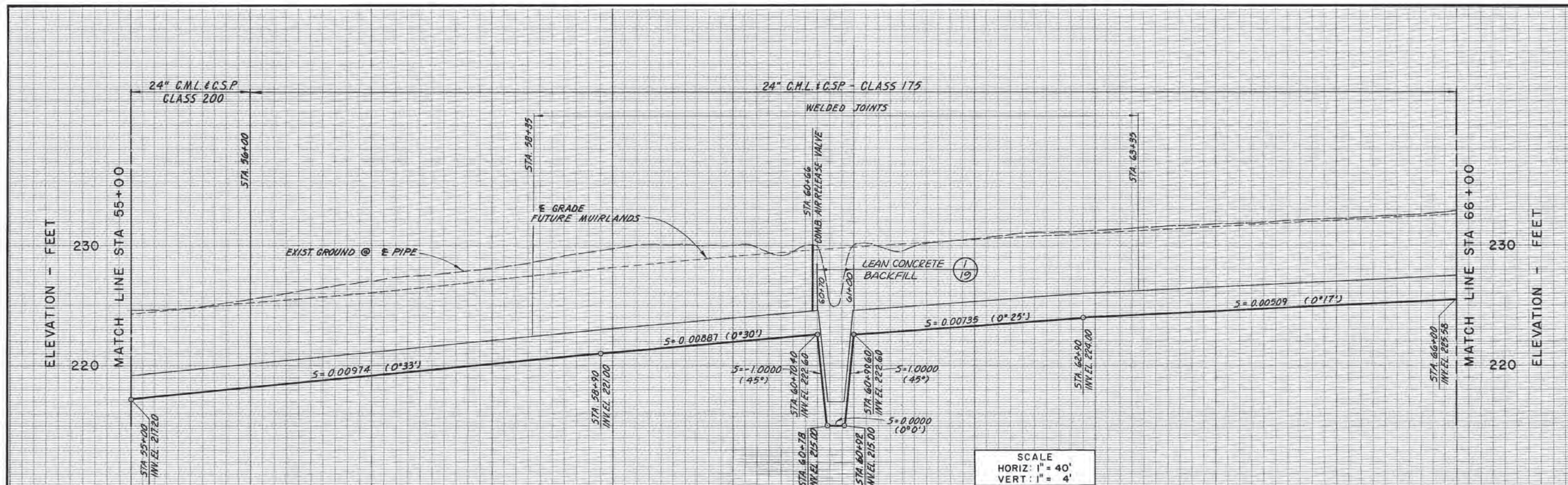
NO.		DATE		REVISIONS		APPROVED		DESIGN - K.W.S.						RCE 30861 PROJECT ENGINEER		DATE 1/12/83		IRVINE RANCH WATER DISTRICT		PLAN AND PROFILE		SHEET	
								DRAWN - A.E.B.		1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505				RCE 17139 PROJECT MANAGER		1/12/83		ZONE III INTERTIE FOR IIC-EAST		STA 23+00 TO STA 34+00		5 OF 22	
1-83				RECORD DRAWINGS				CHECK - M.L.C.										PROJECT NO. 11320					



NO.		DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 IRVINE RANCH WATER DISTRICT	<u>Karl W. Seibel</u> RCE 30861 PROJECT ENGINEER	DATE 1/12/83	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 34 + 00 TO STA 44 + 00	SHEET 6 OF 22
					DRAWN - A.E.B.			<u>C. Russell Hulce</u> RCE 17189 PROJECT MANAGER	1/12/83			
					CHECK - M.L.C.							
	9-83	RECORD DRAWINGS										

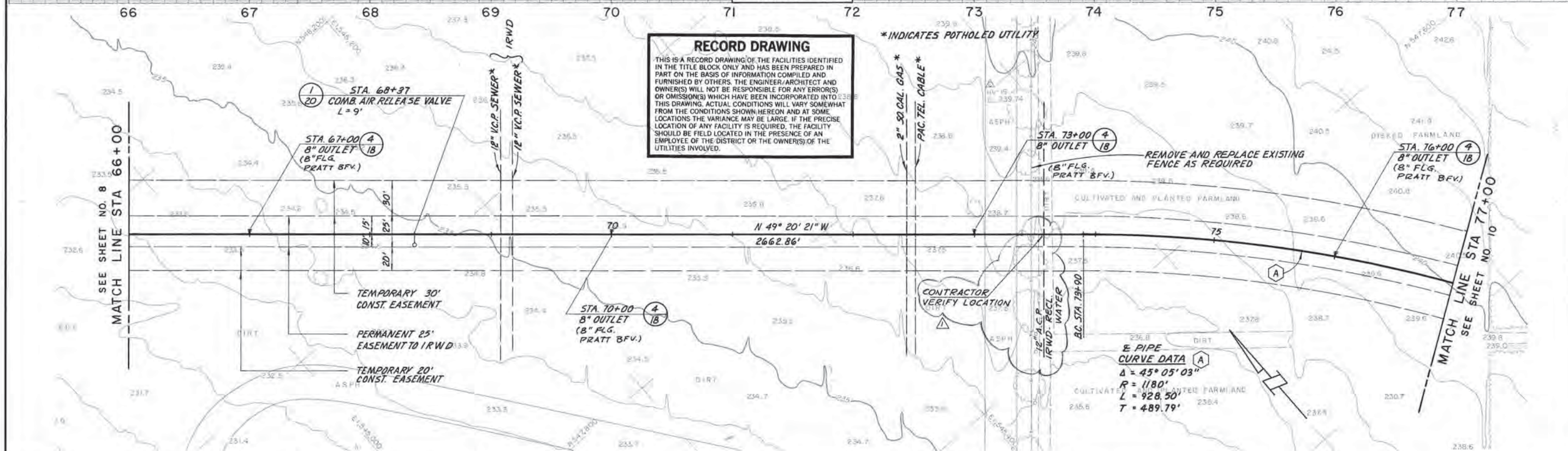
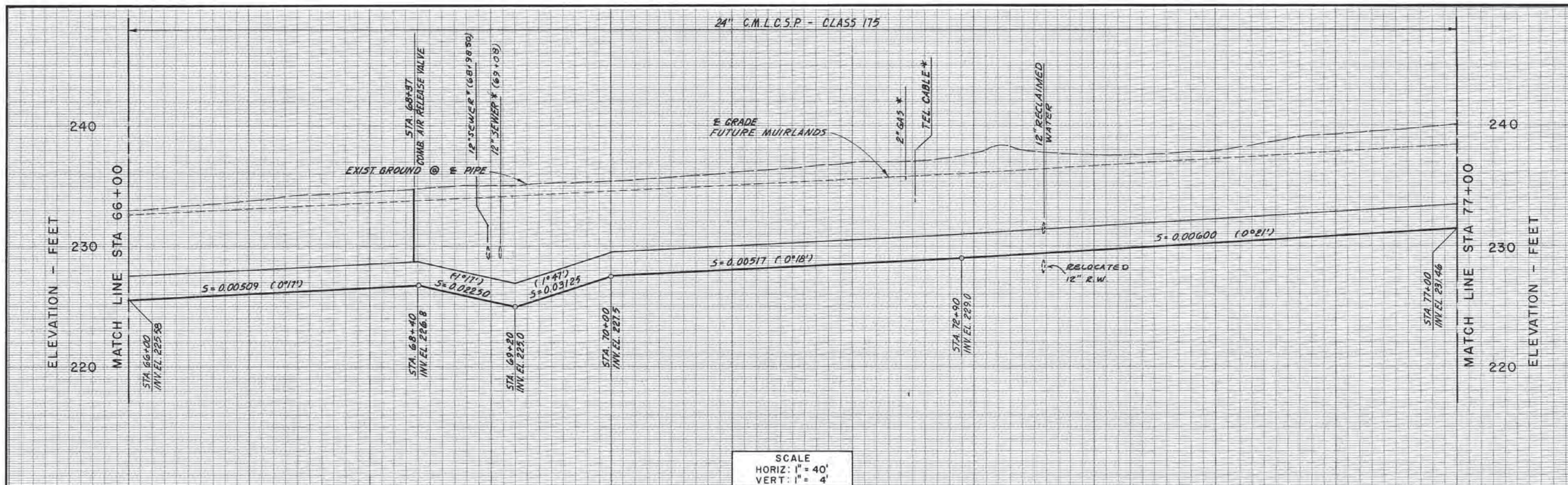


NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 Irvine Ranch Water District	Karl W. Seibel RCE 30861 PROJECT ENGINEER DATE 1/12/83	C. Russell Hulse RCE 17139 PROJECT MANAGER 1/12/83	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 44+00 TO STA 55+00	SHEET 7 OF 22
				DRAWN - A.E.B.							
				CHECK - M.L.C.							
9.83		RECORD DRAWINGS									



RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.		DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	 Bowie Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714-752-0505	 IRVINE RANCH WATER DISTRICT	<u>Karl W. Seibel</u> RCE 30861 PROJECT ENGINEER	DATE 1/12/83	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 55 + 00 TO STA 66 + 00	SHEET 8 OF 22
					DRAWN - A.E.B.			<u>C. Russell Hulse</u> RCE 17139 PROJECT MANAGER	1/12/83			
					CHECK - M.L.C.							
	9-83	RECORD DRAWINGS										



RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED
9-83	RECORD DRAWING		
27 JAN 83	ADD 12" R.W. - STA. 73+58		

DESIGN - K.W.S.
DRAWN - A.E.B.
CHECK - M.L.C.

B Boyle Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505



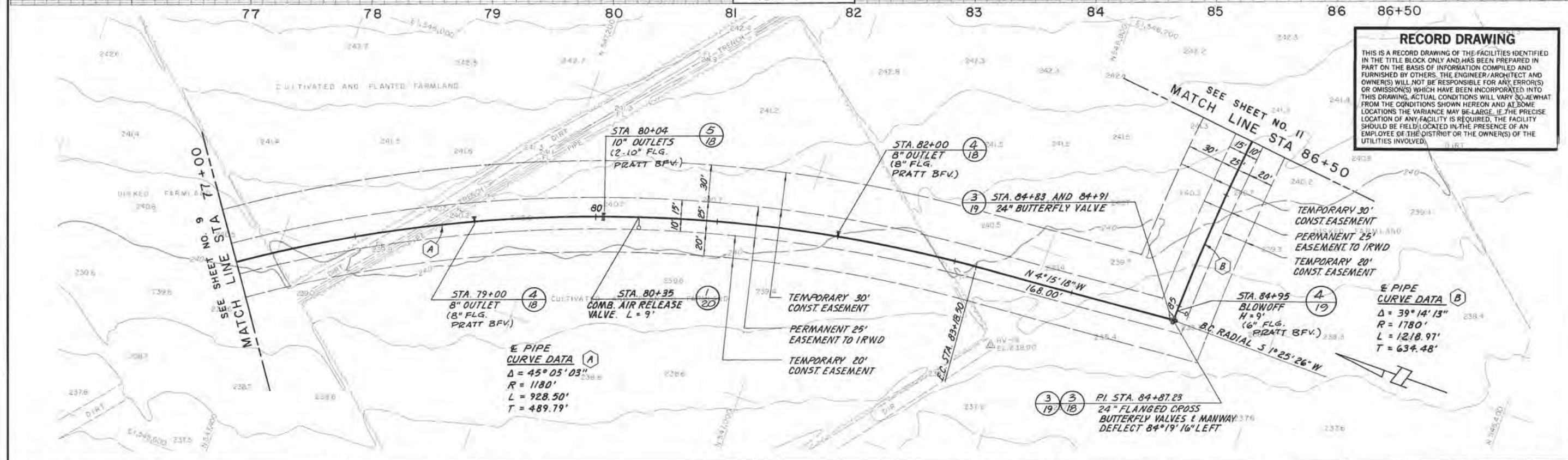
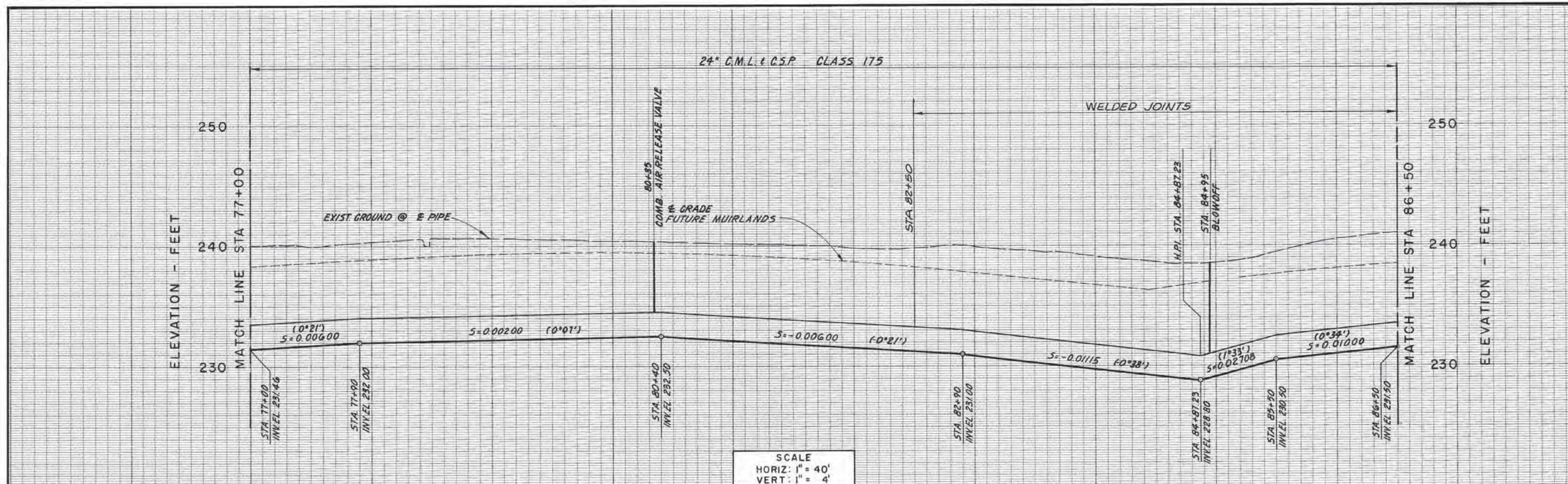
Karl W. Seibel RCE 30861 PROJECT ENGINEER DATE 1/12/83
C. Russell Hinton RCE 17139 PROJECT MANAGER 1/12/83

IRVINE RANCH WATER DISTRICT
ZONE III INTERTIE FOR IIC-EAST
PROJECT NO. 11320

PLAN AND PROFILE
STA 66+00
TO
STA 77+00

SHEET
9
OF
22

386 D-2135-9



RECORD DRAWING

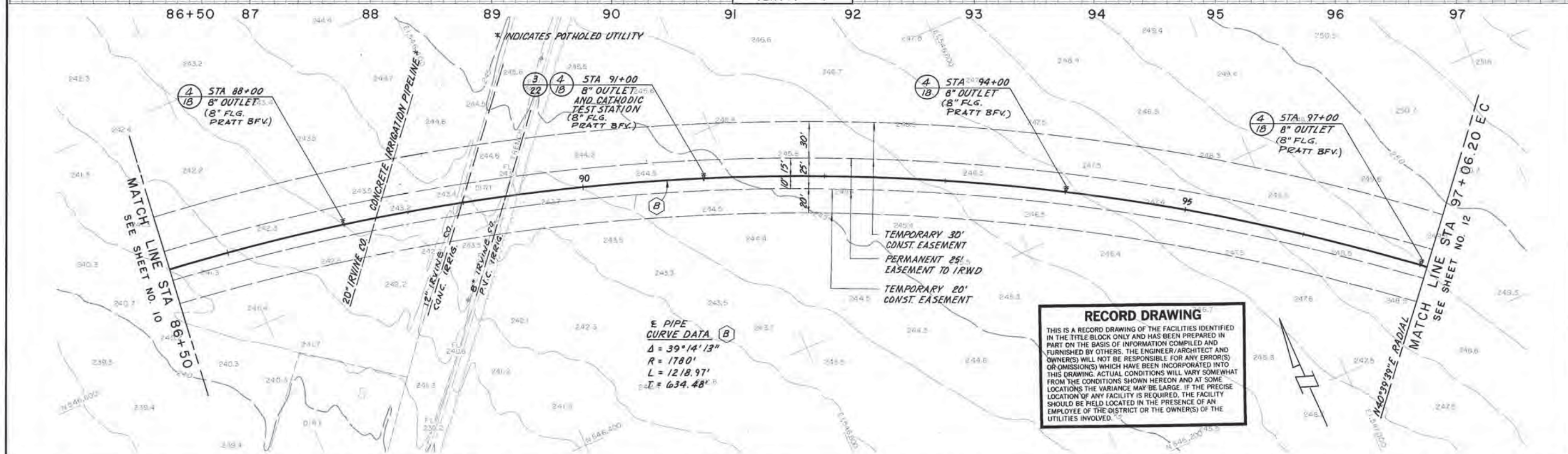
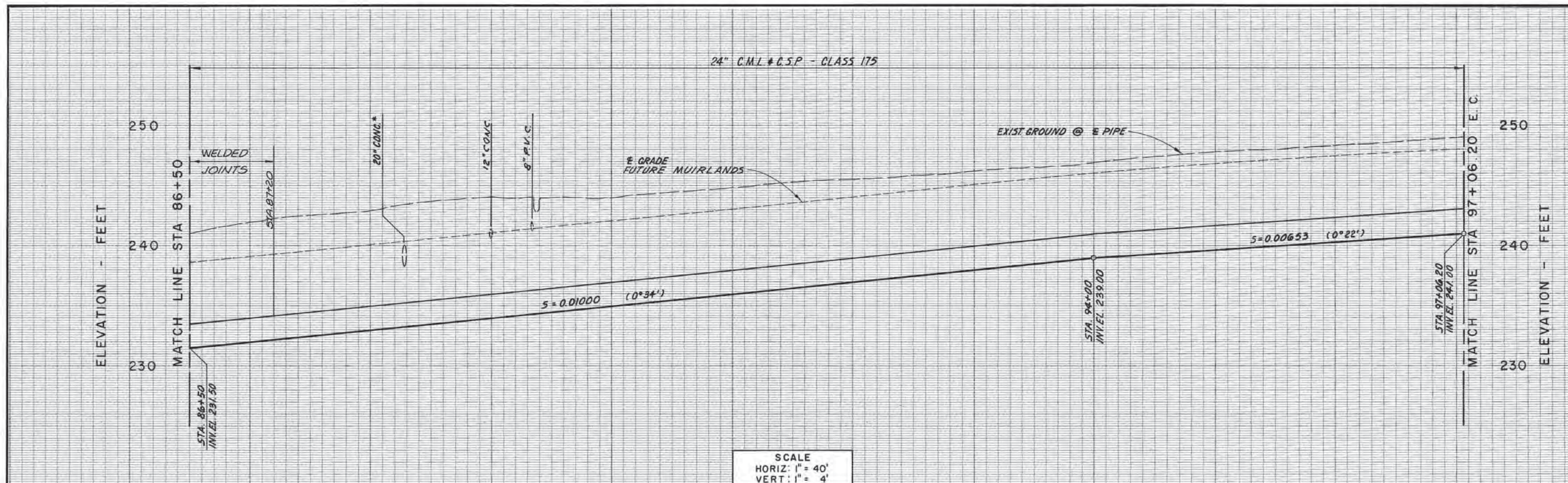
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNERS WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	PROJECT ENGINEER	PROJECT MANAGER	IRVINE RANCH WATER DISTRICT	PLAN AND PROFILE	SHEET
1	9-83	RECORD DRAWINGS		- K.W.S.	- A.E.B.	- M.L.C.	RCE 30861 1/12/83	RCE 17139 1/12/83	ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	STA 77+00 TO STA 86+50	10 OF 22

B Boyle Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505



Karl W. Seibel
C. Russell Hulce



NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK
1	9-83	RECORD DRAWINGS		K.W.S.	A.E.B.	M.L.C.

Boyle Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505

Irvine Ranch Water District

Karl W. Jekel
C. Russell Hulce

RCE 30861
PROJECT ENGINEER

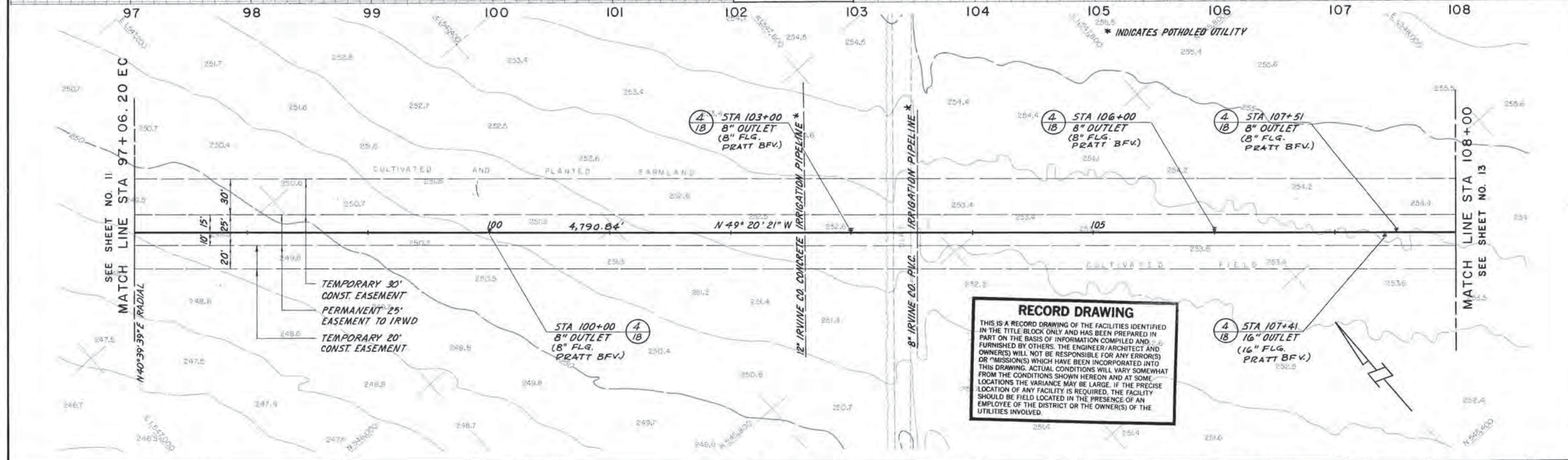
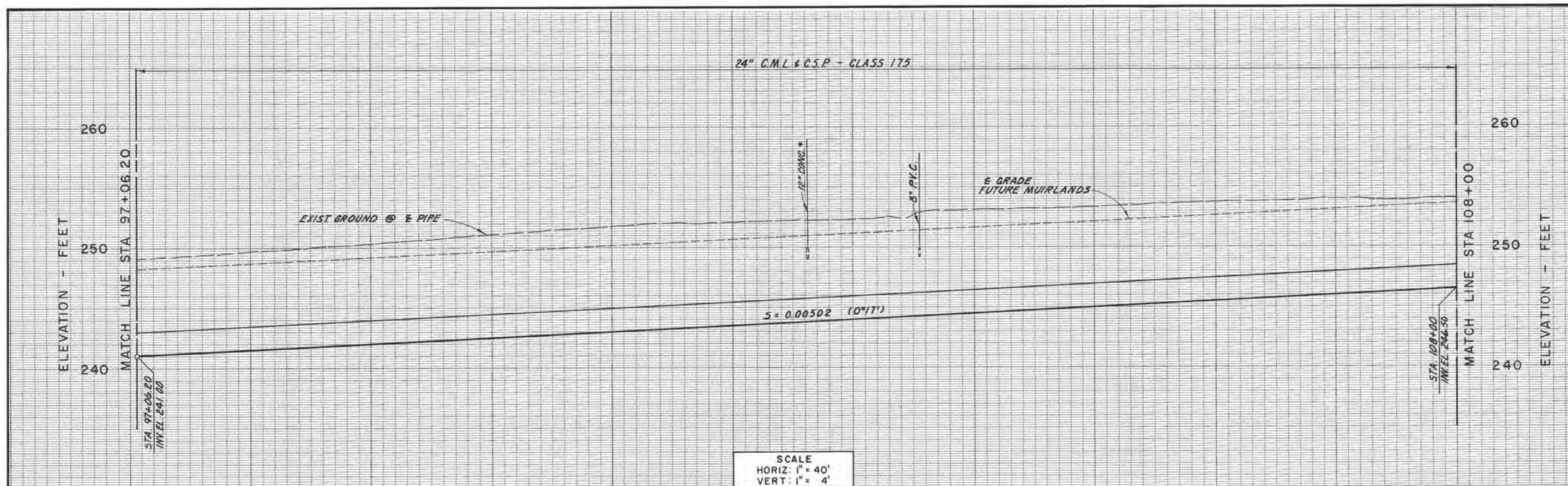
RCE 17139
PROJECT MANAGER

DATE 1/12/83

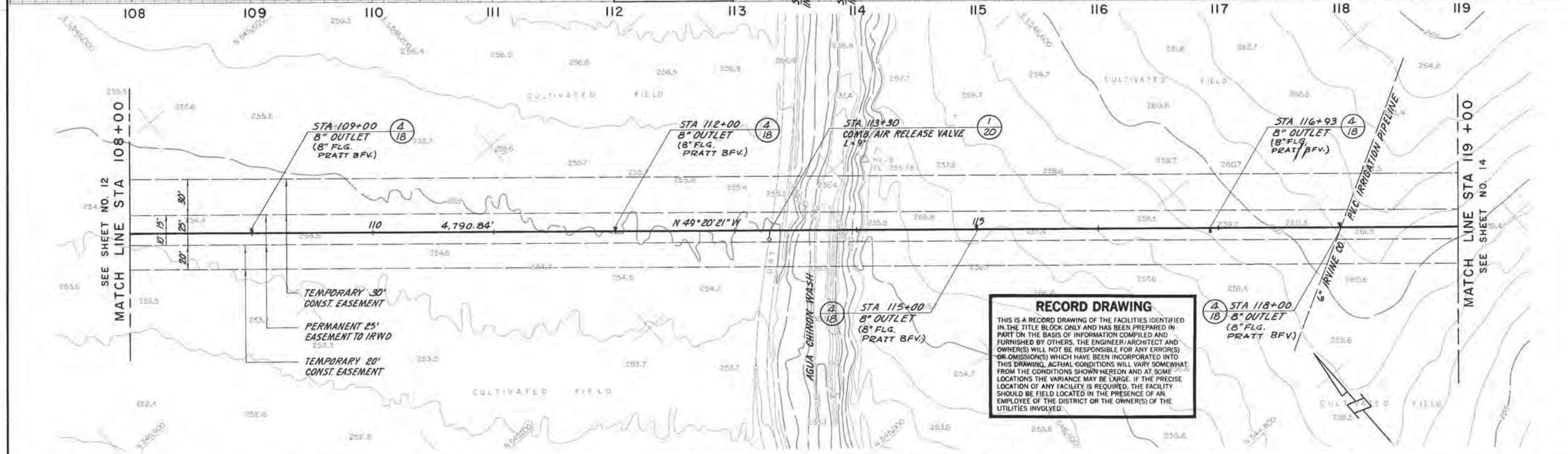
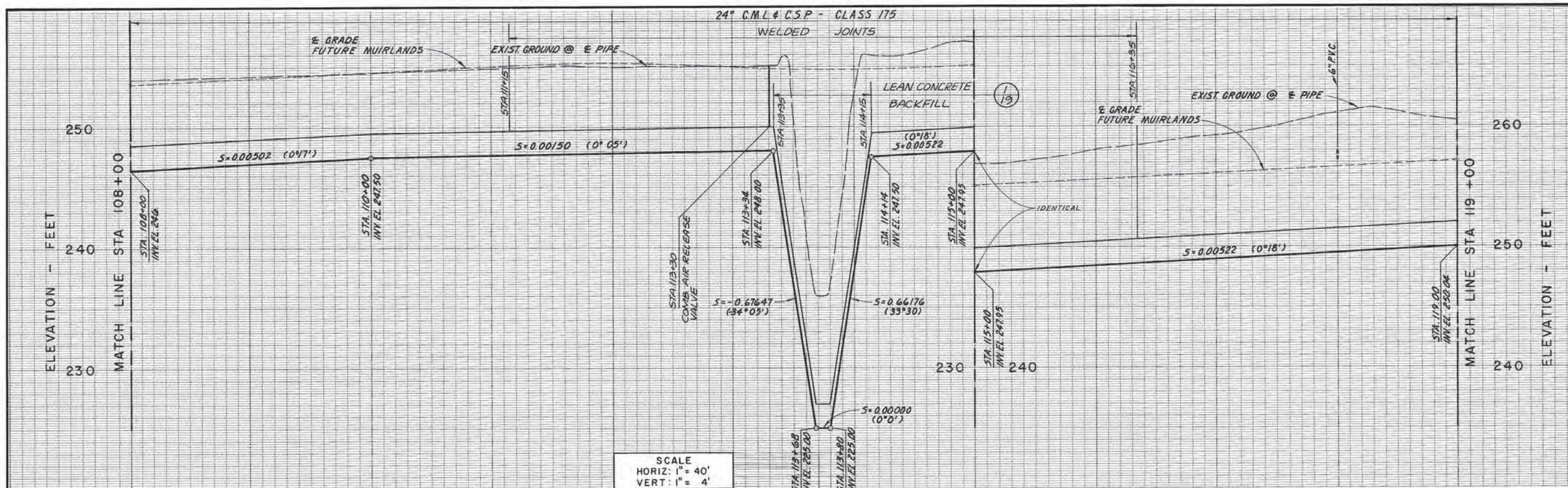
IRVINE RANCH WATER DISTRICT
ZONE III INTERTIE
FOR IIC-EAST
PROJECT NO. 11320

PLAN AND PROFILE
STA 86 + 50
TO
STA 97 + 06.20

SHEET 11 OF 22





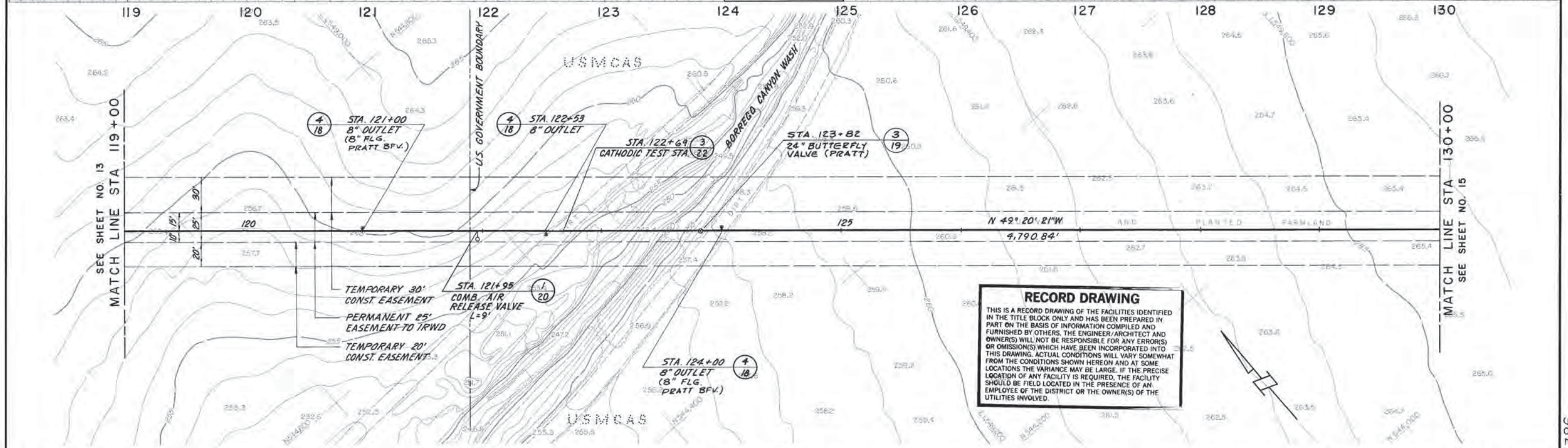
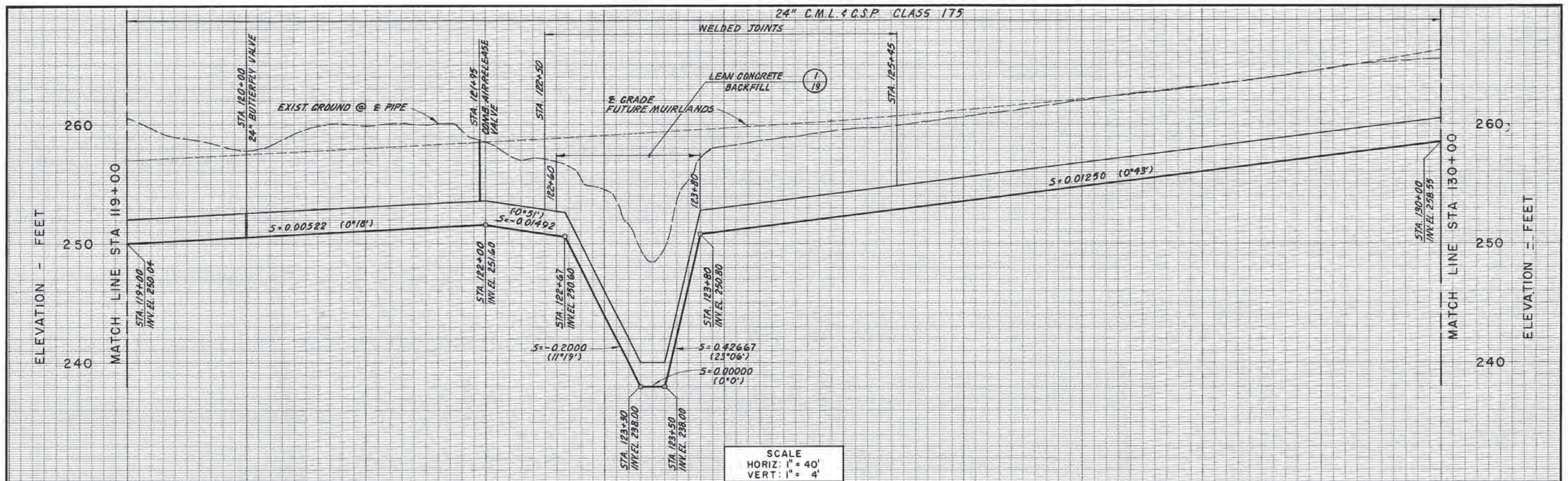
NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	BY	DATE	PROJECT ENGINEER	PROJECT MANAGER	IRVINE RANCH WATER DISTRICT	ZONE III INTERTIE FOR IIC-EAST	PROJECT NO. 11320	SHEET
1	9-83	RECORD DRAWINGS		K. W. S.	A. E. B.	M. L. C.			Karl W. J. J.	C. Russell Huber				12
														OF
														22





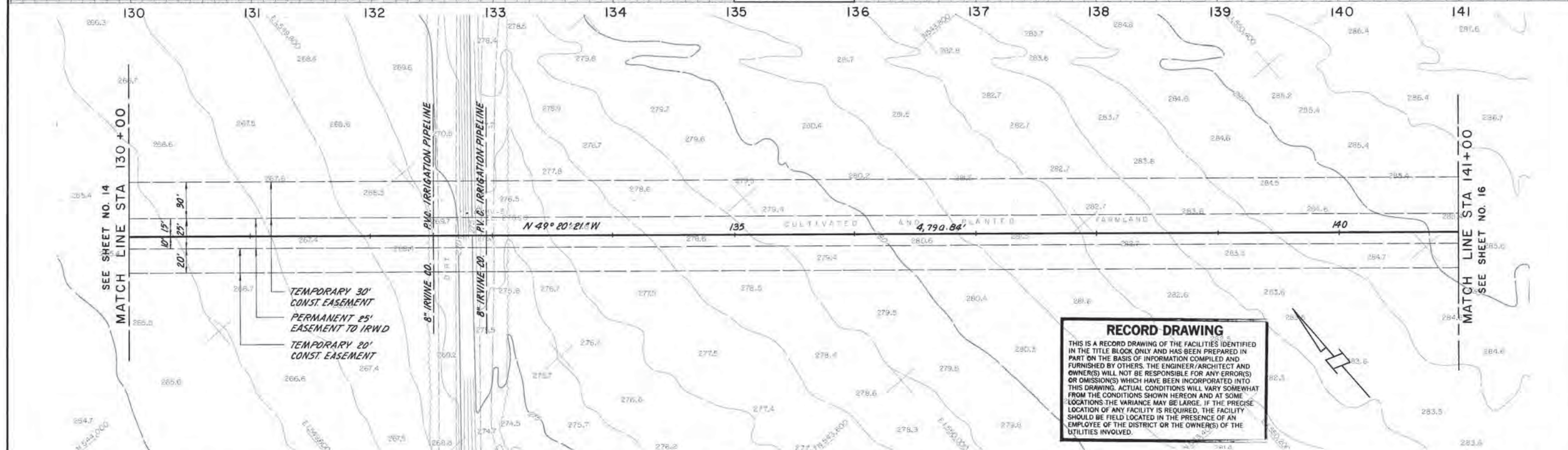
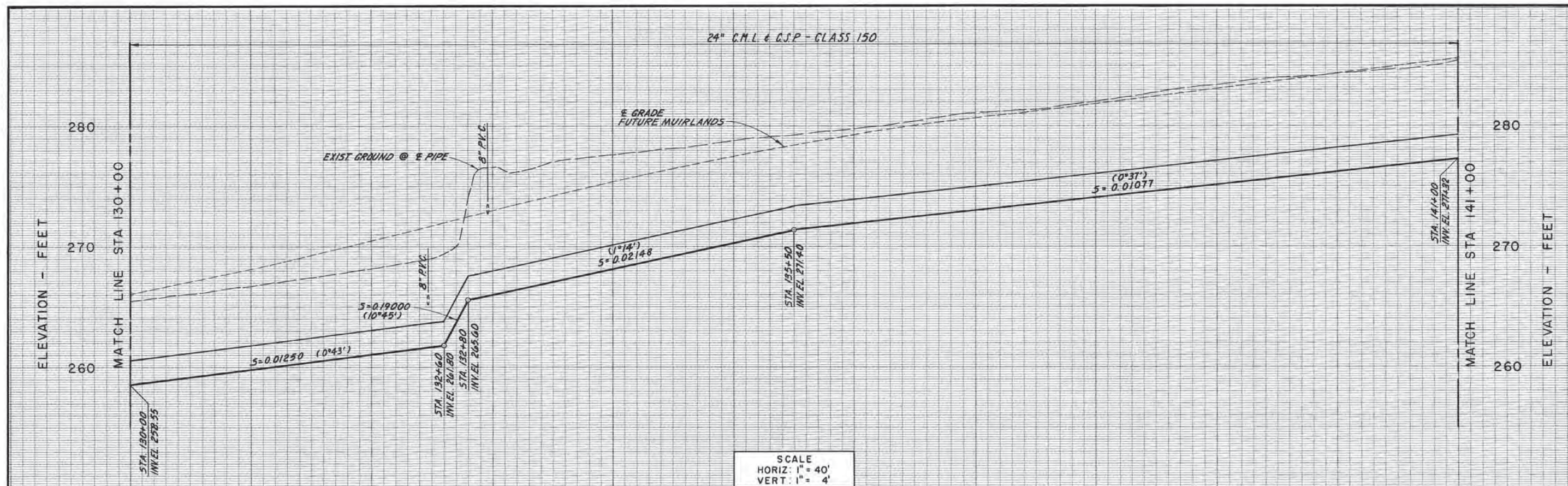
RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 Irvine Ranch Water District	Karl W. Sisk RCE 30861 PROJECT ENGINEER DATE 1/12/83	C. Russell Kuhn RCE 17139 PROJECT MANAGER DATE 1/12/83	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 108+00 TO STA 119+00	SHEET 13 OF 22
				DRAWN - A.E.B.							
				CHECK - M.L.C.							
9-83		RECORD DRAWINGS									

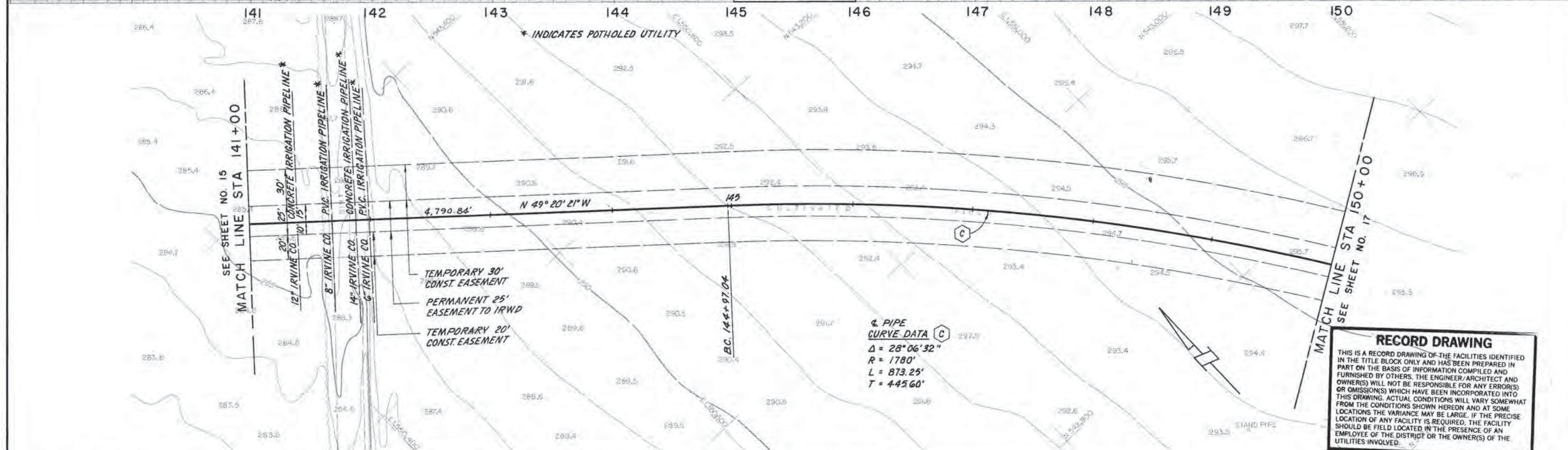
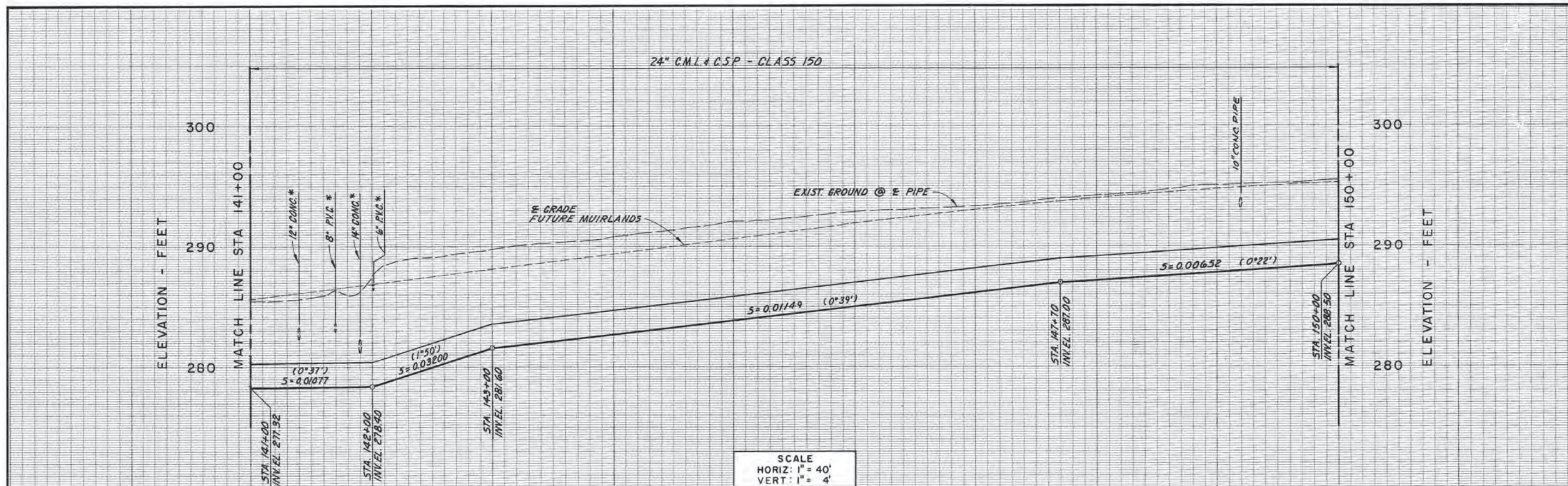


NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 IRVINE RANCH WATER DISTRICT	<u>Karl W. Schell</u> RCE 30861 DATE 1/12/83 PROJECT ENGINEER	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 119+00 TO STA 130+00	SHEET 14 OF 22
			DRAWN - A.E.B.	<u>C. Russell Huber</u> RCE 17139 DATE 1/12/83 PROJECT MANAGER						
	9-18	RECORD DRAWINGS	CHECK - M.L.C.							

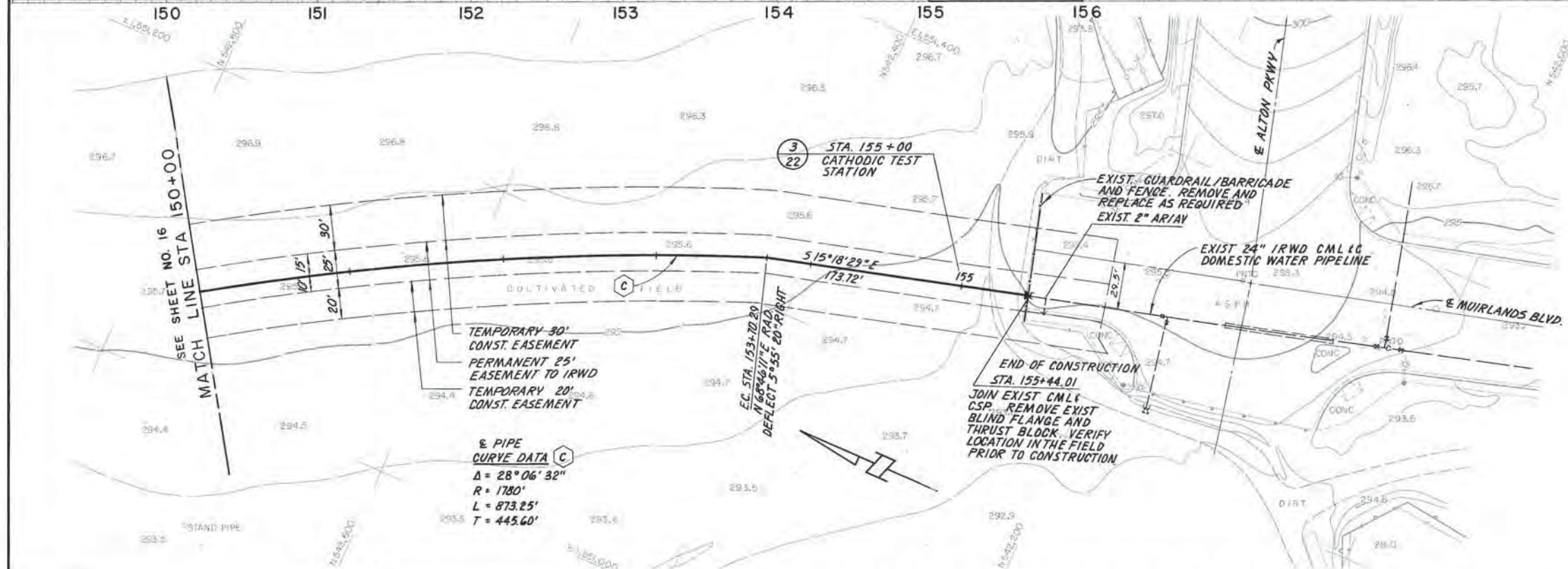
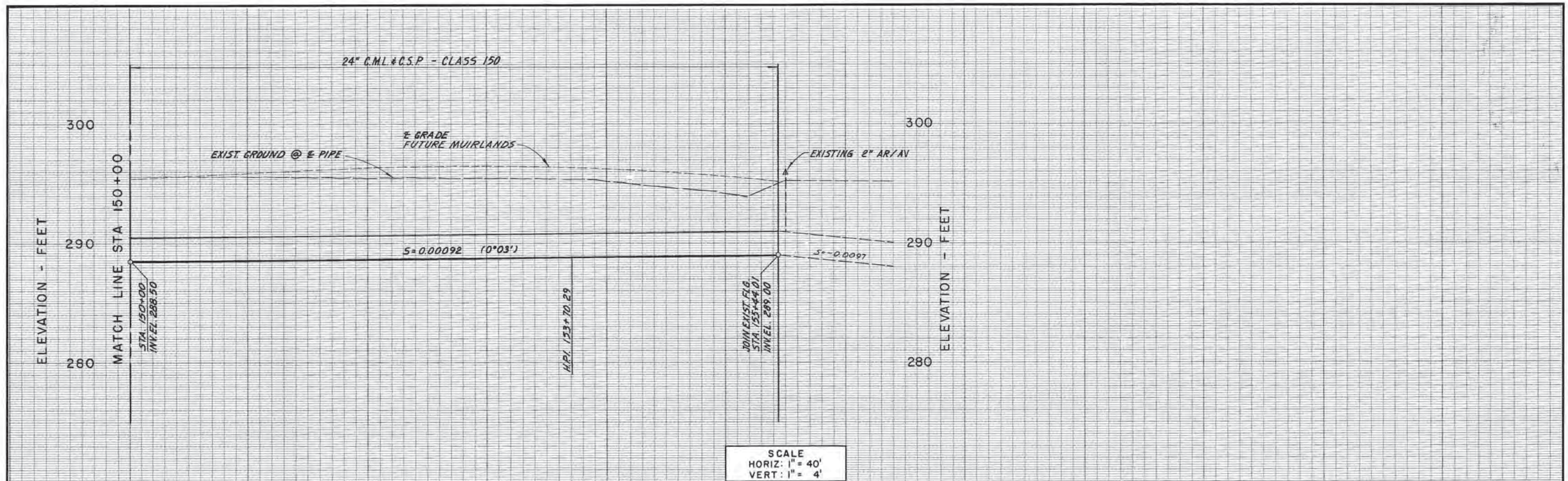


RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.		DATE	REVISIONS	APPROVED	DESIGN	 Boyle Engineering Corporation 1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	 IRVINE RANCH WATER DISTRICT	<u>Karl W. Seibel</u>	RCE 30861	DATE	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	PLAN AND PROFILE STA 130+00 TO STA 141+00	SHEET 15 OF 22
					DRAWN			<u>C. Russell Huber</u>	RCE 17139	1/12/83			
					CHECK								
9-83		RECORD DRAWINGS			- K.W.S.			- A.E.B.	- M.L.C.				



NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	BOYLE Engineering Corporation	IRVINE RANCH WATER DISTRICT	PLAN AND PROFILE	SHEET
1	9-83	RECORD DRAWINGS		- K. W. S.	- A. E. B.	- M. L. C.	1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	STA 141+00 TO STA 150+00	16 OF 22



RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	PROJECT ENGINEER	PROJECT MANAGER	IRVINE RANCH WATER DISTRICT	PLAN AND PROFILE	SHEET
				K. W. S.	A. E. B.	M. L. C.	RCE 30861	RCE 17139	ZONE III INTERTIE FOR IIC-EAST	STA 150+00 TO STA 155+44.01	17 OF 22
9-83		RECORD DRAWINGS					DATE 1/12/83	DATE 1/12/83	PROJECT NO. 11320		

Boyle Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505



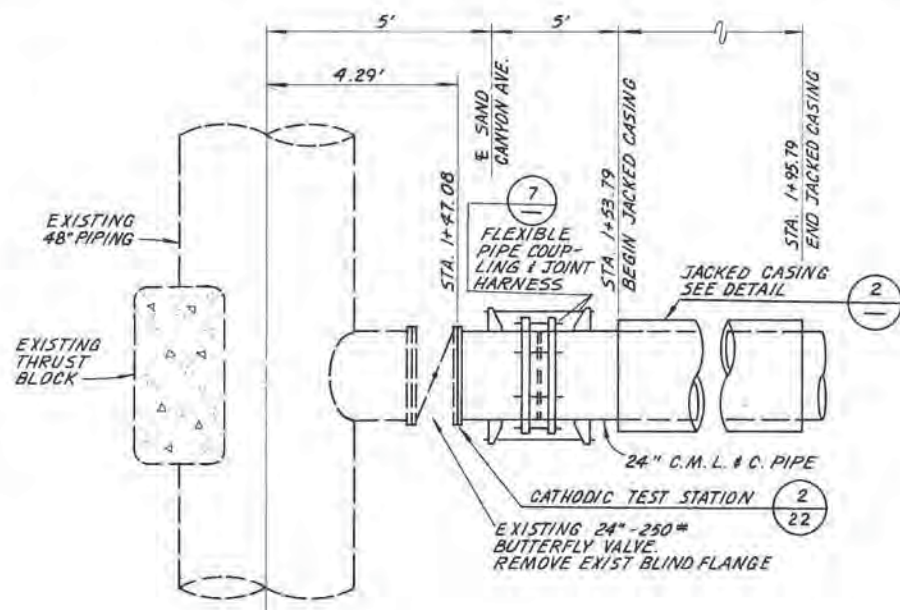
Karl W. Seibel
C. Russell Huber

RCE 30861
PROJECT ENGINEER
DATE 1/12/83
RCE 17139
PROJECT MANAGER
DATE 1/12/83

IRVINE RANCH WATER DISTRICT
ZONE III INTERTIE FOR IIC-EAST
PROJECT NO. 11320

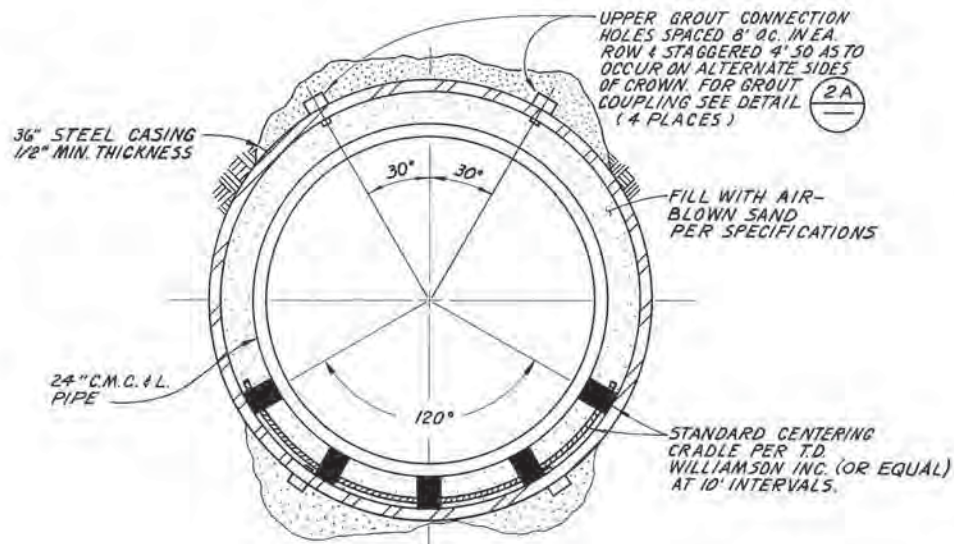
PLAN AND PROFILE
STA 150+00 TO STA 155+44.01

SHEET 17 OF 22



CONNECTION AT SAND CANYON AVENUE

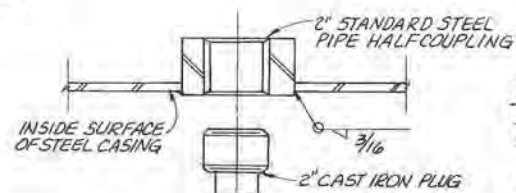
DETAIL 1
N.T.S.



TYPICAL PIPE CASING

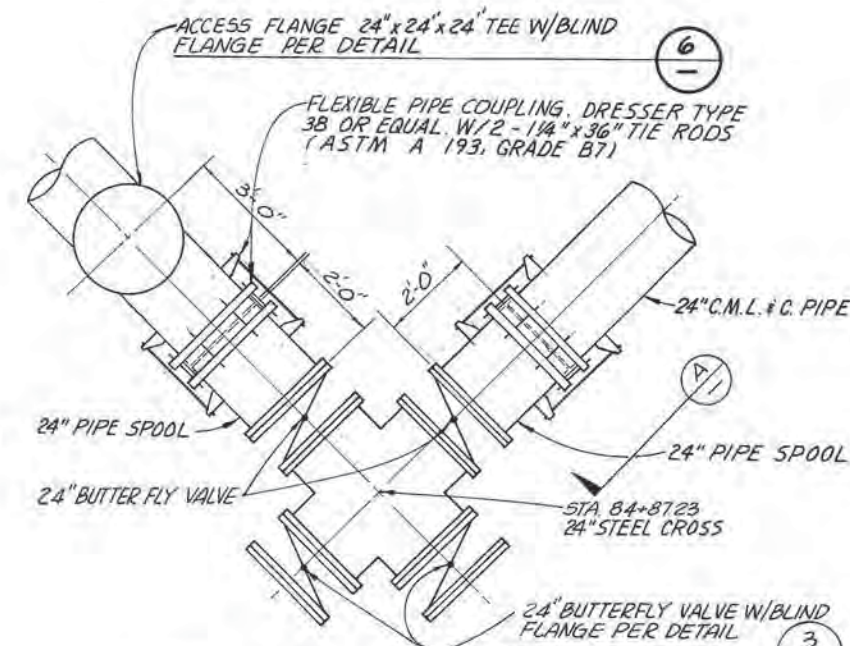
STA. 1+53.79 TO 1+95.79
STA. 15+47 TO 15+67

DETAIL 2
N.T.S.



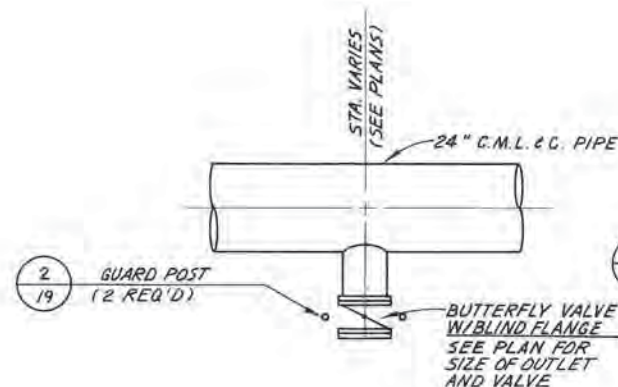
GROUT COUPLING

DETAIL 2A
N.T.S.



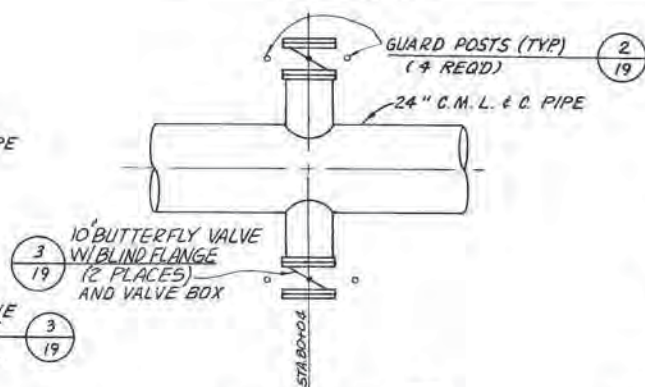
CONNECTION AT MUIRLANDS BLVD.
AND BARRANCA RD

DETAIL 3
N.T.S.

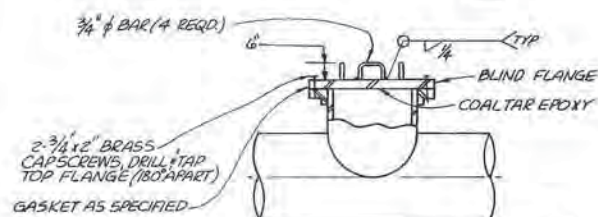


TYPICAL OUTLET

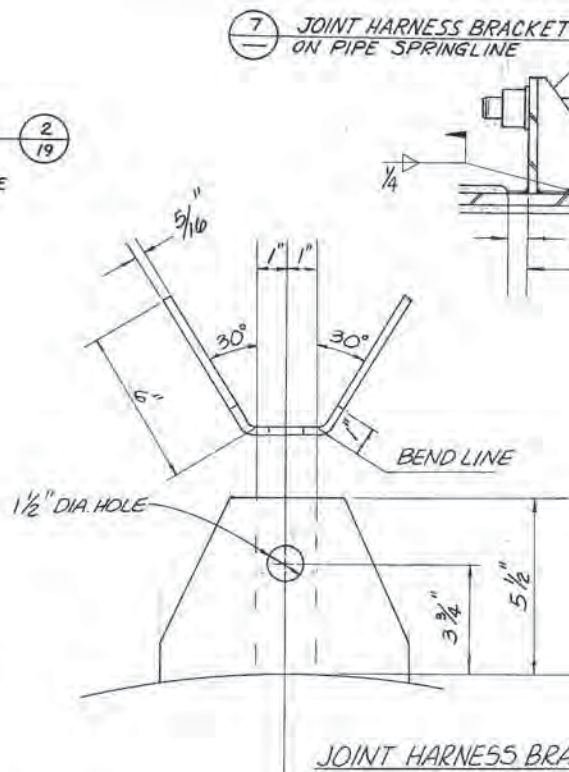
DETAIL 4
N.T.S.



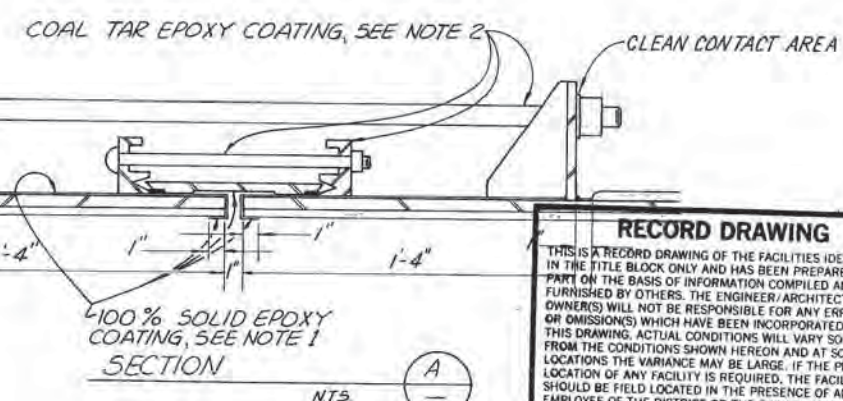
OUTLET DETAIL
STA. 80+04



MANWAY DETAIL



JOINT HARNESS BRACKET DETAIL

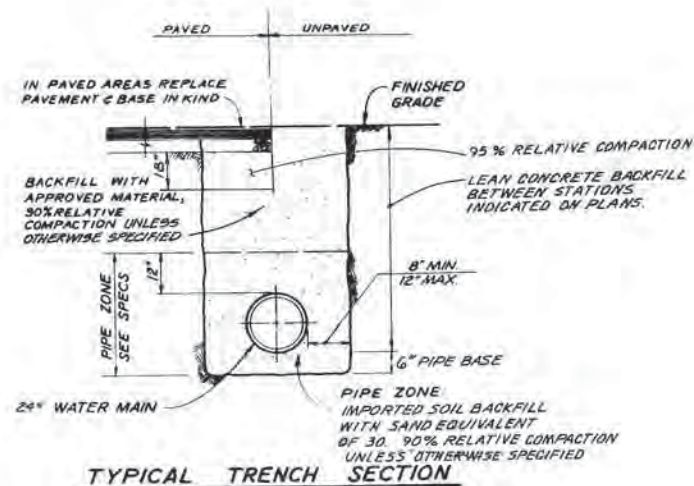


NOTES:

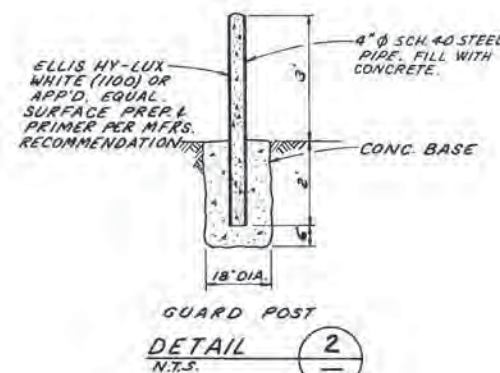
1. INTERIOR SURFACE OF MIDDLE RING AND EXTERIOR SURFACE OF STEEL PIPE 1'-5" ON EACH SIDE OF COUPLING SHALL BE COATED WITH 100% SOLID EPOXY COATING. COATING SHALL BE CARRIED OUT ON PORTIONS OF EXTERNAL SURFACE OF THE MIDDLE RING AS SHOWN AND ON 1" OF MORTAR LINED INTERIOR OF STEEL PIPE.
2. EXTERIOR OF MIDDLE RING, COUPLING FLANGES AND BOLTS SHALL HAVE A COAL TAR EPOXY COATING FIELD APPLIED ACCORDING TO AWWA C203.
3. LUG MATERIAL SHALL BE ASTM 283, GRADE B, OR ASTM A-285, GRADE C.
4. APPLY SAN-CHEM 66-2 NO-OXID GREASE LIBERALLY OVER COUPLING PRIOR TO WRAPPING IN POLYETHYLENE.

RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNERS WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

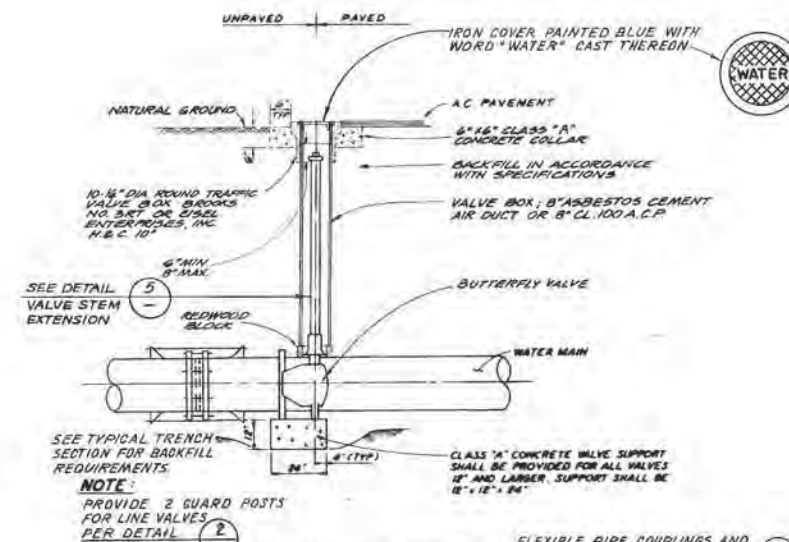
NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	386	IRVINE RANCH WATER DISTRICT	SHEET
				DRAWN - A.E.B.	1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505	ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	18
				CHECK - M.L.C.			22
9-83		RECORD DRAWINGS					



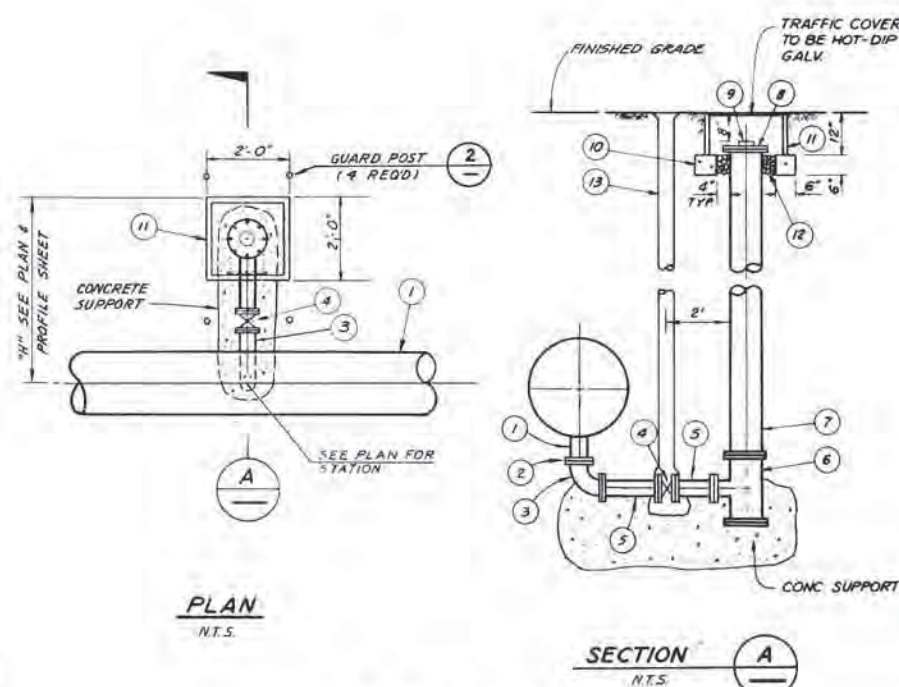
DETAIL 1
NOT TO SCALE



GUARD POST
DETAIL 2
N.T.S.



DETAIL 3
NOT TO SCALE

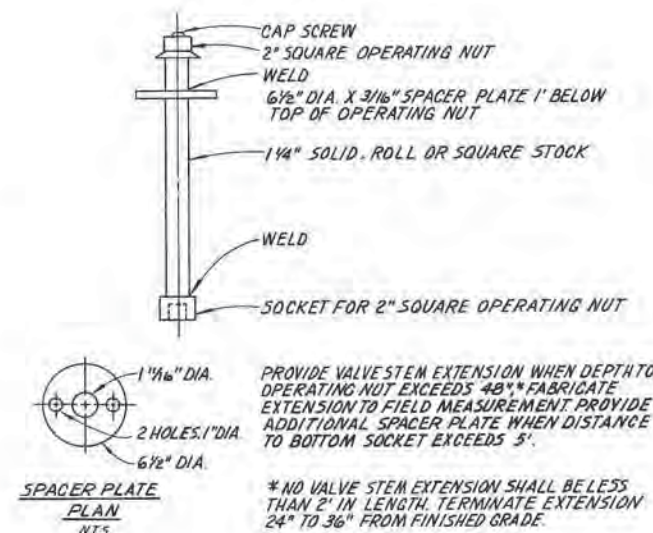


MANUAL DRAIN AND BLOW-OFF VALVE

DETAIL 4
N.T.S.

MATERIALS LIST	
ITEM	DESCRIPTION
1	6" FLANGED OUTLET
2	6" FLANGE INSULATION KIT
3	6" 90° FLANGED CAST IRON ELBOW
4	6" FLANGED BUTTERFLY VALVE
5	6" FLANGED D.I.P.
6	8" X 8" X 16" FLED C.I.T.E. W/ 8" BLIND FLANGE
7	8" D.I.P., C.M.L. & C.
8	8" BLIND FLANGE WITH 3" TAP
9	2 1/2" BRASS FIRE HOSE NOZZLE WITH CAP & CHAIN
10	6" X 6" CONC FOOTING AROUND VAULT
11	PRE-CAST CONC VAULT BROOKS NO 722 A OR APP'D EQ
12	PEA GRAVEL AROUND PIPE
13	VALVE BOX PER DETAIL 3

NOTE: ALL D.I.P. AND CAST IRON FITTINGS TO BE CEMENT MORTAR LINED. (3/16") D.I.P. TO BE THICKNESS CLASS 52



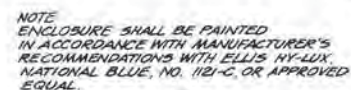
DETAIL 5
N.T.S.

RECORD DRAWING
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED	DESIGN - K.W.S.	<div><div><div>3</div><div>Boyle Engineering Corporation.</div></div><div>1501 Quail Street P.O. Box 3030 Newport Beach, California 92663 714 / 752-0505</div></div>	<div><div><div></div><div>IRVINE RANCH WATER DISTRICT</div></div></div>	Karl W. Lebel	RCE 30861 PROJECT ENGINEER	DATE 1/12/83	IRVINE RANCH WATER DISTRICT ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320	MISCELLANEOUS DETAILS	SHEET 19 OF 22
			DRAWN - A.E.B.	C. Russell Niles			RCE 17139 PROJECT MANAGER	1/12/83				
			CHECK - M.L.C.									
9-83		RECORD DRAWINGS										



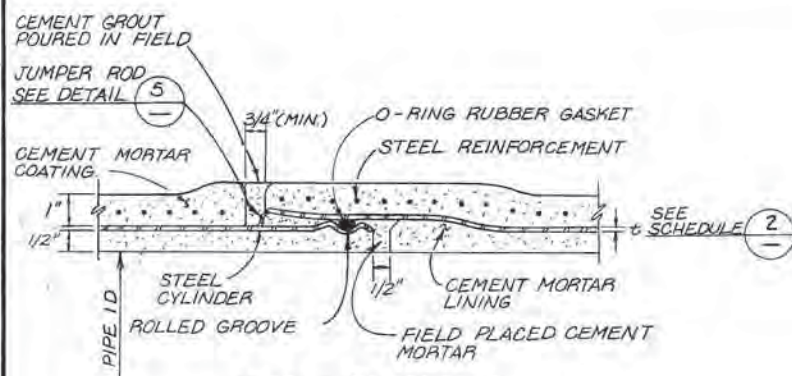
DETAIL (3)



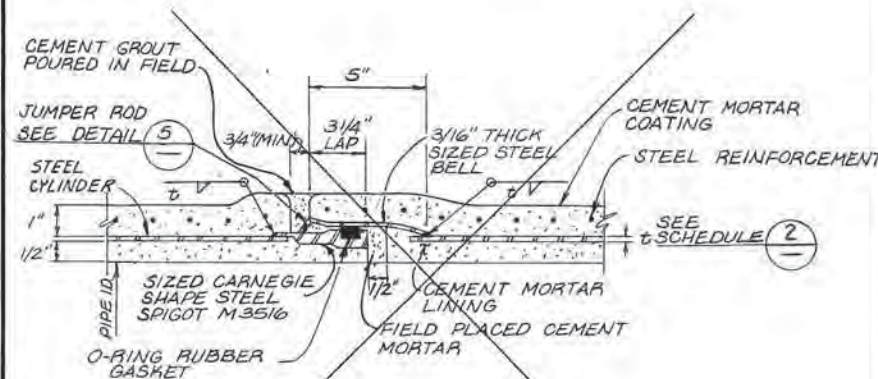
THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER, ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

DETAIL 

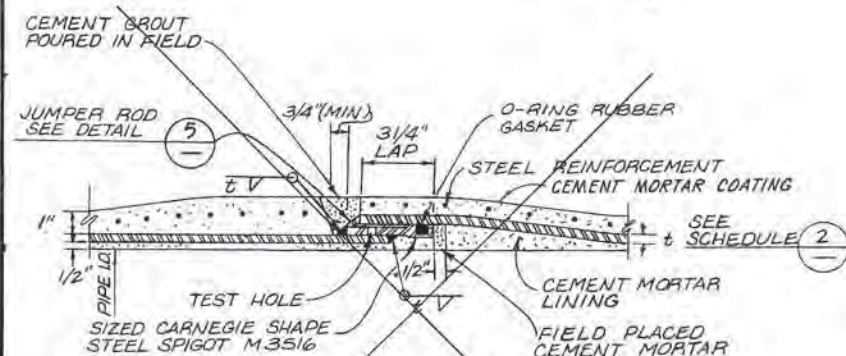
386 D-2135-20



TYPE I JOINT
N.T.S.



TYPE II JOINT
N.T.S.



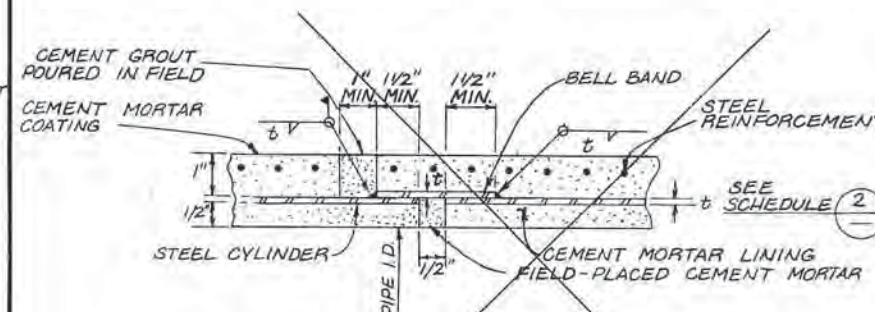
TYPE III JOINT
N.T.S.

**CEMENT MORTAR LINED AND
COATED STEEL PIPE
RUBBER GASKET JOINTS**

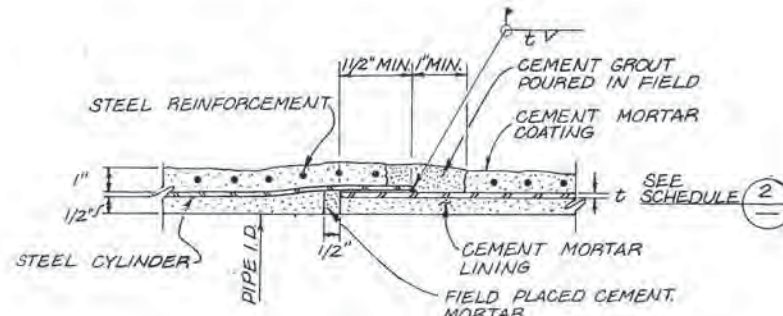
NOMINAL PIPE I.D.	PIPE CLASS P.S.I.	PIPE END JOINTS	CYLINDER THICKNESS (t)
24"	150	RUBBER GASKET	10 GAGE
24"	150	FIELD WELD	8 GAGE
24"	175	RUBBER GASKET	9 GAGE
24"	175	FIELD WELD	7 GAGE
24"	200	RUBBER GASKET	8 GAGE
24"	200	FIELD WELD	3/16"

**CEMENT MORTAR LINED AND
COATED STEEL PIPE SCHEDULE**

2



TYPE I JOINT
N.T.S.



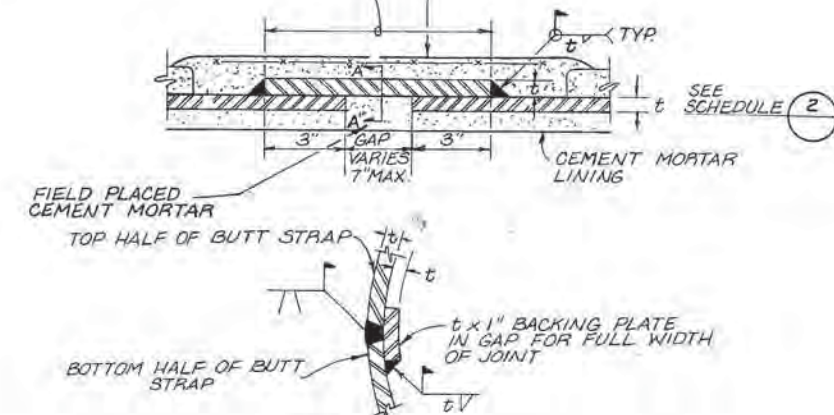
TYPE II JOINT
N.T.S.

**CEMENT MORTAR LINED AND
COATED STEEL PIPE
FIELD WELDED JOINTS**

3

13" MAX. LENGTH OF BUTT STRAP FOR FIELD CLOSURE SECTION. BUTT STRAPS TO BE FURNISHED IN TWO PIECES AND SHIPPED LOOSE FOR FIELD WELDING.

1" MIN. FIELD APPLIED MORTAR COATING REINFORCED W/2" x 4" - 13/13 W.W.M.

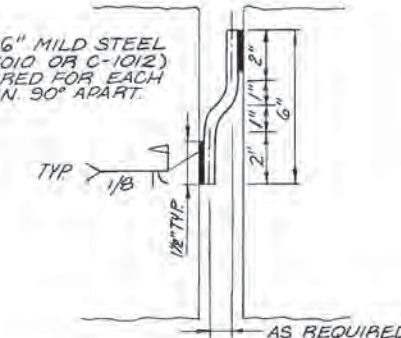


SECTION "A"

BUTT STRAP JOINT DETAIL

4

5/16" φ x 6" MILD STEEL ROD (C-1010 OR C-1012) 2- REQUIRED FOR EACH JOINT MIN. 90° APART.



JUMPER ROD DETAIL

5

RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED
			DESIGN - RKK
			DRAWN - DRW
			CHECK - CRH
9-83		RECORD DRAWINGS	

Boulle Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505



Karl W. Lefel
RCE 30861
PROJECT ENGINEER
DATE 1/12/83
C. Russell Huber
RCE 17139
PROJECT MANAGER
DATE 1/12/83

IRVINE RANCH WATER DISTRICT
ZONE III INTERTIE
FOR IIC-EAST
PROJECT NO. 11320

MISCELLANEOUS
DETAILS

SHEET
21
OF
22

SCE EMF Issues Management Report of Proposed or Existing School Site Support

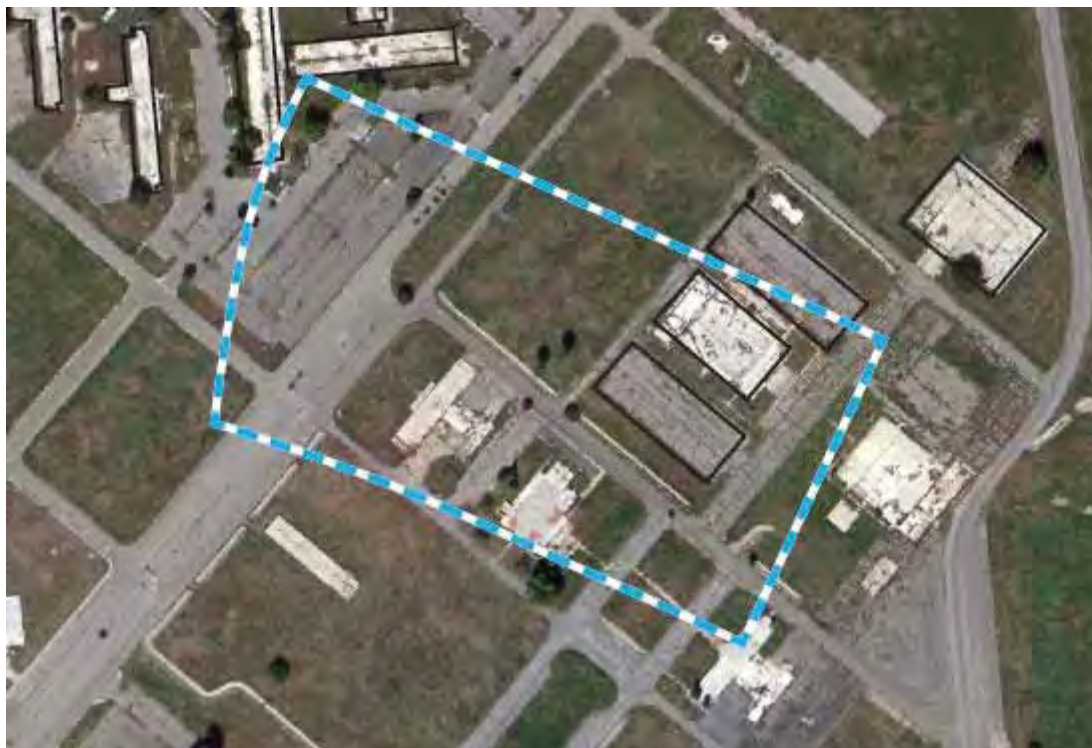
Request Received: 2/14/2013 Received By: MM
Requesting Entity: ____School ____District X Consultant:

Michael Watson, Geologist
THE PLANNING CENTER | DC&E
2850 Inland Empire Blvd. Suite B | Ontario CA 91764
909.989.4494 | 909.989.4447 (f) | 909.579.9161 (m) mwatson@planningcenter.com
www.planningcenter.com

Nature of Request: Voltage ID X Msmt. Req. Information
Other: _____

School District: **Irvine Unified School District**
Site Name: **Proposed Heritage Fields Great Park K8 School Site**
Site Address: **Intersection of D Street and N 8th Street**
City: **Irvine, CA 92618**
County: **Orange County**
Cross Streets: **D Street.**

Photo(s):



Site Conditions for Proposed (Heritage Fields Great Park) K8 School Site

Support Action(s) Taken: SCE database lookup, OH & UG Facility Inventory Maps, Google Earth Pro.

SCE Facilities Identified Within 5CCR Prescribed Distances:

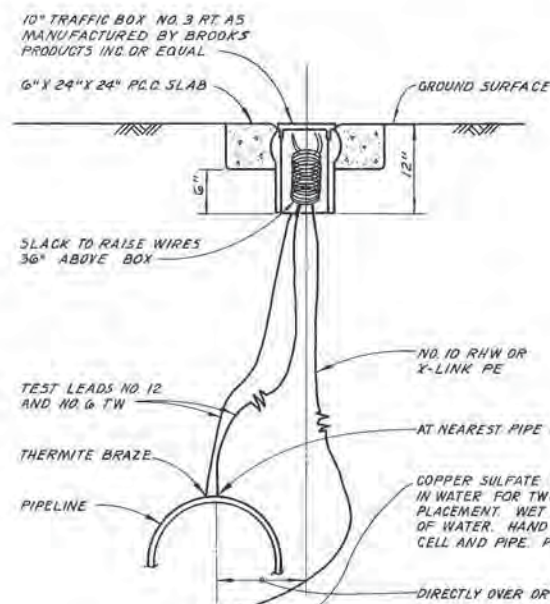
- *There are no SCE Facilities above 50 kV located within the 5CCR Prescribed Distances adjacent to the school property.*

Date(s) responded to Requestor:

2/14/13: Acknowledged, (Email)

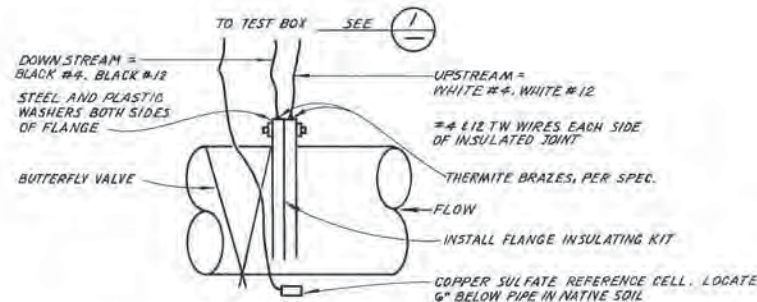
2/20/13: Acknowledged (Voicemail)

3/5/13: Supplied Information (Email)



CATHODIC TEST STATION

DETAIL 1
N.T.S.



C.T.S. AT INSULATED FLANGE

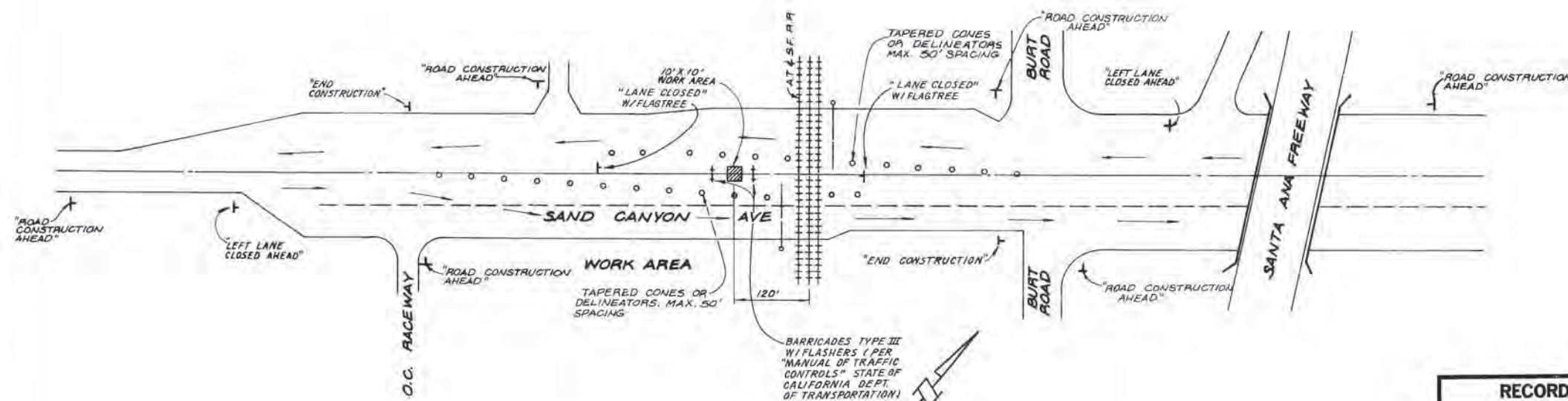
DETAIL 2
N.T.S.

STA. IRWD PIPELINE	TYPE OF INSTALL.	Cu SO ₄ REFERENCE CELL	STA. S.D.P.L. TEST BOX	REFERENCE DETAILS
1+47*	INS. FLG.	YES	1+88	2
3+15*	2	YES	3+15	1, 4
15+25*	1	YES	15+50	1, 4
27+75*	1	NO	27+75	1, 4
36+50*	2	NO	36+50	1, 4
42+90	INS. FLG.	YES	—	2
60+55	1	NO	—	1, 4
91+00	1	NO	—	1, 4
122+55	1	NO	—	1, 4
155+00	1	NO	—	1, 4

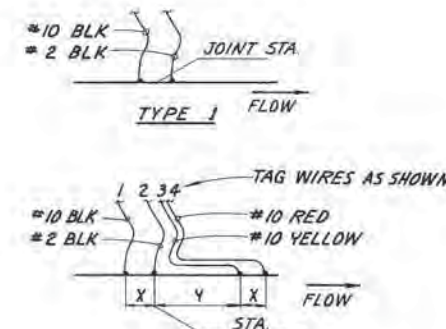
* PLACE TEST BOX OPPOSITE NEARBY SAN DIEGO PIPELINE TEST BOX

TEST STATION LOCATIONS

DETAIL 3
N.T.S.



TRAFFIC DETOUR PLAN
SAND CANYON AVENUE
1" = 100'



Y = 160'
X = ONE PIPE LENGTH
NOTE: MAKE ALL CONNECTIONS AT PIPE JOINTS

TEST STATION TYPES AND WIRING

DETAIL 4
N.T.S.

RECORD DRAWING

THIS IS A RECORD DRAWING OF THE FACILITIES IDENTIFIED IN THE TITLE BLOCK ONLY AND HAS BEEN PREPARED IN PART ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER/ARCHITECT AND OWNER(S) WILL NOT BE RESPONSIBLE FOR ANY ERROR(S) OR OMISSION(S) WHICH HAVE BEEN INCORPORATED INTO THIS DRAWING. ACTUAL CONDITIONS WILL VARY SOMEWHAT FROM THE CONDITIONS SHOWN HEREON AND AT SOME LOCATIONS THE VARIANCE MAY BE LARGE. IF THE PRECISE LOCATION OF ANY FACILITY IS REQUIRED, THE FACILITY SHOULD BE FIELD LOCATED IN THE PRESENCE OF AN EMPLOYEE OF THE DISTRICT OR THE OWNER(S) OF THE UTILITIES INVOLVED.

NO.	DATE	REVISIONS	APPROVED	DESIGN	DRAWN	CHECK	IRVINE RANCH WATER DISTRICT	MISCELLANEOUS DETAILS	SHEET
9-83	RECORD DRAWINGS			K.W.S.	A.E.B.	M.L.C.	ZONE III INTERTIE FOR IIC-EAST PROJECT NO. 11320		22 OF 22

Bouje Engineering Corporation
1501 Quail Street
P.O. Box 3030
Newport Beach, California 92663
714 / 752-0505



Karl W. Leibel
RCE 30861
PROJECT ENGINEER
1/12/83
C. Russell Leibel
RCE 17137
PROJECT MANAGER
1/12/83

IRVINE RANCH WATER DISTRICT
ZONE III INTERTIE
FOR IIC-EAST
PROJECT NO. 11320

MISCELLANEOUS
DETAILS

SHEET
22
OF
22



October 4, 2012

Lisa Dowdy
Office of the State Fire Marshal

Subject: Pipeline Location Request (HMC-05.2)

Dear Ms. Dowdy:

The Planning Center | DC&E requests pipeline location information in the vicinity (approximately 1,500-foot radius) of the following sites:

- Proposed Heritage Fields Great Park K8 School Site
Intersection of C Street and 7th Street in unincorporated Orange County, California
- Proposed Heritage Fields Great Park High School 5 Site
Intersection of Marine Way and Perimeter Road in unincorporated Orange County, California

The proposed K8 and high school sites are located on the former Marine Corps Air Station El Toro in the Orange County Thomas Guide 2005, on page 861, grids C3 and C4 and grids E5, E6, F5 and F6, respectively (Please see attached maps for exact locations).

The client for this project is:

Irvine Unified School District
100 Nightmist
Irvine, CA 92618

Please contact me at (909) 989-4449 or by email at mwatson@planningcenter.com with any questions you may have. Thank you for your time.

Sincerely,

THE PLANNING CENTER | DC&E

Michael Watson, PG
Associate Geologist



Office of the State Fire Marshal

Pipeline Safety Division

P.O. Box 944246

Sacramento, CA 94244-2460

Request ID: 10092012SFM003

TO: THE PLANNING CENTER
MICHAEL WATSON
2850 INLAND EMPIRE BLVD #B
ONTARIO, CA 91764

Phone: 909 989 4449
Fax: 909 949 4447

FROM: Lisa Dowdy

Phone: (916) 445-8477
Fax: (916) 445-8526

PIPELINE LOCATION REQUEST FOR:

**C & 7TH
IRVINE, CA 92709**

ORANGE Thomas Brothers Book
Page 861, Grid C3,4

THERE ARE NO PIPELINES JURISDICTIONAL TO THE STATE FIRE MARSHAL
IN THE AREA FOR WHICH YOU HAVE INQUIRED.

- FOR NATURAL GAS PIPELINES PLEASE CONTACT YOUR LOCAL GAS COMPANY

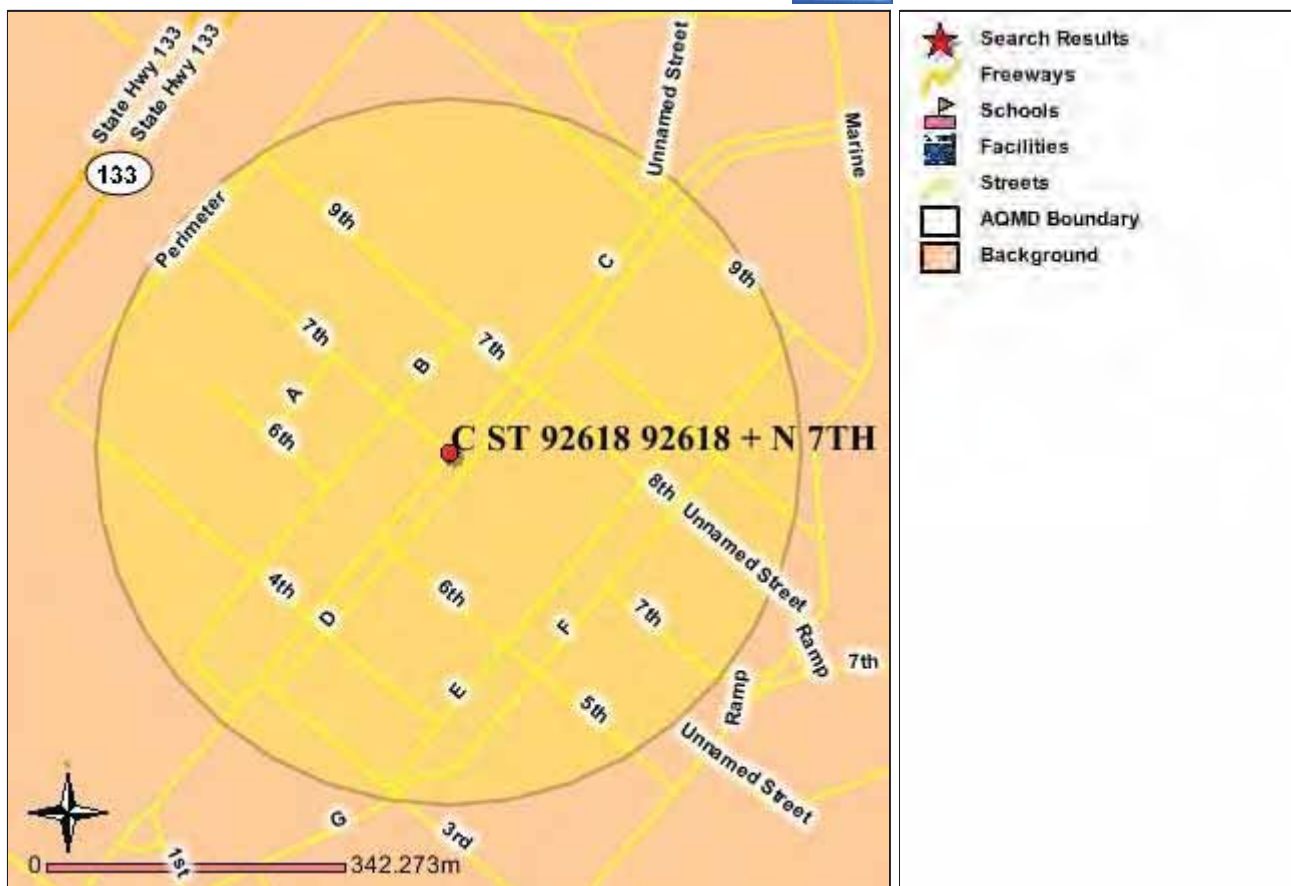
- FOR OTHER TYPES OF PIPELINE PLEASE CONTACT THE DIVISION OF OIL AND GAS AT
(714) 816-6847

- FOR PUBLIC UTILITIES PLEASE CONTACT THE PUBLIC UTILITIES COMMISSION AT (415)
703-2782

Disclaimer: The pipeline information and data represented in this correspondence varies in accuracy, scale, origin and completeness and may be changed at any time without notice. While the Office of the State Fire Marshal, Pipeline Safety Division (OSFM/PSD) makes every effort to provide accurate information, OSFM/PSD makes no warranties as to the suitability of this product for any particular purpose. Any use of this information is at the user's own risk.

For further information or suggestions regarding the data on this site, please contact the Office of the State Fire Marshal, Pipeline Safety Division at P.O. Box 944246, Sacramento, CA 94244 or call (916) 445-8477.

AQMD



Printout generated by AQMD

DISCLAIMER Any information, including but not limited to software and data, received from the South Coast Air Quality Management District ("District") in fulfillment of a request is provided "AS IS" without warranty of any kind, and the District expressly disclaims all express and implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. The District does not warrant, guarantee, or make any representations regarding the use, or the results of the use, of the information provided to you by the District in terms of correctness, accuracy, reliability, timeliness or otherwise. The entire risk as to the results and performance of any information obtained from the District is entirely assumed by the recipient. This map is a conceptual tool only. This map is not self-executing or binding, and does not otherwise affect the interests of any persons including any vested rights or existing uses of real property.

03/12/2013
(11:26 AM)

Appendix

Appendix C Exterior Noise Analysis

Appendix

This page intentionally left blank.

IRVINE K-8 SCHOOL

2017 NO PROJECT

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	29,567	74.9	106	229	493
2	Sand Canyon Ave	South of Trabuco Rd	50,378	79.3	207	447	963
3	Irvine Blvd	East of Sand Canyon Av	31,422	75.2	111	238	514
4	Irvine Blvd	East of Ridge Valley	27,713	74.6	102	219	472
5	Irvine Blvd	West of Modjeska	32,452	75.3	113	244	525
6	Irvine Blvd	East of "B" St	33,791	75.5	116	250	539
7	Trabuco Rd	West of "O" St	17,720	72.1	69	148	320
8	Trabuco Rd	East of "O" St	8,654	69.0	43	92	198
9	"O" St	North of Irvine Bl	12,569	69.0	43	92	198
10	"O" St	South of Irvine Bl	11,435	68.6	40	86	186
11	"O" St	North of "LN" St	5,769	65.6	25	55	118
12	"O" St	South of "LN" St	6,490	66.1	28	59	128
13	"O" St	North of Trabuco Rd	9,890	67.9	36	78	169
14	"O" St	South of Trabuco Rd	721	56.6	6	14	30
15	"LQ" St	West of "C" St	4,327	61.3	13	28	61
16	"LQ" St	East of "C" St	4,533	61.5	14	29	63
17	"LQ" St	West of "A" St	4,224	61.2	13	28	60
18	"LQ" St	East of "A" St	3,297	60.1	11	24	51
19	"LN" St	West of "C" St	1,339	56.2	6	13	28
20	"LN" St	East of "C" St	1,545	56.8	7	14	31
21	"LN" St	West of "A" St	1,545	56.8	7	14	31
22	"LN" St	East of "A" St	1,545	56.8	7	14	31
23	"VV" St	West of "LM" St	927	54.6	5	10	22
24	"VV" St	East of "LM" St	515	52.1	3	7	15
25	"LY" St	South of Irvine Bl	5,563	62.4	16	34	72
26	"LY" St	North of "LQ" St	3,503	60.4	11	25	53
27	"LY" St	South of "LQ" St	3,606	60.5	12	25	54
28	"LM" St	South of "LN" St	824	54.1	4	9	20

IRVINE K-8 SCHOOL

2017 WITH PROJECT OPTION 1 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	28,125	74.7	103	221	477
2	Sand Canyon Ave	South of Trabuco Rd	51,129	79.3	210	451	973
3	Irvine Blvd	East of Sand Canyon Av	34,233	75.5	117	252	544
4	Irvine Blvd	East of Ridge Valley	30,505	75.0	108	234	504
5	Irvine Blvd	West of Modjeska	35,367	75.7	120	258	556
6	Irvine Blvd	East of "B" St	37,118	75.9	124	266	574
7	Trabuco Rd	West of "O" St	23,725	73.4	84	180	388
8	Trabuco Rd	East of "O" St	9,621	69.4	46	99	213
9	"O" St	North of Irvine Bl	12,496	69.0	43	92	198
10	"O" St	South of Irvine Bl	9,641	67.8	36	77	166
11	"O" St	North of "LN" St	6,653	66.2	28	60	130
12	"O" St	South of "LN" St	8,960	67.5	34	73	158
13	"O" St	North of Trabuco Rd	15,759	70.0	50	107	231
14	"O" St	South of Trabuco Rd	4,510	64.5	22	46	100
15	"LQ" St	West of "C" St	4,786	61.7	14	30	65
16	"LQ" St	East of "C" St	5,484	62.3	15	33	72
17	"LQ" St	West of "A" St	4,766	61.7	14	30	65
18	"LQ" St	East of "A" St	3,749	60.7	12	26	56
19	"LN" St	West of "C" St	2,617	59.1	9	20	44
20	"LN" St	East of "C" St	2,650	59.2	9	20	44
21	"LN" St	West of "A" St	1,592	57.0	7	15	31
22	"LN" St	East of "A" St	1,482	56.6	6	14	30
23	"VV" St	West of "LM" St	1,389	56.4	6	13	29
24	"VV" St	East of "LM" St	1,078	55.3	5	11	24
25	"LY" St	South of Irvine Bl	3,410	60.3	11	24	52
26	"LY" St	North of "LQ" St	2,173	58.3	8	18	39
27	"LY" St	South of "LQ" St	2,263	58.5	9	18	40
28	"LM" St	South of "LN" St	1,283	56.0	6	13	27

IRVINE K-8 SCHOOL

2017 WITH PROJECT OPTION 2 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	28,228	74.7	103	222	478
2	Sand Canyon Ave	South of Trabuco Rd	50,820	79.3	209	450	969
3	Irvine Blvd	East of Sand Canyon Av	34,027	75.5	117	251	542
4	Irvine Blvd	East of Ridge Valley	30,402	75.0	108	233	502
5	Irvine Blvd	West of Modjeska	35,367	75.7	120	258	556
6	Irvine Blvd	East of "B" St	37,118	75.9	124	266	574
7	Trabuco Rd	West of "O" St	23,519	73.3	83	179	386
8	Trabuco Rd	East of "O" St	10,548	69.8	49	105	226
9	"O" St	North of Irvine Bl	12,496	69.0	43	92	198
10	"O" St	South of Irvine Bl	9,332	67.7	35	75	163
11	"O" St	North of "LN" St	5,726	65.6	25	55	117
12	"O" St	South of "LN" St	7,920	67.0	31	68	146
13	"O" St	North of Trabuco Rd	14,513	69.6	47	101	218
14	"O" St	South of Trabuco Rd	4,490	64.5	22	46	100
15	"LQ" St	West of "C" St	3,653	60.6	12	25	55
16	"LQ" St	East of "C" St	5,165	62.1	15	32	69
17	"LQ" St	West of "A" St	4,663	61.6	14	30	64
18	"LQ" St	East of "A" St	3,543	60.4	12	25	53
19	"LN" St	West of "C" St	2,740	59.3	10	21	45
20	"LN" St	East of "C" St	2,773	59.4	10	21	45
21	"LN" St	West of "A" St	1,592	57.0	7	15	31
22	"LN" St	East of "A" St	1,482	56.6	6	14	30
23	"VV" St	West of "LM" St	1,369	56.3	6	13	28
24	"VV" St	East of "LM" St	975	54.8	5	10	23
25	"LY" St	South of Irvine Bl	3,616	60.5	12	25	54
26	"LY" St	North of "LQ" St	2,296	58.6	9	19	40
27	"LY" St	South of "LQ" St	2,460	58.9	9	19	42
28	"LM" St	South of "LN" St	1,283	56.0	6	13	27

IRVINE K-8 SCHOOL

2030 NO PROJECT NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	30,600	75.1	109	234	505
2	Sand Canyon Ave	South of Trabuco Rd	48,000	79.1	201	433	933
3	Irvine Blvd	East of Sand Canyon Av	34,100	75.5	117	252	542
4	Irvine Blvd	East of Ridge Valley	34,600	75.6	118	254	548
5	Irvine Blvd	West of Modjeska	40,400	76.3	131	282	607
6	Irvine Blvd	East of "B" St	40,400	76.3	131	282	607
7	Trabuco Rd	West of "O" St	30,600	74.5	99	214	460
8	Trabuco Rd	East of "O" St	11,400	70.2	51	111	238
9	"O" St	North of Irvine Bl	14,700	69.7	47	102	220
10	"O" St	South of Irvine Bl	11,000	68.4	39	84	181
11	"O" St	North of "LN" St	9,300	67.7	35	75	162
12	"O" St	South of "LN" St	11,500	68.6	40	87	187
13	"O" St	North of Trabuco Rd	20,900	71.2	60	129	278
14	"O" St	South of Trabuco Rd	12,700	69.0	43	93	200
15	"LQ" St	West of "C" St	6,100	62.8	17	36	77
16	"LQ" St	East of "C" St	6,300	62.9	17	36	78
17	"LQ" St	West of "A" St	6,300	62.9	17	36	78
18	"LQ" St	East of "A" St	6,700	63.2	18	38	82
19	"LN" St	West of "C" St	1,800	57.5	7	16	34
20	"LN" St	East of "C" St	2,000	58.0	8	17	37
21	"LN" St	West of "A" St	1,500	56.7	6	14	30
22	"LN" St	East of "A" St	1,400	56.4	6	13	29
23	"VV" St	West of "LM" St	1,500	56.7	6	14	30
24	"VV" St	East of "LM" St	600	52.7	4	8	16
25	"LY" St	South of Irvine Bl	2,600	59.1	9	20	43
26	"LY" St	North of "LQ" St	2,200	58.4	8	18	39
27	"LY" St	South of "LQ" St	2,500	58.9	9	20	42
28	"LM" St	South of "LN" St	1,100	55.4	5	11	25

IRVINE K-8 SCHOOL

2030 WITH PROJECT OPTION 1 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	30,400	75.0	108	233	502
2	Sand Canyon Ave	South of Trabuco Rd	48,330	79.1	202	435	937
3	Irvine Blvd	East of Sand Canyon Av	38,530	76.1	127	273	588
4	Irvine Blvd	East of Ridge Valley	39,310	76.1	128	277	596
5	Irvine Blvd	West of Modjeska	45,430	76.8	141	305	657
6	Irvine Blvd	East of "B" St	44,030	76.6	139	298	643
7	Trabuco Rd	West of "O" St	34,230	74.9	107	230	496
8	Trabuco Rd	East of "O" St	11,240	70.1	51	110	236
9	"O" St	North of Irvine Bl	14,630	69.6	47	102	220
10	"O" St	South of Irvine Bl	10,260	68.1	37	80	173
11	"O" St	North of "LN" St	9,460	67.7	35	76	164
12	"O" St	South of "LN" St	12,600	69.0	43	92	199
13	"O" St	North of Trabuco Rd	23,200	71.6	64	139	298
14	"O" St	South of Trabuco Rd	13,880	69.4	46	98	212
15	"LQ" St	West of "C" St	7,050	63.4	18	39	85
16	"LQ" St	East of "C" St	7,330	63.6	19	40	87
17	"LQ" St	West of "A" St	7,230	63.5	19	40	86
18	"LQ" St	East of "A" St	7,040	63.4	18	39	84
19	"LN" St	West of "C" St	2,960	59.7	10	22	47
20	"LN" St	East of "C" St	2,980	59.7	10	22	48
21	"LN" St	West of "A" St	1,750	57.4	7	16	33
22	"LN" St	East of "A" St	1,640	57.1	7	15	32
23	"VV" St	West of "LM" St	1,650	57.1	7	15	32
24	"VV" St	East of "LM" St	1,060	55.2	5	11	24
25	"LY" St	South of Irvine Bl	2,510	58.9	9	20	42
26	"LY" St	North of "LQ" St	2,410	58.8	9	19	41
27	"LY" St	South of "LQ" St	3,000	59.7	10	22	48
28	"LM" St	South of "LN" St	1,350	56.2	6	13	28

IRVINE K-8 SCHOOL

2030 WITH PROJECT OPTION 2 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	30,500	75.0	108	234	503
2	Sand Canyon Ave	South of Trabuco Rd	48,330	79.1	202	435	937
3	Irvine Blvd	East of Sand Canyon Av	38,330	76.0	126	272	586
4	Irvine Blvd	East of Ridge Valley	39,210	76.1	128	276	595
5	Irvine Blvd	West of Modjeska	45,330	76.8	141	304	656
6	Irvine Blvd	East of "B" St	44,030	76.6	139	298	643
7	Trabuco Rd	West of "O" St	34,430	75.0	107	231	498
8	Trabuco Rd	East of "O" St	12,440	70.5	54	117	253
9	"O" St	North of Irvine Bl	14,530	69.6	47	101	219
10	"O" St	South of Irvine Bl	9,960	68.0	37	79	170
11	"O" St	North of "LN" St	8,760	67.4	34	72	156
12	"O" St	South of "LN" St	11,990	68.8	41	89	192
13	"O" St	North of Trabuco Rd	21,690	71.3	61	132	285
14	"O" St	South of Trabuco Rd	13,360	69.2	45	96	207
15	"LQ" St	West of "C" St	5,850	62.6	16	35	75
16	"LQ" St	East of "C" St	7,020	63.4	18	39	84
17	"LQ" St	West of "A" St	7,230	63.5	19	40	86
18	"LQ" St	East of "A" St	7,040	63.4	18	39	84
19	"LN" St	West of "C" St	3,280	60.1	11	24	51
20	"LN" St	East of "C" St	3,100	59.9	11	23	49
21	"LN" St	West of "A" St	1,750	57.4	7	16	33
22	"LN" St	East of "A" St	1,640	57.1	7	15	32
23	"VV" St	West of "LM" St	2,030	58.0	8	17	37
24	"VV" St	East of "LM" St	2,160	58.3	8	18	38
25	"LY" St	South of Irvine Bl	2,610	59.1	9	20	44
26	"LY" St	North of "LQ" St	2,430	58.8	9	19	42
27	"LY" St	South of "LQ" St	3,190	60.0	11	23	50
28	"LM" St	South of "LN" St	1,450	56.6	6	14	29

IRVINE K-8 SCHOOL

P-2030 NO PROJECT NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	32,000	75.3	112	241	520
2	Sand Canyon Ave	South of Trabuco Rd	50,300	79.3	207	447	962
3	Irvine Blvd	East of Sand Canyon Av	36,600	75.8	122	264	569
4	Irvine Blvd	East of Ridge Valley	37,700	76.0	125	269	580
5	Irvine Blvd	West of Modjeska	43,000	76.5	136	294	633
6	Irvine Blvd	East of "B" St	41,700	76.4	134	288	620
7	Trabuco Rd	West of "O" St	34,100	74.9	107	230	495
8	Trabuco Rd	East of "O" St	11,200	70.1	51	109	235
9	"O" St	North of Irvine Bl	16,600	70.2	51	111	239
10	"O" St	South of Irvine Bl	10,600	68.2	38	82	177
11	"O" St	North of "LN" St	9,500	67.8	35	76	165
12	"O" St	South of "LN" St	12,500	69.0	43	92	198
13	"O" St	North of Trabuco Rd	22,900	71.6	64	137	296
14	"O" St	South of Trabuco Rd	13,900	69.4	46	98	212
15	"LQ" St	West of "C" St	6,800	63.3	18	38	83
16	"LQ" St	East of "C" St	7,100	63.5	18	39	85
17	"LQ" St	West of "A" St	7,100	63.5	18	39	85
18	"LQ" St	East of "A" St	7,000	63.4	18	39	84
19	"LN" St	West of "C" St	2,200	58.4	8	18	39
20	"LN" St	East of "C" St	2,500	58.9	9	20	42
21	"LN" St	West of "A" St	1,500	56.7	6	14	30
22	"LN" St	East of "A" St	1,500	56.7	6	14	30
23	"VV" St	West of "LM" St	1,600	57.0	7	15	31
24	"VV" St	East of "LM" St	600	52.7	4	8	16
25	"LY" St	South of Irvine Bl	2,100	58.2	8	18	38
26	"LY" St	North of "LQ" St	2,300	58.6	9	19	40
27	"LY" St	South of "LQ" St	2,600	59.1	9	20	43
28	"LM" St	South of "LN" St	1,200	55.7	6	12	26

IRVINE K-8 SCHOOL
P-2030 PROJECT OPTION1 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTANCE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	32,000	75.3	112	241	520
2	Sand Canyon Ave	South of Trabuco Rd	50,330	79.3	207	447	962
3	Irvine Blvd	East of Sand Canyon Av	36,630	75.8	123	264	569
4	Irvine Blvd	East of Ridge Valley	37,710	76.0	125	269	580
5	Irvine Blvd	West of Modjeska	43,030	76.5	136	294	633
6	Irvine Blvd	East of "B" St	41,730	76.4	134	288	620
7	Trabuco Rd	West of "O" St	34,130	74.9	107	230	495
8	Trabuco Rd	East of "O" St	11,240	70.1	51	110	236
9	"O" St	North of Irvine Bl	16,630	70.2	52	111	239
10	"O" St	South of Irvine Bl	10,660	68.3	38	82	178
11	"O" St	North of "LN" St	9,560	67.8	36	77	165
12	"O" St	South of "LN" St	12,600	69.0	43	92	199
13	"O" St	North of Trabuco Rd	23,000	71.6	64	138	297
14	"O" St	South of Trabuco Rd	13,980	69.4	46	99	213
15	"LQ" St	West of "C" St	6,950	63.4	18	39	84
16	"LQ" St	East of "C" St	7,330	63.6	19	40	87
17	"LQ" St	West of "A" St	7,230	63.5	19	40	86
18	"LQ" St	East of "A" St	7,040	63.4	18	39	84
19	"LN" St	West of "C" St	2,860	59.5	10	22	46
20	"LN" St	East of "C" St	2,780	59.4	10	21	45
21	"LN" St	West of "A" St	1,650	57.1	7	15	32
22	"LN" St	East of "A" St	1,540	56.8	7	14	31
23	"VV" St	West of "LM" St	1,650	57.1	7	15	32
24	"VV" St	East of "LM" St	1,060	55.2	5	11	24
25	"LY" St	South of Irvine Bl	2,110	58.2	8	18	38
26	"LY" St	North of "LQ" St	2,310	58.6	9	19	40
27	"LY" St	South of "LQ" St	2,700	59.3	10	21	45
28	"LM" St	South of "LN" St	1,350	56.2	6	13	28

IRVINE K-8 SCHOOL
P-2030 PROJECT OPTION2 NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFIC VOLUMES	NOISE LEVEL AT 50 FT. (dBA CNEL)	DISTACE TO NOISE CONTOUR (FT.)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sand Canyon Ave	South of Irvine Bl	32,000	75.3	112	241	520
2	Sand Canyon Ave	South of Trabuco Rd	50,330	79.3	207	447	962
3	Irvine Blvd	East of Sand Canyon Av	36,430	75.8	122	263	567
4	Irvine Blvd	East of Ridge Valley	37,710	76.0	125	269	580
5	Irvine Blvd	West of Modjeska	43,030	76.5	136	294	633
6	Irvine Blvd	East of "B" St	41,730	76.4	134	288	620
7	Trabuco Rd	West of "O" St	34,430	75.0	107	231	498
8	Trabuco Rd	East of "O" St	12,440	70.5	54	117	253
9	"O" St	North of Irvine Bl	16,630	70.2	52	111	239
10	"O" St	South of Irvine Bl	10,460	68.2	38	81	176
11	"O" St	North of "LN" St	8,960	67.5	34	73	158
12	"O" St	South of "LN" St	11,990	68.8	41	89	192
13	"O" St	North of Trabuco Rd	21,490	71.3	61	132	284
14	"O" St	South of Trabuco Rd	13,460	69.3	45	96	208
15	"LQ" St	West of "C" St	5,750	62.5	16	34	74
16	"LQ" St	East of "C" St	7,020	63.4	18	39	84
17	"LQ" St	West of "A" St	7,130	63.5	18	40	85
18	"LQ" St	East of "A" St	6,940	63.4	18	39	84
19	"LN" St	West of "C" St	3,080	59.8	10	23	49
20	"LN" St	East of "C" St	3,000	59.7	10	22	48
21	"LN" St	West of "A" St	1,650	57.1	7	15	32
22	"LN" St	East of "A" St	1,540	56.8	7	14	31
23	"VV" St	West of "LM" St	1,730	57.3	7	15	33
24	"VV" St	East of "LM" St	1,060	55.2	5	11	24
25	"LY" St	South of Irvine Bl	2,310	58.6	9	19	40
26	"LY" St	North of "LQ" St	2,230	58.4	8	18	39
27	"LY" St	South of "LQ" St	2,890	59.6	10	22	47
28	"LM" St	South of "LN" St	1,450	56.6	6	14	29

Appendix

Appendix D Traffic Analysis Report

Appendix

This page intentionally left blank.

Irvine Unified School District
K-8 School Project
Traffic Impact Analysis Report

DRAFT

Prepared by:



February 2014

Table of Contents

Executive Summary	1
1. Introduction	5
1.1 Background.....	5
2. Analysis Methodology.....	9
2.2 Intersection Analysis	10
2.3 Traffic Count Data	12
2.4 Forecast Traffic Volumes	12
2.5 Traffic Analysis Performance Criteria.....	12
3. Existing Conditions	13
3.1 Roadway conditions.....	13
4. Future Traffic Without the Proposed Project.....	15
4.1 Projected Traffic and Level of Service (LOS)	15
4.2 Year 2030	21
5. Proposed Project	30
5.1 Project Description.....	30
5.2 Trip Generation	30
5.3 Trip Distribution	30
6. Existing Conditions With Proposed Project	32
7. Future Conditions With Proposed Project.....	38
7.1 Projected Traffic and LOS.....	38
7.2 Year 2030	46
7.3 Post-2030	55
8. Special Analyses.....	64
8.1 Site Access Analysis	64
8.2 Parking Analysis.....	68
8.3 Pedestrian and Bicycle Circulation.....	69
9. Congestion Management Program (CMP) Requirements.....	70
10. Recommended Mitigation Measures.....	71
11. Conclusion	72

APPENDIX

Table of Figures

Figure 1.1 Project Study Area	7
Figure 1.2 Proposed Site Plan	8
Figure 3.1 Existing Study Intersection Geometry and Control.....	14
Figure 4.1 Year 2017 Intersection Geometry and Control – 2011 Approved Project	16
Figure 4.2 Year 2017 Intersection Geometry and Control – 2012 Modified Project Options 1 & 2.....	17
Figure 4.3 Year 2017 Peak Hour Volumes – 2011 Approved Project – No Project	18
Figure 4.4 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 1 – No Project	19
Figure 4.5 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 2 – No Project	20
Figure 4.6 Year 2030 & Post 2030 Intersection Geometry and Control.....	22
Figure 4.7 Year 2030 Peak Hour Volumes – 2011 Approved Project – No Project	23
Figure 4.8 Year 2030 Peak Hour Volumes – 2012 Modified Project Option 1 – No Project	24
Figure 4.9 Year 2030 Peak Hour Volumes – 2012 Modified Project Option 2 – No Project	25
Figure 4.10 Post 2030 Peak Hour Volumes – 2011 Approved Project – No Project	27
Figure 4.11 Post 2030 Peak Hour Volumes – 2012 Modified Project Options 1 – No Project	28
Figure 4.12 Post 2030 Peak Hour Volumes – 2012 Modified Project Option 2 – No Project	29
Figure 6.1 Year 2014 Peak Hour Volumes – 2011 Approved Project – With Project	35
Figure 6.2 Year 2014 Peak Hour Volumes – 2012 Modified Project Options 1 – With Project	36
Figure 6.3 Year 2014 Peak Hour Volumes – 2012 Modified Project Options 2 – With Project	37
Figure 7.1 Year 2017 Peak Hour Volumes – 2011 Approved Project – With Project	43
Figure 7.2 Year 2017 Peak Hour Volumes – 2012 Modified Project Option 1 – With Project	44
Figure 7.3 Year 2017 Peak Hour Volumes – 2012 Modified Project Option 2 – With Project	45
Figure 7.4 Year 2030 Peak Hour Volumes – 2011 Approved Project – With Project	52
Figure 7.5 Year 2030 Peak Hour Volumes – 2012 Modified Project Option 1 – With Project	53
Figure 7.6 Year 2030 Peak Hour Volumes – 2012 Modified Project Option 2 – With Project	54
Figure 7.7 Post 2030 Peak Hour Volumes – 2011 Approved Project – With Project	61
Figure 7.8 Post 2030 Peak Hour Volumes – 2012 Modified Project Option 1 – With Project	62
Figure 7.9 Post 2030 Peak Hour Volumes – 2012 Modified Project Option 2 – With Project	63
Exhibit 8.1 - Sight Distance Triangles for 4-Legged Intersections.....	67
Exhibit 8.2 - Sight Distance Triangles for 3-Legged Intersections.....	67

Table of Tables

Table 2-1 Level of Service Description.....	10
Table 2-2 Peak Hour ICU Assumptions and Performance Standards	11
Table 3-1 Year 2014 ADT Volumes – No Project.....	13
Table 4-1 Year 2017 Peak Hour Intersection LOS – No Project	15
Table 4-2 Year 2030 Peak Hour Intersection LOS – No Project	21
Table 4-3 Post-2030 Peak Hour Intersection LOS – No Project	26
Table 6-1 Year 2014 (2011 Approved Project) Arterial Level of Service.....	33
Table 6-2 Year 2014 (2012 Modified Project Option 1) Arterial Level of Service.....	33
Table 6-3 Year 2014 (2012 Modified Project Option 2) Arterial Level of Service.....	33
Table 6-4 Year 2014 Peak Hour Intersection LOS – 2011 Approved Project.....	33
Table 6-5 Year 2014 (2012 Modified Project Option 1) Peak Hour Intersection LOS – With Project	34
Table 6-6 Year 2014 (2012 Modified Project Option 2) Peak Hour Intersection LOS – With Project	34
Table 7-1 Year 2017 (2011 Approved Project) Arterial Level of Service.....	38
Table 7-2 Year 2017 (2012 Modified Project Option 1) Arterial Level of Service.....	39
Table 7-3 Year 2017 (2012 Modified Project Option 2) Arterial Level of Service.....	40
Table 7-4 Year 2017 (2011 Approved Project) Peak Hour Intersection LOS Comparison	41
Table 7-5 Year 2017 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison	41
Table 7-6 Year 2017 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison	42
Table 7-7 Year 2030 (2011 Approved Project) Arterial Level of Service.....	47
Table 7-8 Year 2030 (2012 Modified Project Option 1) Arterial Level of Service.....	48
Table 7-9 Year 2030 (2012 Modified Project Option 2) Arterial Level of Service.....	49
Table 7-10 Year 2030 (2011 Approved Project) With Project Peak Hour Intersection LOS Comparison	50
Table 7-11 Year 2030 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison	50
Table 7-12 Year 2030 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison	51
Table 7-13 Post-2030 (2011 Approved Project) Arterial Level of Service	56
Table 7-14 Post-2030 (2012 Modified Project Option 1) Arterial Level of Service	57
Table 7-15 Post-2030 (2012 Modified Project Option 2) Arterial Level of Service	58
Table 7-16 Post-2030 (2011 Approved Project) Peak Hour Intersection LOS Comparison	59
Table 7-17 Post-2030 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison	59
Table 7-18 Post-2030 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison	60
Table 8-1: Site Access Analysis – Year 2014	64
Table 8-2: Site Access Analysis – Year 2017	64
Table 8-3: Site Access Analysis – Year 2030	65
Table 8-4: Site Access Analysis – Post 2030	65
Table 8-5: MUTCD Signal Warrants	65
Table 8-6 Sight Distance Minimum Standards – Project Intersections	68
Table 8-7 ITE Parking Generation – Elementary School	68
Table 8-8 Similar Site Parking Ratios	68

Executive Summary

The Irvine Unified School District plans to build a new K-8 school facility on an 11.5-acre site on the southeast corner of the future "O" Street and "LN" Street, east of Sand Canyon Avenue and State Route 133 and west of Alton Parkway. The project site is located within a portion of the former Marine Corps Air Station El Toro (MCAS El Toro), in Planning Area 51, Orange County Great Park, as designated in the City of Irvine General Plan.

The school is scheduled to open in the year 2016 with a capacity of 1,000 students. Based on rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, The K-8 school is expected to generate up to 1,710 vehicle trips on a typical weekday, with 420 trips (286 inbound and 134 outbound) during the AM peak hour.

As part of the Great Park Neighborhoods Project, the MCAS El Toro site will be developed into master-planned neighborhoods or "Districts" that include a variety of housing, shops, restaurants, workplaces, educational institutions, parks, trails and outdoor activities. In 2011, the Heritage Fields/Great Park Neighborhoods Project was approved (the "2011 Approved Project") to develop 4,712 residential housing units and over six million square feet of non-residential uses in the buildout condition. The 2011 Approved Project includes the 1,000-student K-8 school in the buildout scenario.

In 2012, a General Plan Amendment and Zone Change (the "2012 Modified Project") was prepared that included two development options with an increase in residential development units and a decrease in non-residential acreage compared to the 2011 Approved Project. The 2012 Modified Project Options 1 and 2 each include 9,318 residential dwelling units but propose a slightly different allocation of those units between neighborhood Districts 1N and 1S. The environmental impact report for the 2012 Modified Project was approved and certified by the City of Irvine in 2013. In both the 2012 Modified Project Options 1 and 2, a 1,000-student K-8 school is included in the buildout scenario.

For the purpose of this analysis, all future conditions are based on the roadway and traffic assumptions used in the environmental documents prepared for the Heritage Fields/Great Park Neighborhoods 2011 Approved Project and 2012 Modified Project Options 1 and 2.

A total of 15 intersections have been included in this analysis, all of which are proposed future intersections that will be constructed as part of the Heritage Fields/Great Parks Neighborhood project. Five intersections are site access driveways that will be constructed as part of the K-8 school project. The analysis has been conducted for the weekday AM peak hour and the weekday daily time periods. No PM peak hour analysis is included as a K-8 school's trip generation pattern does not overlap with the typical PM peak hour for adjacent street traffic (between 4:00pm and 6:00pm).

The following traffic conditions were analyzed:

Existing Conditions

- Year 2014 peak hour intersection and 24-hour segment counts

Existing Plus Project Conditions

- Year 2014, 2011 Approved Project

- Year 2014, 2012 Modified Project Option 1
- Year 2014, 2012 Modified Project Option 2

Interim Year 2017 Analysis

- Year 2017, 2011 Approved Project
- Year 2017, 2012 Modified Project Option 1
- Year 2017, 2012 Modified Project Option 2

Interim Year 2030 Analysis

- Year 2030, 2011 Approved Project
- Year 2030, 2012 Modified Project Option 1
- Year 2030, 2012 Modified Project Option 2

Post-2030 Analysis

- Post-2030, 2011 Approved Project
- Post-2030, 2012 Modified Project Option 1
- Post-2030, 2012 Modified Project Option 2

TRAFFIC IMPACT ANALYSIS SUMMARY

The traffic conditions under 2011 Approved Project and 2012 Modified Project with Options 1 and 2 have been identified by analyzing the study area network based on existing traffic conditions, 2017, 2030 and Post-2030 future traffic conditions. For each scenario, traffic conditions without the project are compared to the with project conditions for the 2011 Approved Project and 2012 Modified Project with Options 1 and 2 to identify the potential traffic impacts of the proposed project.

Existing traffic conditions are based on 2012 traffic counts. Future traffic conditions based on the turning movement volumes were provided by the City of Irvine staff from the Irvine Traffic Analysis Model (ITAM). These volumes include ambient traffic growth and reflect changes in land use and development density.

Existing Conditions

An existing no project analysis was not conducted, as none of the study intersections currently exist.

Existing Plus Project Conditions

The results of the existing plus project analysis are summarized in detail in Section 6.0 of this report. Under the existing plus project conditions, all study area segments and intersections are calculated to operate at LOS D or better for all three scenarios. There are no project impacts under the year 2013 scenarios.

Interim Year 2017 Analysis

The results of the Year 2017 plus project analysis are summarized in detail in Section 7.1.1 of this report. The school is proposed for an opening year of 2016, however, per City requirements, the year 2017 is analyzed as the designated "interim" year after the project

opening year. All of the study roadway segments and study intersections are forecast to operate at acceptable levels of service.

Interim Year 2030 Analysis

The results of the Year 2030 plus project analysis are summarized in detail in Section 7.1.2 of this report. The interim year 2030 with project scenarios include one deficient roadway segment for all three scenarios:

- Trabuco Road: West of "O" Street – LOS E/F

All study intersections are forecast to operate at acceptable levels of service. No project-related impacts are forecast for all study roadway segments and intersections.

Post-2030 Analysis

The results of the Post-2030 plus project analysis are summarized in detail in Section 7.1.3 of this report.

The deficient roadway segments in the Post-2030 with project for all three scenarios include:

- Trabuco Road: West of "O" Street – LOS E/F

All study intersections are forecast to operate at acceptable levels of service. No project-related impacts are forecast for all study roadway segments and intersections.

SPECIAL ANALYSES

Site Access - The K-8 School site has five unsignalized access driveways located along "VV" Street, "LM" Street and "LN" Street. All access intersections are forecast to operate at an acceptable level of service during all analysis scenarios

Signal Warrant Analysis - A signal warrant analysis was conducted at all unsignalized study intersections per the Manual on Uniform Traffic Control Devices (MUTCD). Based on the forecast volumes, traffic signals are not warranted at all unsignalized study intersections and site access driveways for all analysis scenarios. However, all access driveways should be reevaluated when the Great Park Neighborhoods development proceeds.

Sight Distance Analysis – Adequate sight distance for access roadways leading up to the K-8 School should be maintained. It is recommended that a clear line of sight be maintained at all access driveways and the intersection of "C" Street and "LM" Street (#613).

Parking Analysis – The K-8 School is proposing to provide 94 surface parking spaces per the most current site plan. The proposed ratio of parking spaces per student is consistent with the two other K-8 schools operated by IUSD in the City of Irvine. No parking demand impacts are anticipated.

Pedestrian and Bicycle Circulation - The preliminary site plan for the K-8 School shows landscaped pedestrian pathways throughout the school with connections to the various surface parking facilities. There are currently Class II bike lanes along Irvine Boulevard, Alton Parkway, and Sand Canyon Avenue. Bicycle lanes may also be provided along other streets located adjacent to the school site as part of the Great Parks Neighborhoods project. It is

recommended that the school provide bicycle lockers or racks on site, as well as signage to increase awareness and safety of bicyclists and pedestrians.

CONGESTION MANAGEMENT PLAN (CMP) REQUIREMENTS

Irvine Boulevard is designated as a CMP roadway within the traffic study area for the K-8 School. No study intersections are designated as CMP intersections.

PROJECT IMPACTS AND RECOMMENDATIONS

Based on the analysis results, no project impacts were identified.

1. Introduction

The Irvine Unified School District plans to build a new K-8 school facility on a 11.5-acre site on the southeast corner of the future “O” Street and “C” Street, east of Sand Canyon and Highway 133 and west of Alton Parkway. The project site is on a portion of the former Marine Corps Air Station El Toro (MCAS El Toro), in Planning Area 51, Orange County Great Park, of the City of Irvine General Plan. The school is scheduled to open in the year 2016 with a capacity of 1,000 students.

1.1 BACKGROUND

1.1.1 Great Park Neighborhoods Development

As part of the Great Park Neighborhoods Project, the MCAS El Toro site will be developed into master-planned neighborhoods or “Districts” that include a variety of housing, shops, restaurants, workplaces, educational institutions, parks, trails and outdoor activities. In 2011, the Heritage Fields/Great Park Neighborhoods Project was approved (the “2011 Approved Project”) to develop 4,712 residential dwelling units (2,741 single family detached and 1,971 multi-family units) and over six million square feet of non-residential uses in the buildout condition. The 2011 Approved Project includes a 1,000-student K-8 school as part of its land use plan.

In 2012, a General Plan Amendment and Zone Change (the “2012 Modified Project”) was prepared that included two development options with an increase in residential development units and a decrease in non-residential acreage compared to the 2011 Approved Project. The Project Area Districts as illustrated in Exhibit 2-2 of the Heritage Fields Project 2012 General Plan Amendment/Zone Change Traffic Study are provided in Figure 1. The 2012 Modified Project Options 1 and 2 each include 9,318 residential dwelling units (3,358 single family detached and 5,960 multi-family units) but propose a slightly different allocation of those units between neighborhood Districts 1N and 1S. In both the 2012 Modified Project Options 1 and 2, a 1,100-student K-8 school is included in the buildout scenario.

The 2012 Modified Project Option 1 proposes the same level of single family detached and multi-family residential development as the 2011 Approved Project, with the following exceptions:

- In District 5, the community recreational and retail land uses proposed in the 2011 Approved Project are replaced with 1,194 single family detached residential units and 1,690 multi-family residential units.
- In District 6, the mortuary, golf, agriculture, educational institution and research and development land uses proposed in the 2011 Approved Project are replaced with 1,722 multi-family residential units along with multi-use land use.
- In District 7, the 840 single family detached residential units proposed in the 2011 Approved Project are replaced with 692 single family detached residential units and 148 multi-family residential units.

The 2012 Modified Project Option 2 proposes the same level of single family detached and multi-family residential development as the 2012 Modified Project Option 1, with the following exceptions:

- In District 1N, 258 additional multi-family residential units are proposed in place of retail land use in Option 2.
- In District 1S, the 429 multi-family residential units proposed in Option 1 are replaced with 171 multi-family residential units plus retail and multi-use land uses.

The levels of residential development proposed in the 2011 Approved Project and 2012 Modified Project Options 1 and 2 in the Year 2015 and Post-2030 conditions are summarized in Table 1.

Table 1 - Residential Development Summary (DUs)¹

District	2015 Conditions			Post-2030 Conditions		
	2011 AP	2012 MP Option 1	2012 MP Option 2	2011 AP	2012 MP Option 1	2012 MP Option 2
1N	494 SFD 1,121 MF	494 SFD 1,121 MF	494 SFD 1,379 MF	494 SFD 1,121 MF	494 SFD 1,121 MF	494 SFD 1,379 MF
1S	-	429 MF	171 MF	429 MF	429 MF	171 MF
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF
Total SFD	988	988	988	988	988	988
Total MF	1,729	2,158	2,158	2,158	2,158	2,158
Total Units	2,717	3,146	3,146	3,146	3,146	3,146

Source: Heritage Fields Project 2012 GPA/ZC Traffic Study Tables 2-1 and 2-2

AP – Approved Project; DU – dwelling units; MF – multi-family; MP – Modified Project; SFD – single family detached

Note: (1) Senior housing units not included in this table and in the trip distribution assumptions.

1.1.2 IUSD Boundaries

The future attendance area for the K-8 school is assumed to be generally bounded by SR-133 to the west, Marine Way to the south, Alton Parkway to the east and Portola Parkway to the north.

Figure 1.1 Project Study Area

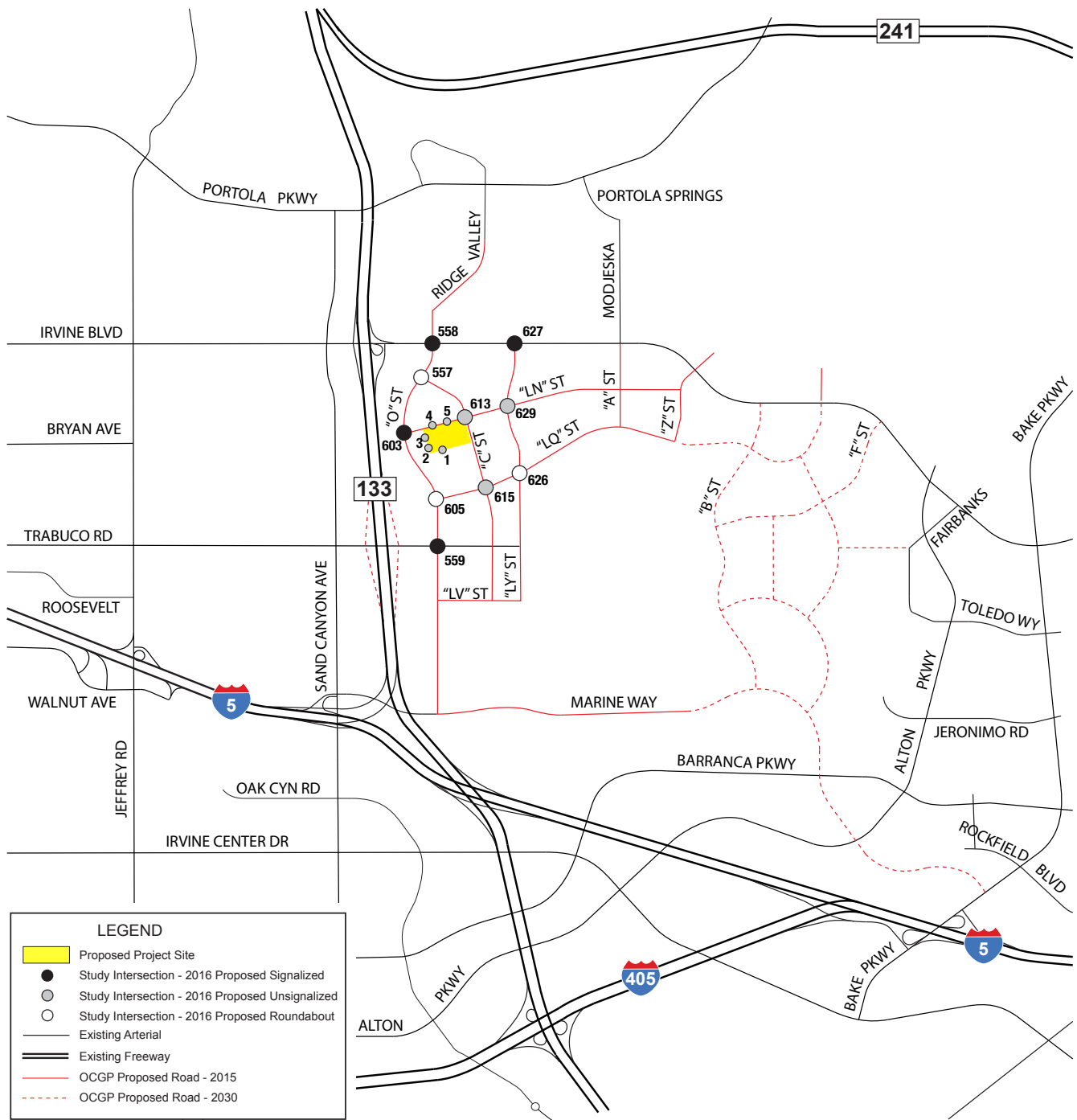
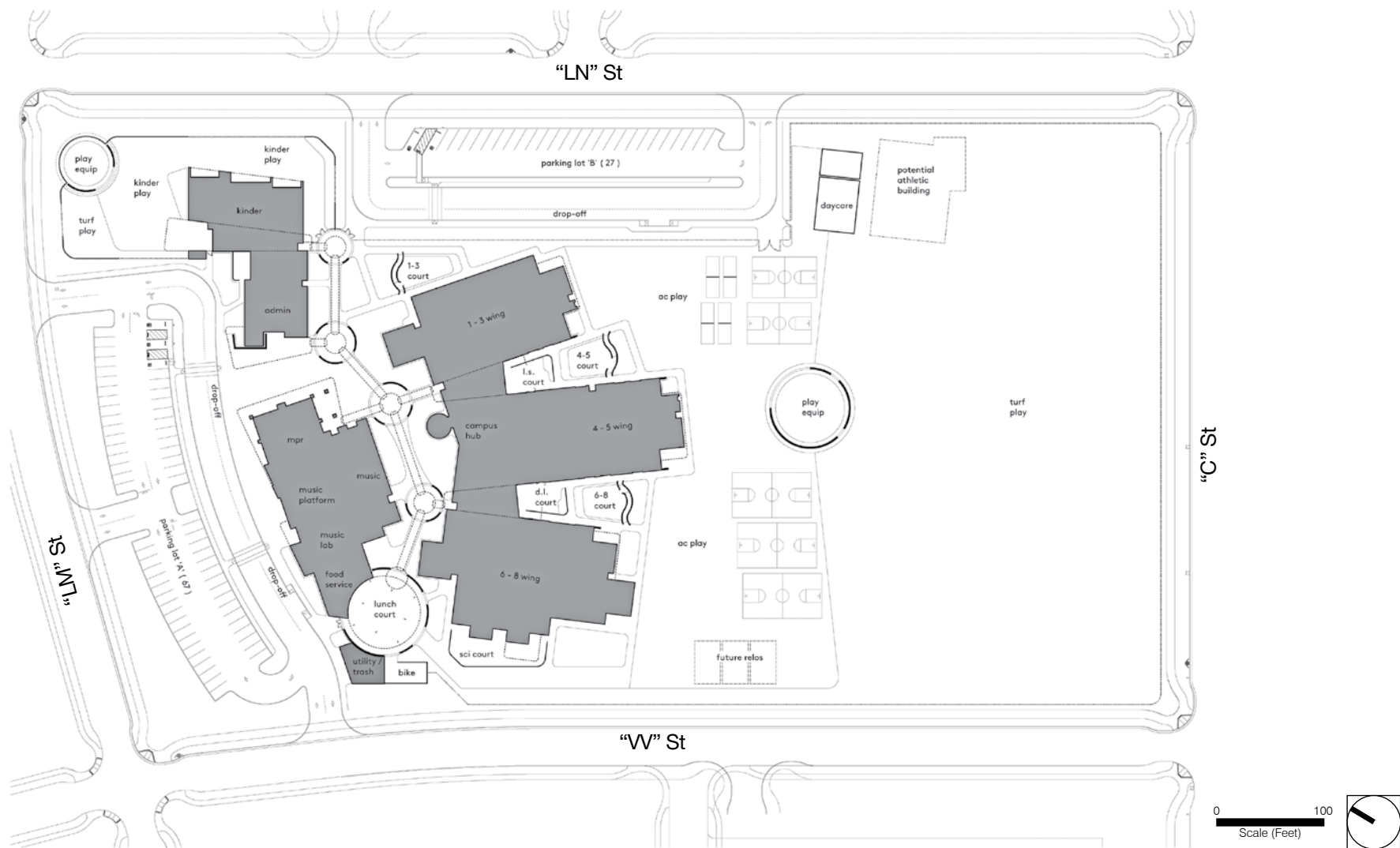


Figure 1.2 Proposed Site Plan



2. Analysis Methodology

The traffic analysis conducted for the K-8 school project includes an assessment of traffic conditions at 15 study intersections for the following analysis timeframes:

- Existing: Year 2014
- Interim: Year 2017
- Interim: Year 2030
- Buildout: Post-2030

The project is scheduled for an opening year of 2016, however, per City requirements, the year 2017 is analyzed as the “interim” year after the project opening year. The intersection analysis methodology and performance criteria used in this analysis conform to the City of Irvine Traffic Impact Analysis Guidelines adopted August 24, 2004.

2.1.1 Analysis Scenarios

The traffic analysis for the K-8 school project will include the following scenarios:

- No Project - 2011 Approved Project
- No Project - 2012 Modified Project Option 1
- No Project - 2012 Modified Project Option 2
- With Project - 2011 Approved Project
- With Project - 2012 Modified Project Option 1
- With Project - 2012 Modified Project Option 2

An AM peak hour analysis of each scenario will be made for the following timeframes:

- Existing Condition (Year 2014)
- Interim (Year 2017)
- Interim (Year 2030)
- Buildout (Post-2030)

2.1.2 Analysis Study Area Intersections

Study intersections include:

1. "B" St & Driveway 1
2. "B" St & Driveway 2
3. Driveway 3 & "LQ" St
4. Driveway 4 & "LQ" St
5. "LQ" St & Driveway 5
6. "O" St & "C" St
7. Ridge Valley/"O" St & Irvine Blvd
8. "O" St & Trabuco Rd
9. "O" St & "LN" St
10. "O" St & "LQ" St
11. "C" St & "LN" St
12. "C" St & "LQ" St
13. "LY" St & "LQ" St

14. "LY" St & Irvine Blvd

15. "LY" St & "LN" St

2.2 INTERSECTION ANALYSIS

Study intersection future forecast traffic conditions are analyzed using the Intersection Capacity Utilization (ICU) methodology adopted in the Orange County Congestion Management Program¹ (CMP). The ICU methodology is based on intersection volume-to-capacity (V/C) ratios. The ICU value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the ICU values for the critical movement on each leg, where the critical movement is the one (left, through, or right) that has the highest ICU value. ICU values are usually expressed as a decimal percent (e.g. 0.74), where 1.00 represents the saturated condition where the volume of traffic flow is equal to the capacity.

The methodology also incorporates a check for right-turn capacity utilization. Right-turn-on-green and right-turn-on-red capacity availability is calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. This calculation utilizes a right-turn-on-red (RTOR) factor², which reflects a lower saturation flow rate for these turning movements. The RTOR factor is not used for dedicated right turns, due to the absence of conflicting movements that would reduce capacity.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of roadways and intersections involves the assignment of grades from "A" to "F," with LOS "A" representing the highest level operating conditions and LOS "F" representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C values, which are described in Table 3-1.

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

Table 2-1 Level of Service Description

Level of Service	ICU Value	Definition
A	0.00 – 0.60	At level of service A there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.61 – 0.70	Level of service B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted within platoons of vehicles.

¹ 1999 Orange County Congestion Management Plan (CMP), OCTA

² City of Irvine, Planning Area 27 Tentative Tract Map Traffic Study, Appendix B – Intersection Capacity Utilization Worksheets

Level of Service	ICU Value	Definition
C	0.71 – 0.80	In level of service C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.81 – 0.90	Level of service D encompasses a zone of increasing restriction, approaching instability. Delay to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.91 – 1.00	Level of service E represents the most vehicles that any particular intersection approach can accommodate. At capacity ($V/C = 1.00$) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.000	Level of service F represents jammed conditions. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.
ICU – Intersection Capacity Utilization Source: City of Irvine Traffic Study Guidelines		

2.2.1 Intersection Analysis Time Period

Traffic conditions with the proposed K-8 school project are evaluated for the weekday AM peak hour. Trip generation for the school during the PM peak hour for adjacent street traffic is anticipated to be minimal and is therefore not included in the analysis.

2.2.2 Performance Standards

The traffic analysis incorporates the performance standards adopted by the City of Irvine. A capacity of 1,700 vehicles per hour per lane (vphpl) is assumed for both through lanes and dedicated turn lanes at the study intersections. Traffic signal phasing in the future condition is assumed to match the existing signal phasing (i.e. existing protected left turn = future protected left turn). The assumptions used in the analysis are summarized in Table 3-2.

Table 2-2 Peak Hour ICU Assumptions and Performance Standards

Saturation Flow Rate	1,700 vehicles per hour per lane
Clearance Interval	0.05 seconds
Right-Turn-On-Red (RTOR)	Allowed
RTOR Saturation Flow Factor	0.75
Minimum Volume/Capacity (V/C)	None

2.3 TRAFFIC COUNT DATA

Intersection turning movement counts were obtained from the *Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, 2012*. The counts were taken in 2012 and the City approved annual growth rate of 1.5% per year was applied to the year 2012 counts to estimate year 2014 volumes.

Existing Average Daily Traffic (ADT) volumes on roadway segments in the vicinity of the project were also obtained from the *Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis*, and were collected in 2012. Forecast ADT was obtained from the new model run provided by the City.

2.4 FORECAST TRAFFIC VOLUMES

The future forecast intersection traffic volumes for year 2017, 2030, and post-2030 were obtained from the City of Irvine Traffic Model (ITAM version 8.4-10). The model is consistent with the model used in the *Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, 2012*; and was updated to exclude the K-8 school as part of no project condition. Updated model runs without the K-8 school were provided by ITAM for the year 2015, 2030, and post 2030 in order to analyze no project conditions. An annual growth rate of 1.5% per year was applied to the year 2015 to estimate year 2017 forecast volumes.

2.5 TRAFFIC ANALYSIS PERFORMANCE CRITERIA

The minimum acceptable level of service for intersections in the City of Irvine located outside of the Irvine Business Complex (IBC) is LOS "D." All of the project study intersections are located outside of the Irvine Business Complex (IBC).

For facilities that are forecast to operate at LOS "E" or LOS "F" in the baseline condition, project traffic is considered to result in a significant impact if it would cause the total ICU to increase by 0.02 or greater. Mitigation measures to return the ICU value back to the "without project" condition are required.

For intersections that are projected to be deficient in the most recent Circulation Phasing Analysis Report, a project-related increase in ICU of 0.01 or greater in the interim year (short term) would require mitigation measures to return the facility to baseline or contribution of fair share towards mitigation back to an acceptable level of service.

3. Existing Conditions

The project study area includes major arterials and intersections located within a 1.5-mile radius of the K-8 school. Descriptions of geometrical features and intersection level of service analysis results are included in this section.

3.1 ROADWAY CONDITIONS

3.1.1 Existing Roadway Network

Selected master plan arterials that provide access to the K-8 school site are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, adjacent land uses, and the City of Irvine General Plan Master Plan of Arterial Highways (MPAH) designation.

Irvine Boulevard is a six lane roadway divided by a landscaped median. On the City of Irvine Master Plan of Arterial Highways, Irvine Boulevard is designated as a Major Highway (generally 6-lanes) between Newport Avenue and the southern city limits south of Alton Parkway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Trabuco Road runs north and south through the study area. On the City of Irvine Master Plan of Arterial Highways, Trabuco Road is designated as a Major Highway between Sand Canyon and the future SR-133 interchange. It is two lanes in each direction divided by a landscaped median. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Marine Way is currently a two-lane undivided roadway between Sand Canyon Avenue and El Toro Boulevard. In the City of Irvine Master Plan of Arterial Highways, Marine Way is designated as a Primary.

3.1.2 Average Daily Traffic (ADT) and Arterial Level of Service (LOS)

Average Daily Traffic (ADT) volumes for the study area network are summarized in Table 3-1. All study area segments currently operate at LOS C or better.

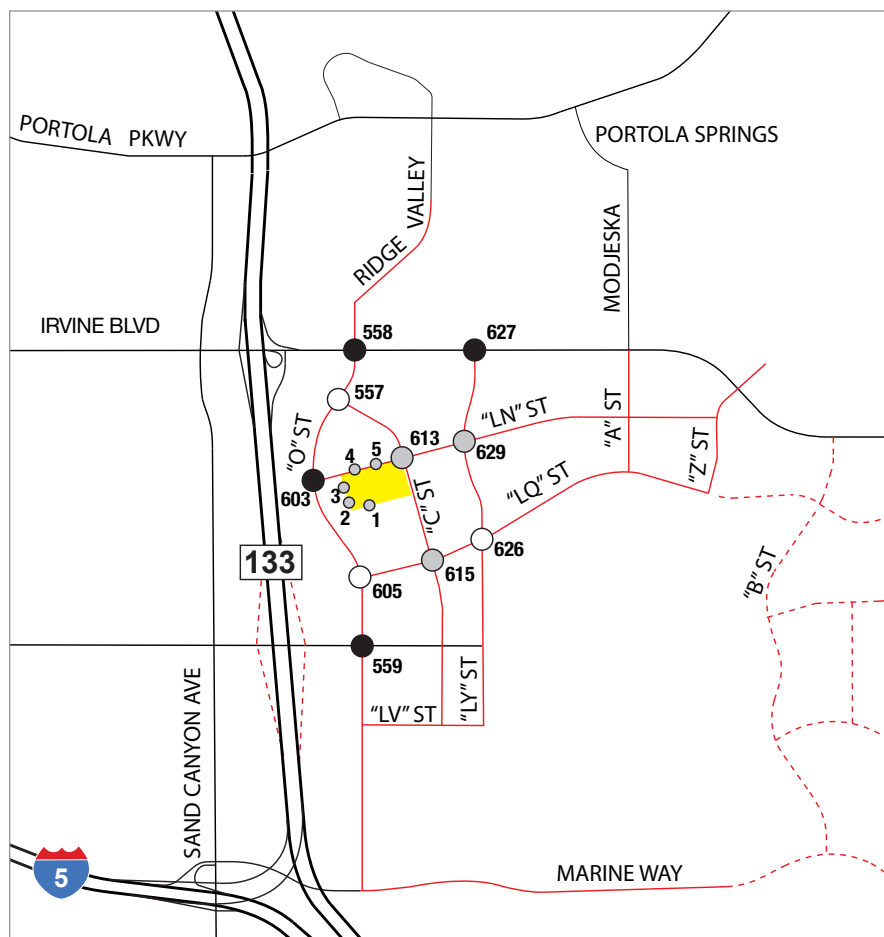
Table 3-1 Year 2014 ADT Volumes – No Project

#	Street Name	Limits	# Lanes	Capacity	2014 NP ADT		
					ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	23,063	0.430	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	28,245	0.390	A
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	18,961	0.350	A
4	Irvine Blvd	East of Ridge Valley	4D	32,000	18,961	0.590	A
5	Irvine Blvd	West of Modjeska	4D	32,000	18,961	0.590	A
6	Irvine Blvd	East of "B" St	6D	54,000	18,961	0.350	A

#D – total number of lanes in both directions divided by a raised median.

An analysis of existing no project intersections is not provided, as there are currently no existing study intersections.

Figure 3.1 Existing Study Intersection Geometry and Control



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ⬇ Stop Sign
- ↪ Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>with Project Geometry</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>with Project Geometry</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>with Project Geometry</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>with Project Geometry</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>with Project Geometry</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>HF/GPN Proposed Future Intersection</p>



4. Future Traffic Without the Proposed Project

This section develops the future No Build conditions in the study area with ambient traffic growth. Ambient traffic growth is the increase in traffic that is expected to occur in the study area due to general employment growth, housing growth and growth in regional through trips. Even if there was no change in housing or employment in the study area, there will be some background (ambient) traffic growth in the region. In addition to the existing condition analysis, the City of Irvine Traffic Impact Analysis Guidelines requires future analysis for two interim years (2017 and 2030) and the buildout condition (post-2030).

City of Irvine staff provided future intersection turning movement volumes from the Irvine Traffic Analysis Model (ITAM). These volumes include ambient traffic growth and reflect changes in land use and development density. It is assumed that the existing lane geometry and control remain unchanged in the No Build analysis.

4.1 PROJECTED TRAFFIC AND LEVEL OF SERVICE (LOS)

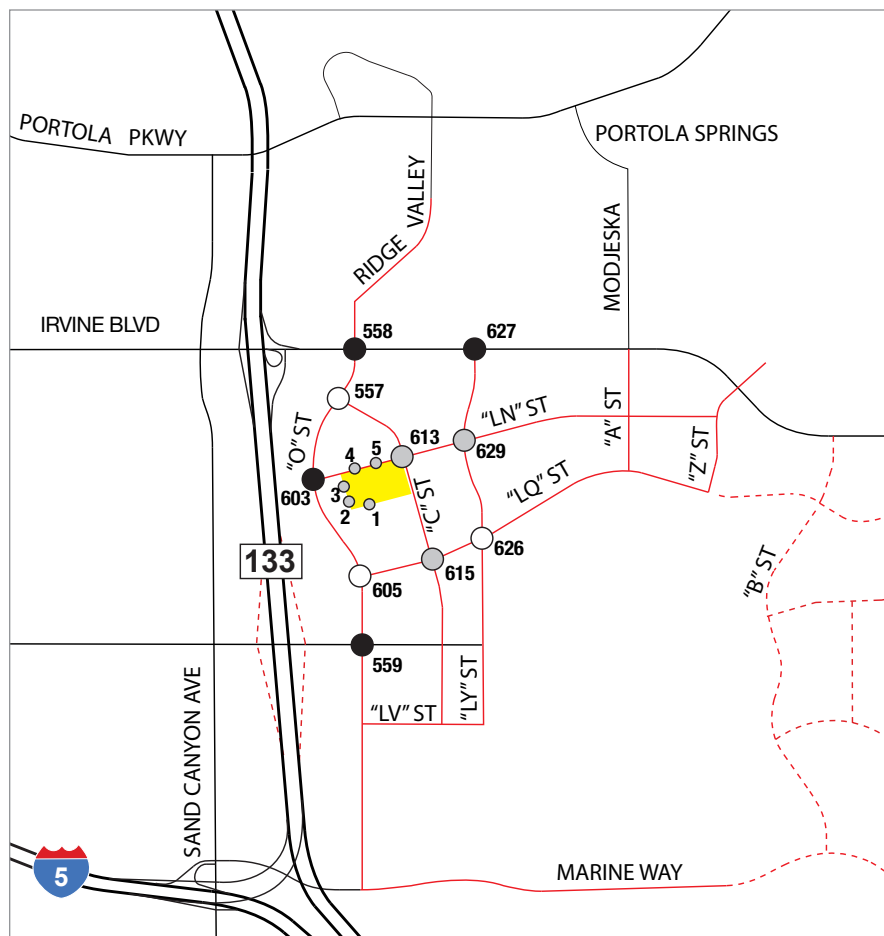
4.1.1 Year 2017

The intersection geometry control for 2017 (2011 Approved Project) are shown in Figure 4.1. The intersection geometry controls for 2017 (2012 Modified Project Options 1 and 2) are shown in Figure 4.2. Year 2017 (2011 Approved Project) forecast intersection volumes are shown in Figure 4.3. Year 2017 (2012 Modified Project Option 1) and Year 2017 (2012 Modified Project Option 2) forecast intersection volumes are shown in Figures 4.4 and 4.5. A summary of the level of service analysis results for the year 2017 no project condition for all three scenarios is included in Table 4-1. All intersections are forecast to operate at acceptable levels of service.

Table 4-1 Year 2017 Peak Hour Intersection LOS – No Project

Intersection		Control	2011 Approved Project		2012 Modified Project Option 1		2012 Modified Project Option 2	
			V/C	LOS	V/C	LOS	V/C	LOS
557	"O" St & "C" St	R	0.37	A	0.33	A	0.33	A
558	Ridge Valley/"O" St & Irvine Blvd	S	0.79	C	0.64	B	0.64	B
559	"O" St & Trabuco Rd	S	0.55	A	0.75	C	0.75	C
603	"O" St & "LN" St	S	0.26	A	0.33	A	0.31	A
605	"O" St & "LQ" St	R	0.40	A	0.47	A	0.48	A
613	"C" St & "LN" St	U	0.25	A	0.25	A	0.29	A
615	"C" St & "LQ" St	U	0.42	A	0.43	A	0.45	A
626	"LY" St & "LQ" St	R	0.51	A	0.47	A	0.46	A
627	"LY" St & Irvine Blvd	S	0.24	A	0.25	A	0.24	A
629	"LY" St & "LN" St	U	0.33	A	0.32	A	0.34	A

Figure 4.1 Year 2017 Intersection Geometry & Control - 2011 Approved Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Movement Volume
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

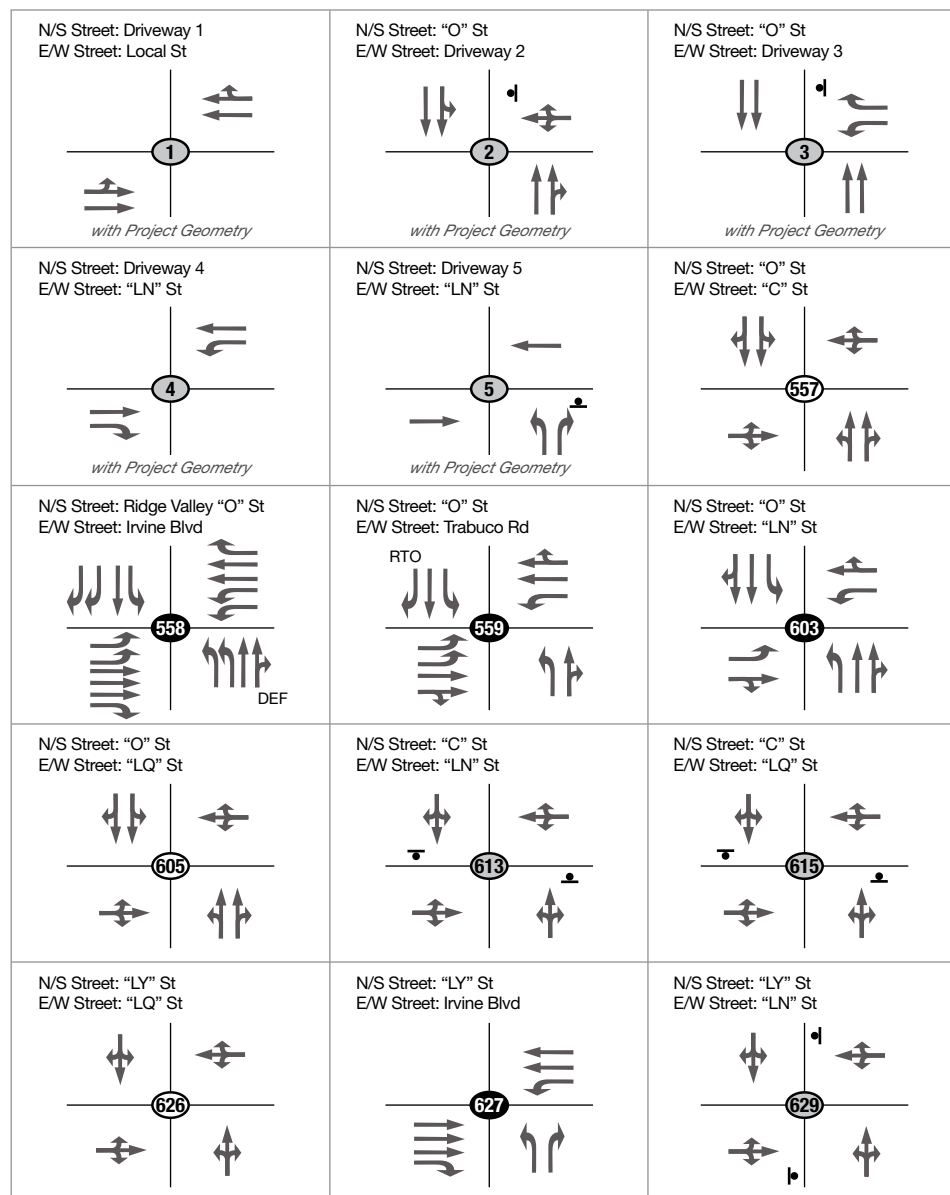
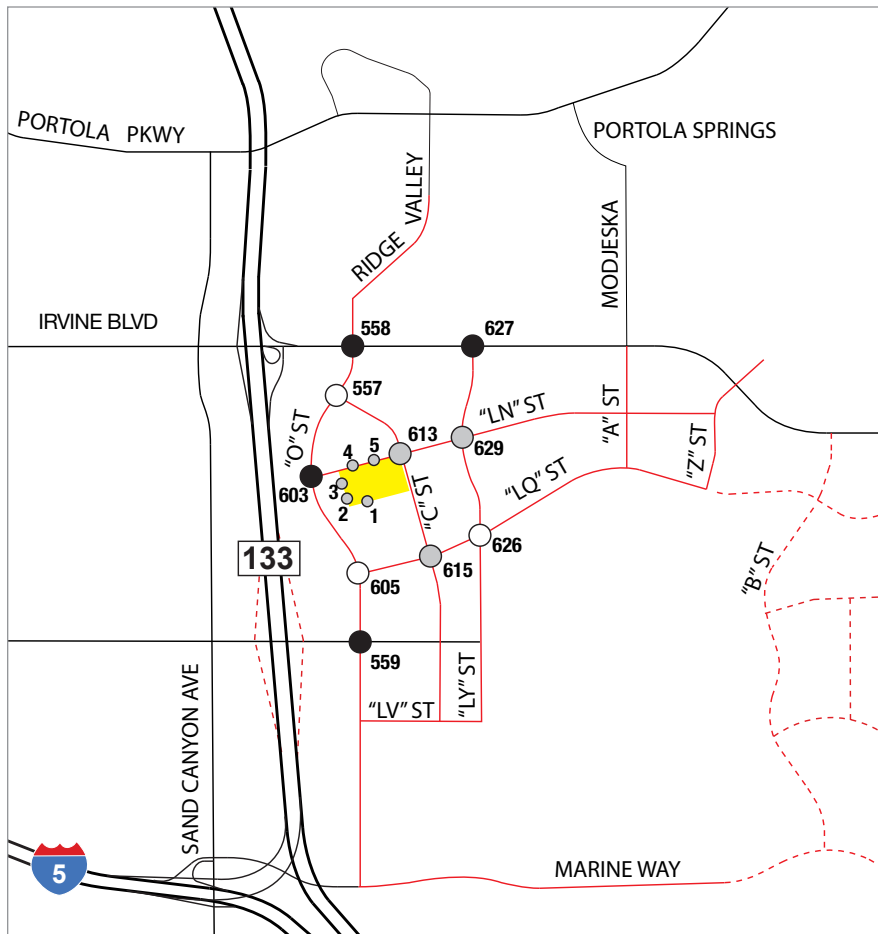


Figure 4.2 Year 2017 Intersection Geometry & Control - 2012 Modified Project Options 1 & 2



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ↔ Stop Sign Movement Volume
- ↔ Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

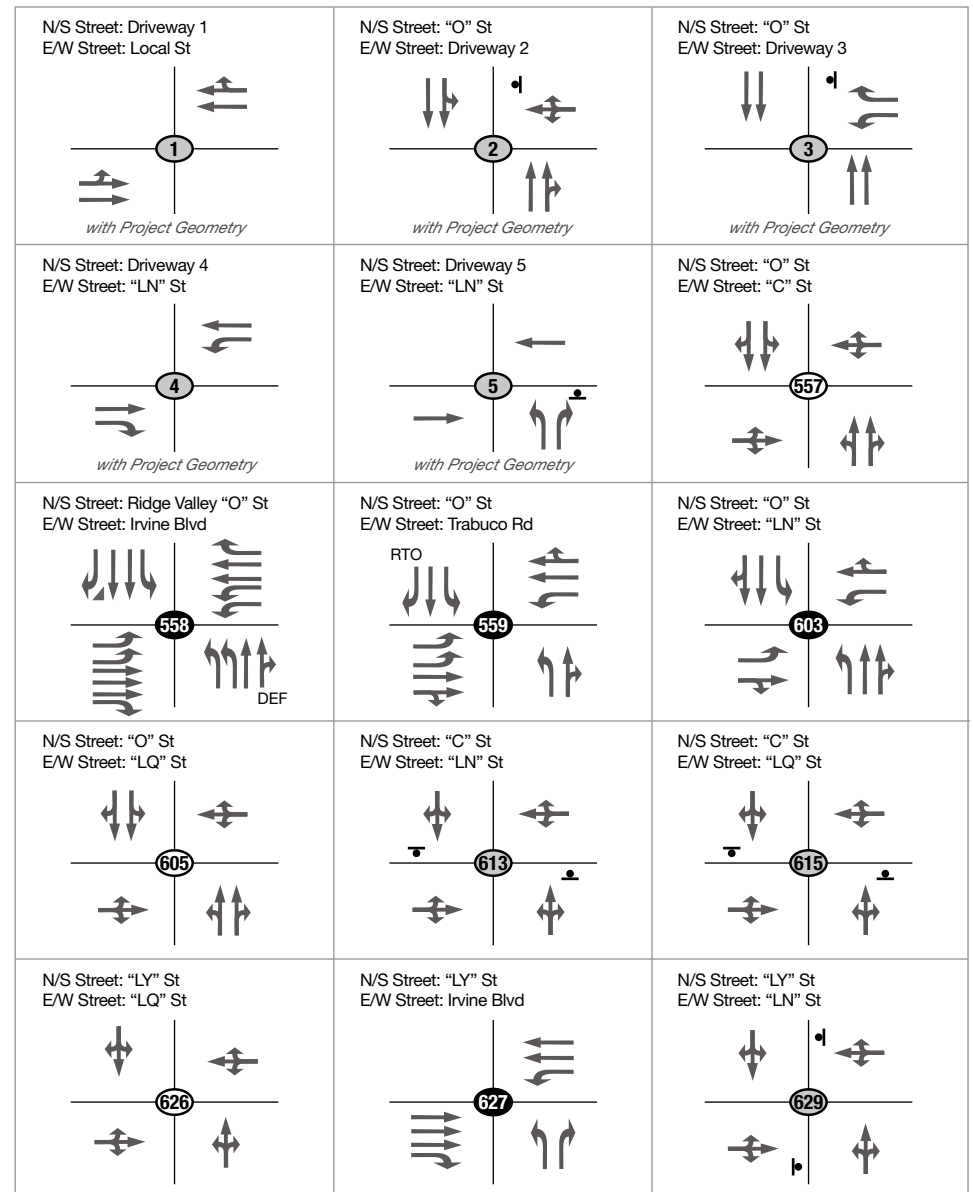
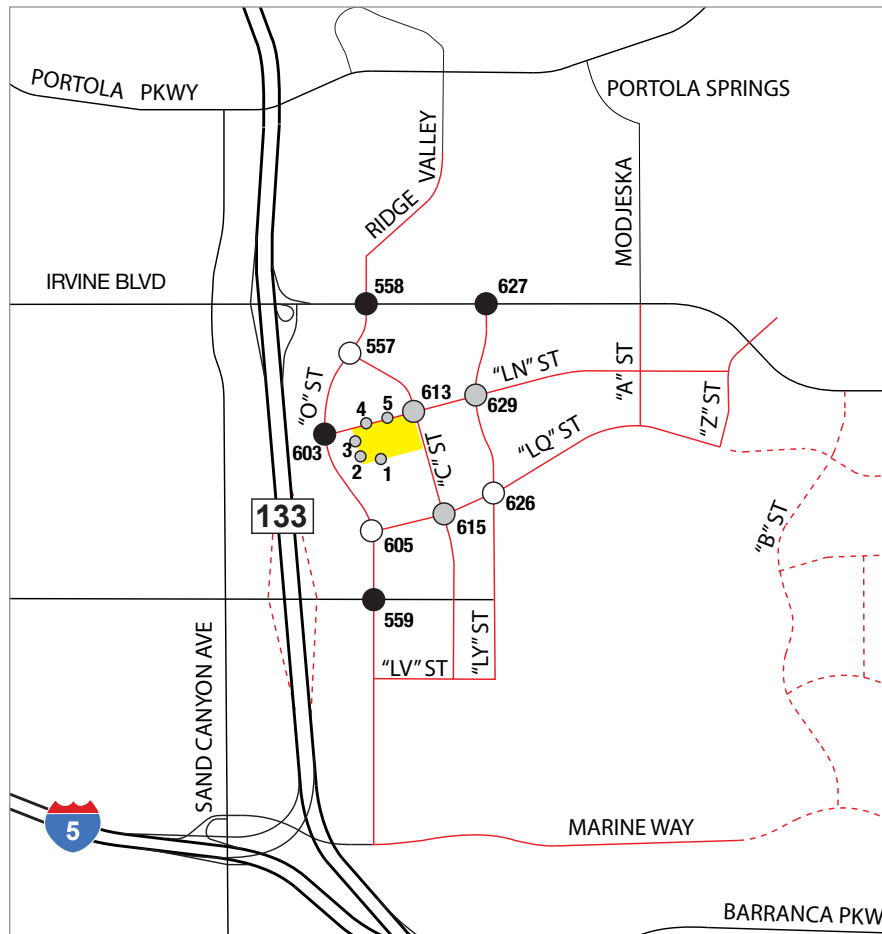


Figure 4.3 Year 2017 Peak Hour Volumes – 2011 Approved Project – No Project



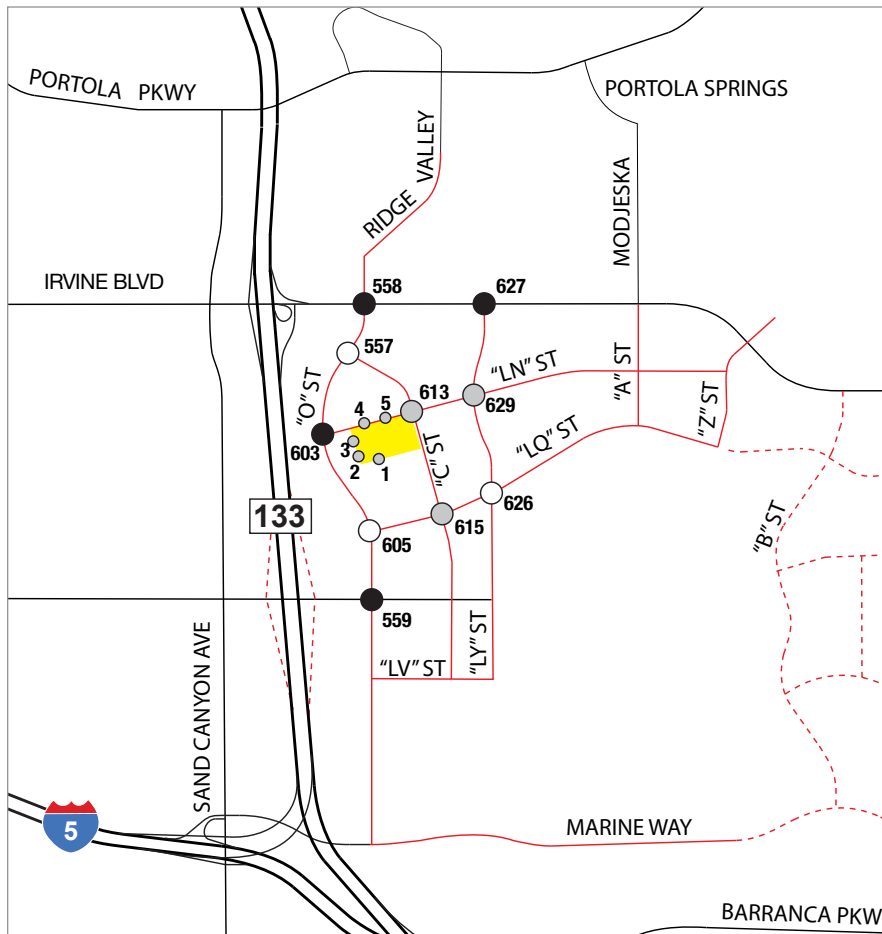
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p><i>Proposed Project Intersection</i></p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>366 241 79 110 61 10 2 110 7 5 11</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>383 559 89 1560 316 230 89 18 1425 64 38</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>5 587 29 281 208 5 25 14 26 383 0</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>395 25 12 14 52 89 12 65 26 22 6 3 25</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>353 55 35 10 47 56 68 77 16 128 92 41</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>55 13 13 7 31 13 19 37 18 81 35</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>64 35 25 15 244 49 27 20 36 23 83 6 3</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>142 54 41 11 103 41 29 23 19 227 65 21</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>0 0 0 0 1525 96 124 0 1185 121 134</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>143 18 25 24 75 66 13 28 10 44 28</p>



Figure 4.4 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 1 – No Project



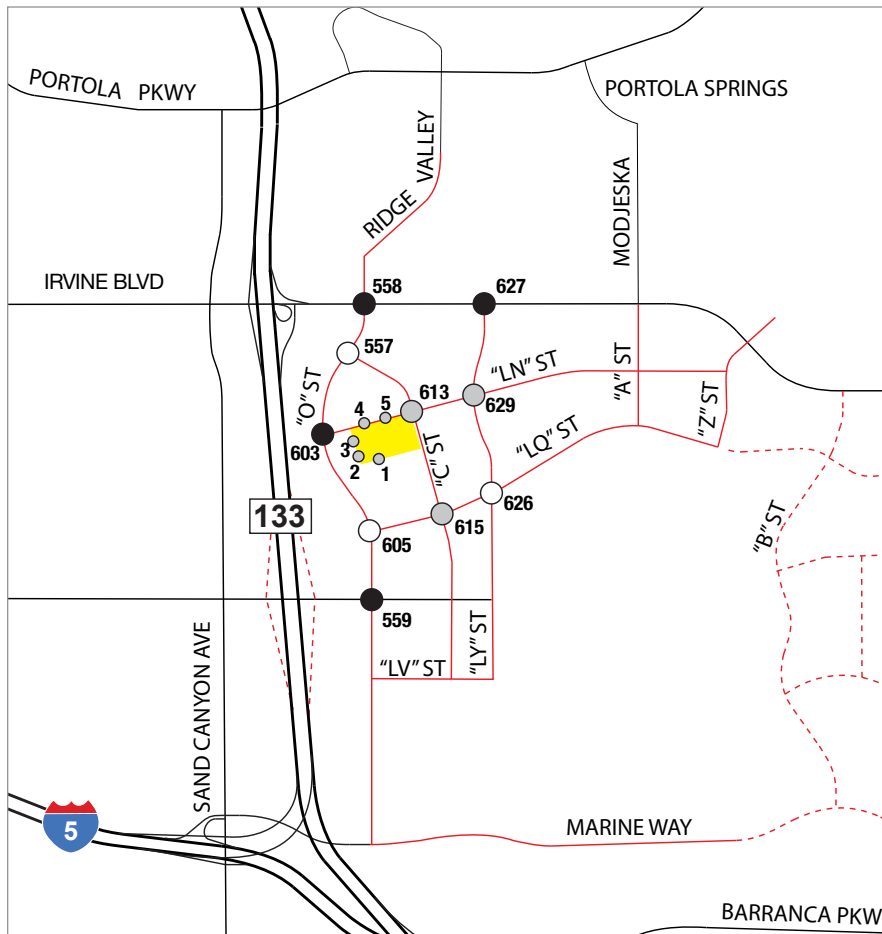
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p>Proposed Project Intersection</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p>Proposed Project Intersection</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>365 209 30 48 64 12 2 108 15 14 10 59</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>373 505 83 1431 232 166 89 111 24 1394 67 37</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>69 814 33 405 192 49 70 50 39 466 5</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>441 6 8 11 19 146 28 87 16 72 15 5 6</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>595 41 54 27 95 167 102 39 55 25 31 6</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>18 5 8 21 113 41 25 15 22 53 13 6 10</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>41 39 24 15 289 35 18 15 20 105 10 39 28</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>95 55 36 11 275 54 3 10 7 123 37 6</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>0 0 0 1491 63 80 86 0 1341 81 0</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>100 25 20 12 111 50 8 11 10 66 39 8</p>



Figure 4.5 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 2 – No Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p>Proposed Project Intersection</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p>Proposed Project Intersection</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>Turning Movement Volumes: 318, 211, 53, 59, 65, 11, 3, 100, 12, 10, 16, 57, 16</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>Turning Movement Volumes: 366, 509, 82, 1431, 221, 166, 89, 115, 25, 1386, 65, 37, 41</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>Turning Movement Volumes: 70, 823, 313, 292, 48, 77, 41, 44, 27, 458, 5, 4</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>Turning Movement Volumes: 385, 6, 11, 12, 22, 151, 24, 74, 14, 16, 70, 6</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>Turning Movement Volumes: 591, 33, 41, 24, 100, 188, 49, 95, 5, 23, 35, 42, 109</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>Turning Movement Volumes: 40, 9, 12, 23, 117, 56, 23, 32, 18, 47, 18</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>Turning Movement Volumes: 91, 33, 31, 20, 231, 69, 33, 25, 35, 26, 80, 7, 33</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>Turning Movement Volumes: 105, 56, 36, 15, 249, 55, 9, 7, 8, 109, 37, 14</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>Turning Movement Volumes: 0, 0, 0, 0, 1333, 88, 87, 0, 78, 67, 1490</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>Turning Movement Volumes: 111, 32, 22, 16, 122, 47, 7, 12, 37, 11, 64, 12</p>



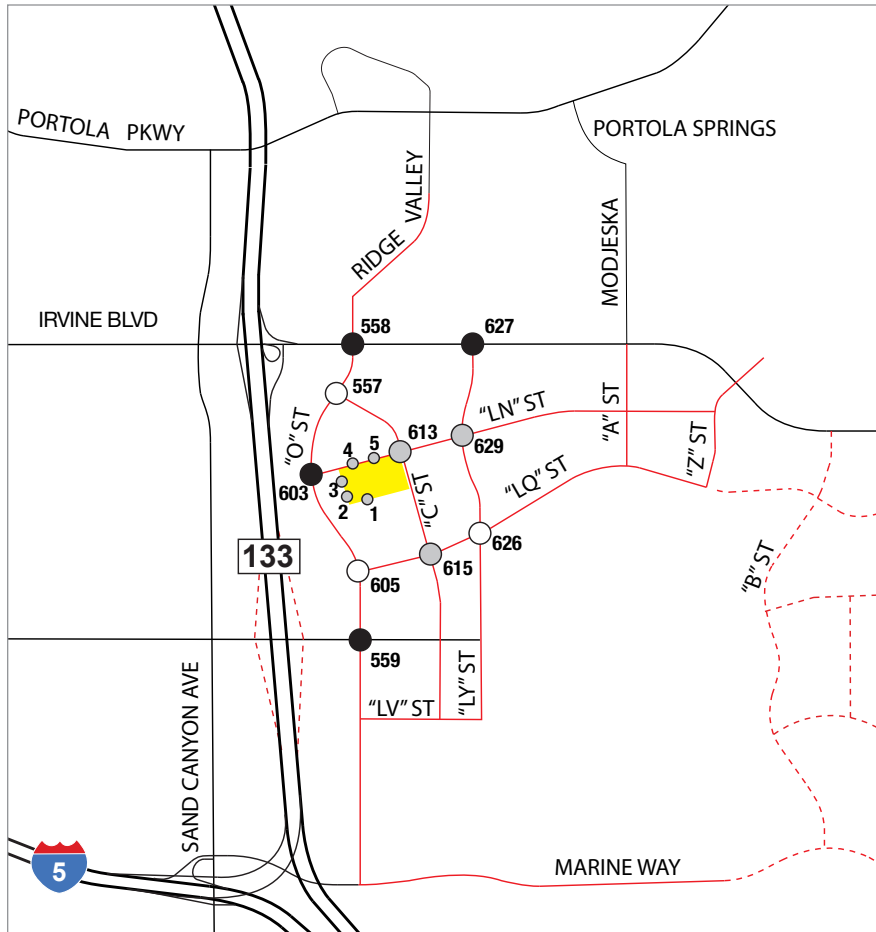
4.2 YEAR 2030

The intersection geometry control for year 2030 for all three alternatives is shown in Figure 4.6. Year 2030 (2011 Approved Project) forecast intersection volumes are shown in Figure 4.7. Year 2030 (2012 Modified Project Option 1) and year 2030 (2012 Modified Project Option 2) forecast intersection volumes are shown in Figures 4.8 and 4.9. A summary of the level of service analysis results for the year 2030 no project condition for all three scenarios is included in Table 4-2. All intersections are forecast to operate at acceptable levels of service.

Table 4-2 Year 2030 Peak Hour Intersection LOS – No Project

Intersection		Control	2011 Approved Project		2012 Modified Project Option 1		2012 Modified Project Option 2	
			V/C	LOS	V/C	LOS	V/C	LOS
557	"O" St & "C" St	R	0.37	A	0.38	A	0.38	A
558	Ridge Valley/"O" St & Irvine Blvd	S	0.69	B	0.63	B	0.63	B
559	"O" St & Trabuco Rd	S	0.67	B	0.84	D	0.83	D
603	"O" St & "LN" St	S	0.33	A	0.38	A	0.37	A
605	"O" St & "LQ" St	R	0.56	A	0.62	B	0.62	B
613	"C" St & "LN" St	U	0.20	A	0.24	A	0.26	A
615	"C" St & "LQ" St	U	0.31	A	0.39	A	0.38	A
626	"LY" St & "LQ" St	R	0.49	A	0.56	A	0.56	A
627	"LY" St & Irvine Blvd	S	0.58	A	0.54	A	0.54	A
629	"LY" St & "LN" St	U	0.27	A	0.33	A	0.33	A

Figure 4.6 Year 2030 & Post 2030 Intersection Geometry and Control



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

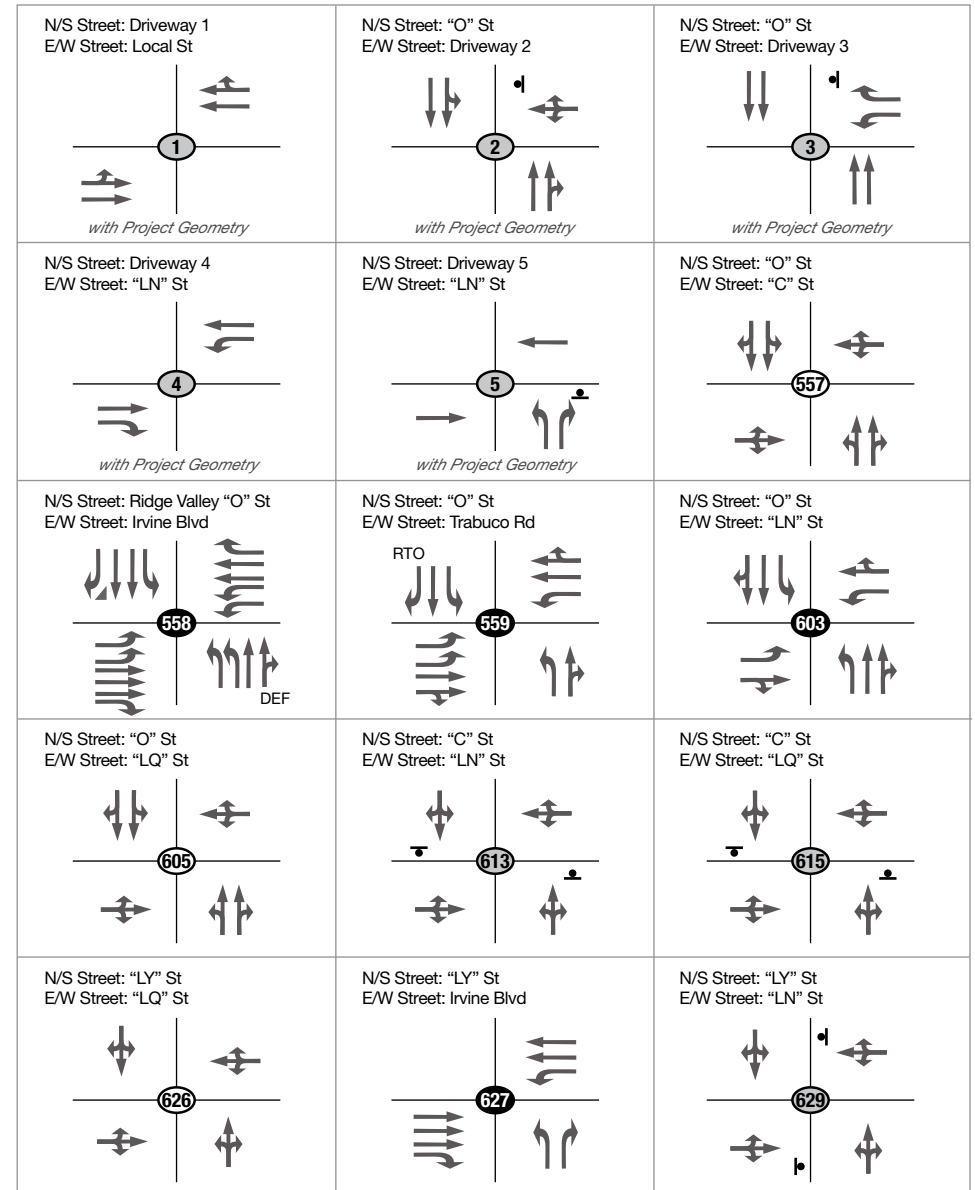
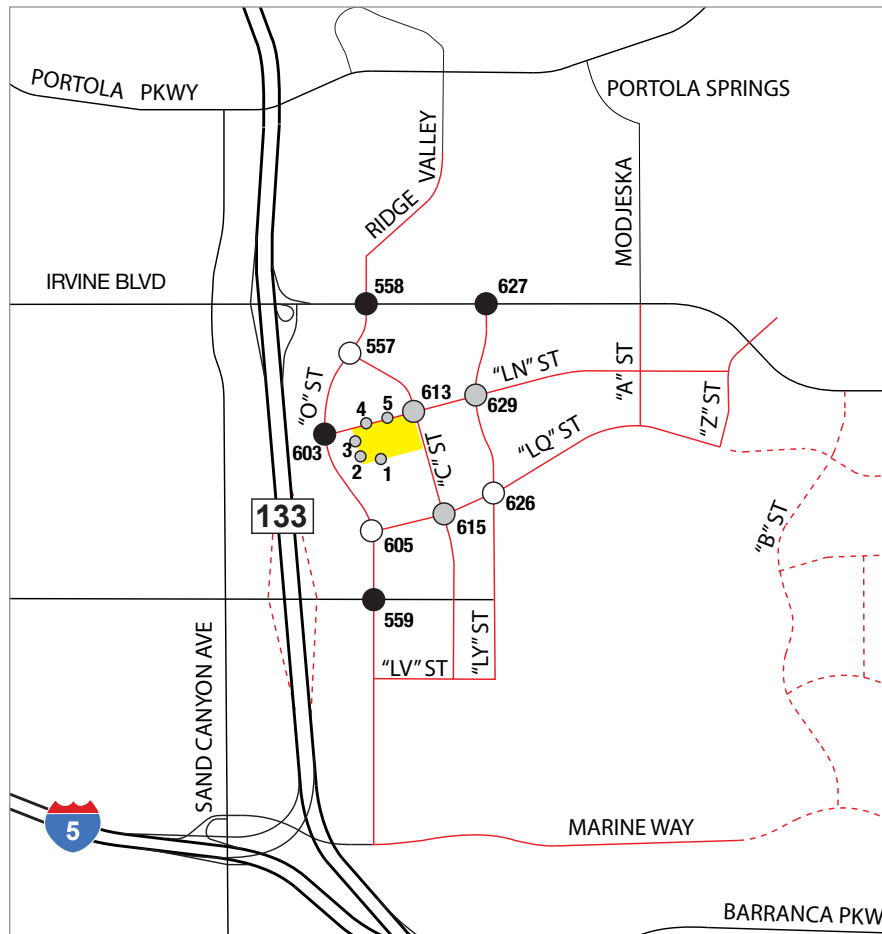


Figure 4.7 Year 2030 Peak Hour Volumes – 2011 Approved Project – No Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

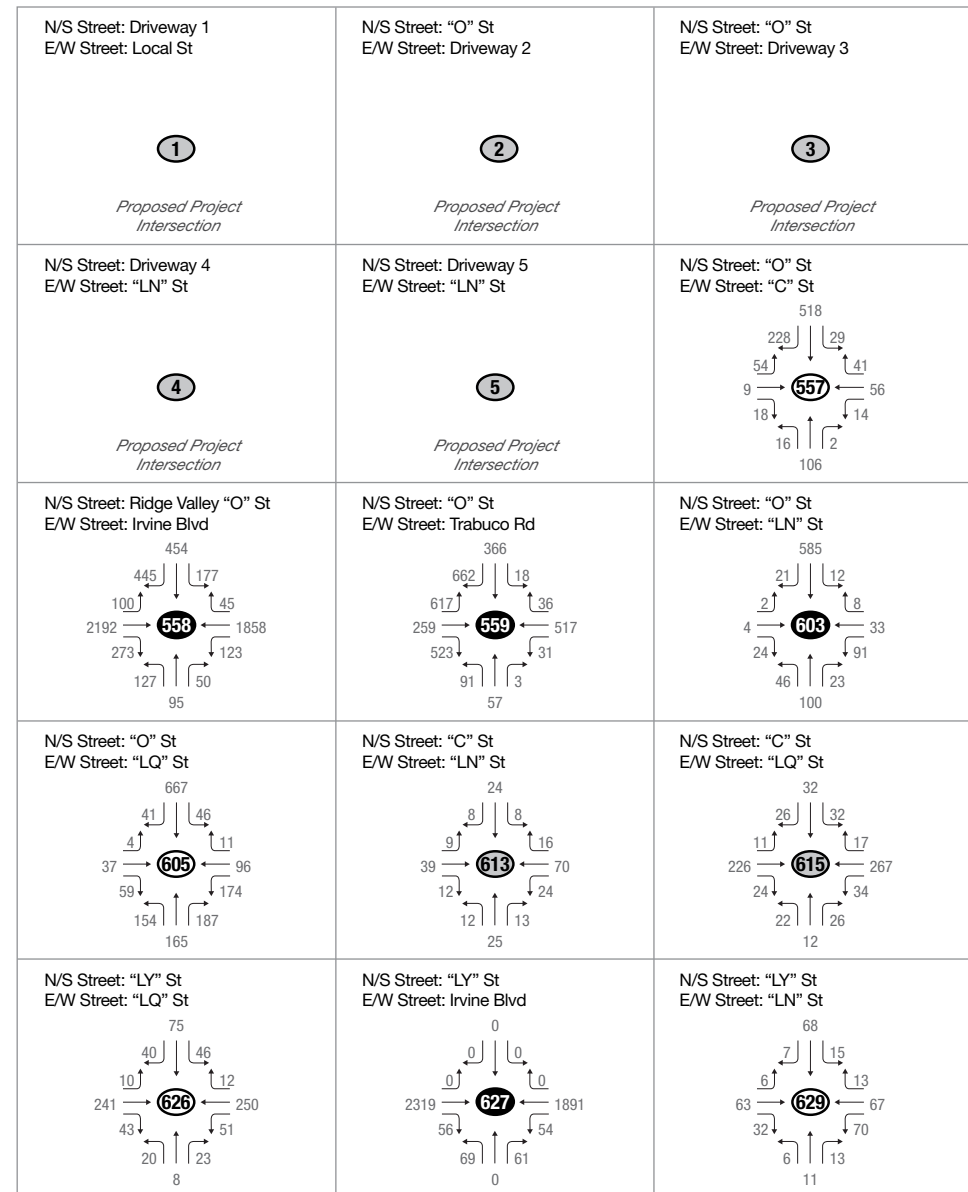
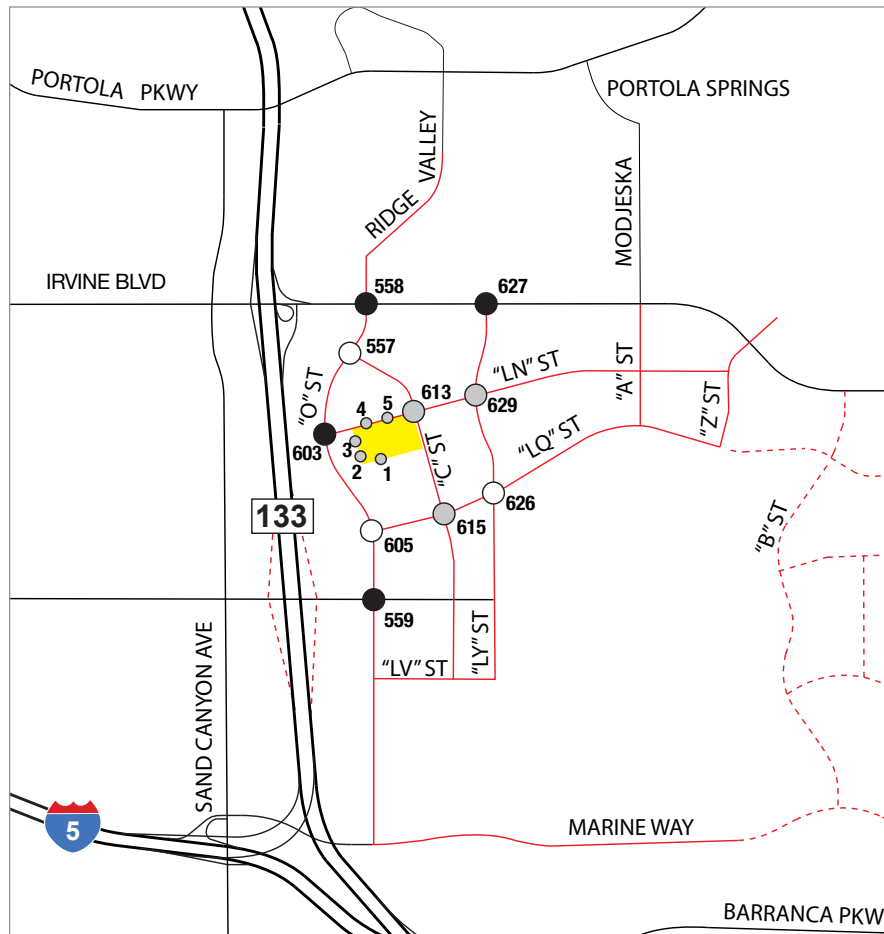


Figure 4.8 Year 2030 Peak Hour Volumes – 2012 Modified Project Options 1 – No Project



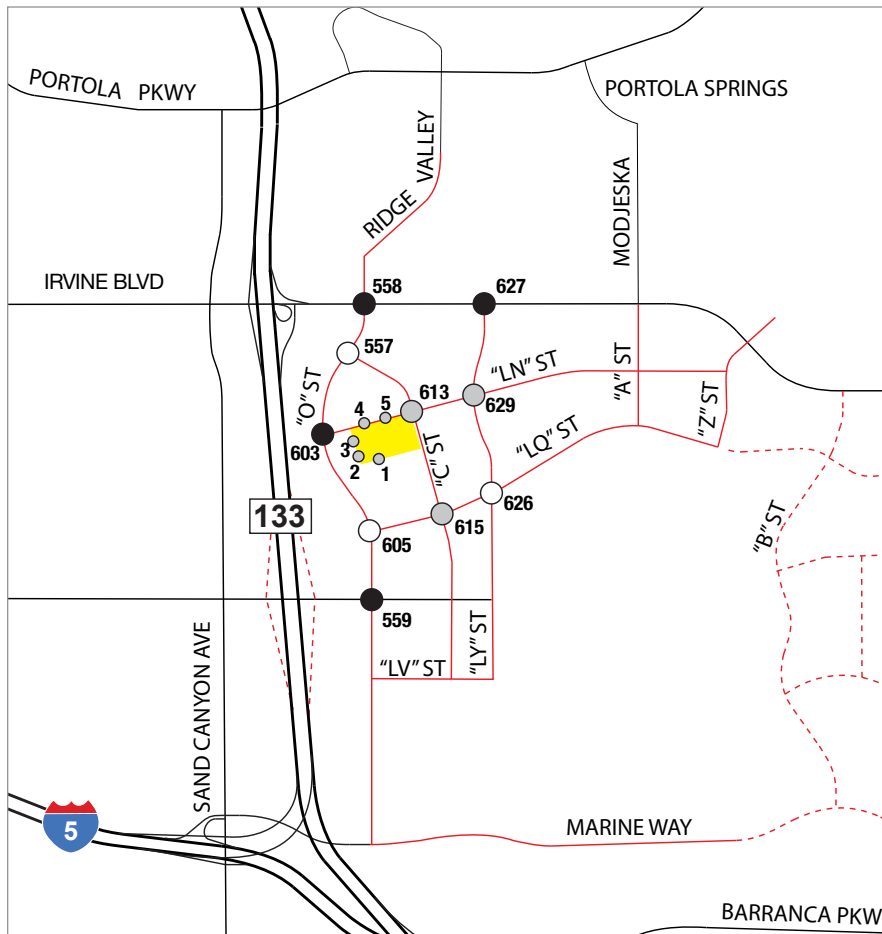
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p><i>Proposed Project Intersection</i></p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>503 178 24 43 34 11 26 66 20 36 5 163</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>436 390 216 81 63 1918 2001 188 146 119 65 115</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>346 905 18 28 634 239 556 540 24 150 3 68</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>607 8 11 7 12 14 135 79 18 35 160</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>833 33 60 3 35 19 88 27 259 59 120 202</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>21 4 6 22 38 104 16 63 12 16 22</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>49 44 37 11 19 174 364 26 44 22 18 10</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>101 51 48 8 14 191 375 42 77 22 21 8</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>0 0 0 0 2112 2098 49 61 62 58 0</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>79 14 17 6 15 62 137 33 88 9 11 9</p>



Figure 4.9 Year 2030 Peak Hour Volumes – 2012 Modified Project Options 2 – No Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p>Proposed Project Intersection</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p>Proposed Project Intersection</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>Turning Movement Volumes: 478, 182, 36, 42, 35, 16, 23, 33, 8, 20, 66, 163</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>Turning Movement Volumes: 432, 393, 219, 82, 63, 1925, 185, 119, 116, 142, 1988</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>Turning Movement Volumes: 337, 901, 27, 524, 22, 369, 565, 530, 144, 4, 53</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>Turning Movement Volumes: 568, 8, 10, 7, 13, 15, 78, 18, 35, 143, 159</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>Turning Movement Volumes: 819, 29, 50, 3, 27, 17, 85, 31, 270, 66, 113, 200</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>Turning Movement Volumes: 33, 8, 9, 8, 23, 44, 107, 18, 49, 15, 17, 29</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>Turning Movement Volumes: 73, 30, 37, 9, 23, 149, 33, 84, 28, 35, 17</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>Turning Movement Volumes: 108, 50, 51, 8, 14, 187, 46, 86, 21, 21, 8</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>Turning Movement Volumes: 0, 0, 0, 0, 2122, 49, 61, 62, 58, 0</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>Turning Movement Volumes: 83, 13, 16, 6, 14, 62, 34, 9, 12, 10</p>



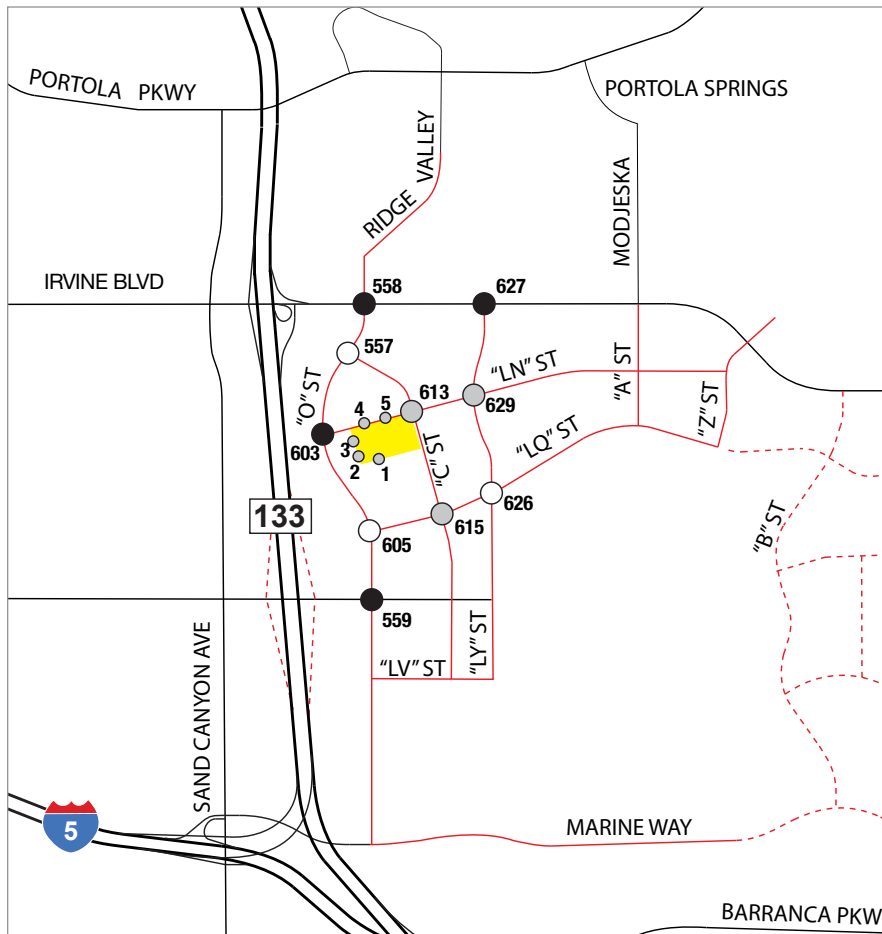
4.2.1 Post-2030

The intersection geometry control for Post-2030 for all scenarios is shown in Figure 4.6. Post-2030 (2011 Approved Project) forecast no project intersection volumes are shown in Figure 4.10. Post-2030 (2012 Modified Project Option 1) and Post-2030 (2012 Modified Project Option 2) forecast no project intersection volumes are shown in Figures 4.11 and 4.12. A summary of the level of service analysis results for the Post-2030 no project condition for all three scenarios is included in Table 4-3. All intersections are forecast to operate at acceptable levels of service.

Table 4-3 Post-2030 Peak Hour Intersection LOS – No Project

Intersection		Control	2011 Approved Project		2012 Modified Project Option 1		2012 Modified Project Option 2	
			V/C	LOS	V/C	LOS	V/C	LOS
557	"O" St & "C" St	R	0.37	A	0.38	A	0.38	A
558	Ridge Valley/"O" St & Irvine Blvd	S	0.68	B	0.63	B	0.63	B
559	"O" St & Trabuco Rd	S	0.63	B	0.81	D	0.81	D
603	"O" St & "LN" St	S	0.32	A	0.36	A	0.36	A
605	"O" St & "LQ" St	R	0.54	A	0.65	B	0.65	B
613	"C" St & "LN" St	U	0.21	A	0.23	A	0.25	A
615	"C" St & "LQ" St	U	0.31	A	0.37	A	0.37	A
626	"LY" St & "LQ" St	R	0.48	A	0.54	A	0.54	A
627	"LY" St & Irvine Blvd	S	0.57	A	0.52	A	0.53	A
629	"LY" St & "LN" St	U	0.26	A	0.30	A	0.30	A

Figure 4.10 Post 2030 Peak Hour Volumes – 2011 Approved Project – No Project



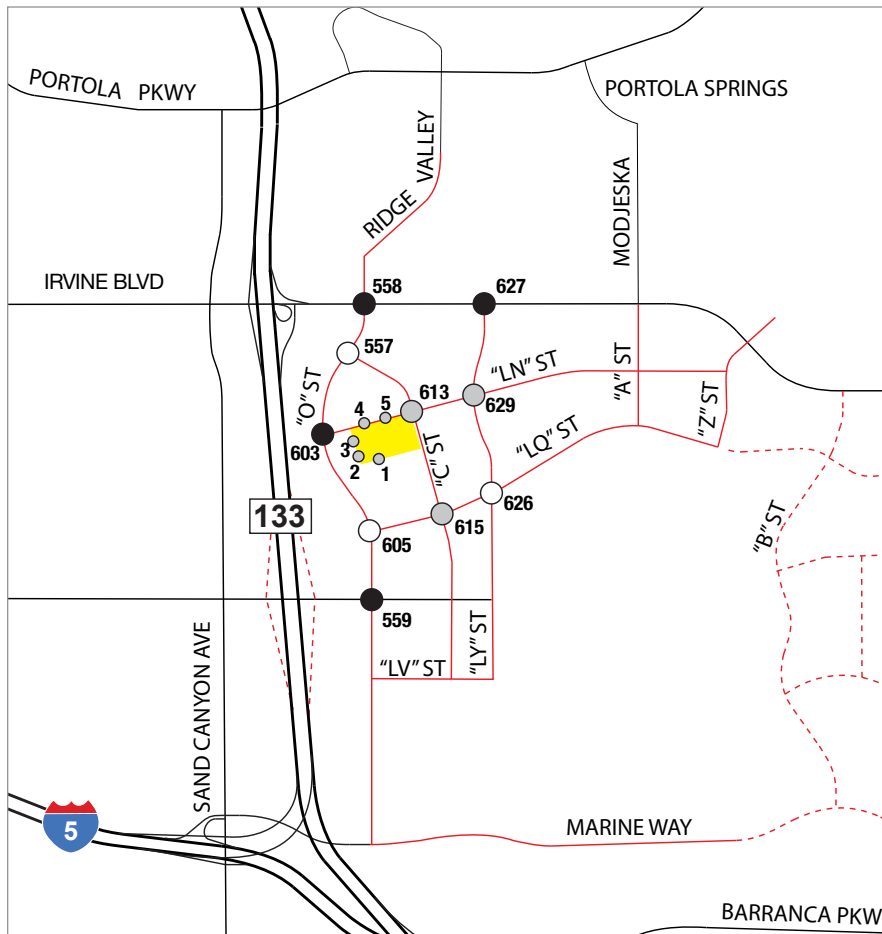
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p>Proposed Project Intersection</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p>Proposed Project Intersection</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p>Proposed Project Intersection</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>Turning Movement Volumes: 489 (N), 225 (S), 29 (E), 55 (W), 57 (SE), 9 (SW), 16 (NW), 14 (NE), 2 (S), 61 (E), 118 (W)</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>Turning Movement Volumes: 484 (N), 630 (S), 200 (E), 43 (W), 135 (SE), 2166 (SW), 255 (NW), 137 (NE), 112 (S), 1623 (E), 81 (W)</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>Turning Movement Volumes: 368 (N), 609 (S), 17 (E), 36 (W), 588 (SE), 241 (SW), 542 (NW), 89 (NE), 59 (S), 496 (E), 33 (W)</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>Turning Movement Volumes: 556 (N), 22 (S), 11 (E), 8 (W), 2 (SE), 4 (SW), 24 (NW), 45 (NE), 100 (S), 34 (E), 100 (W)</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>Turning Movement Volumes: 632 (N), 42 (S), 48 (E), 13 (W), 4 (SE), 40 (SW), 55 (NW), 150 (NE), 164 (S), 100 (E), 158 (W)</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>Turning Movement Volumes: 28 (N), 10 (S), 12 (E), 20 (W), 8 (SE), 33 (SW), 9 (NW), 13 (NE), 32 (S), 77 (E), 23 (W)</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>Turning Movement Volumes: 32 (N), 27 (S), 31 (E), 17 (W), 11 (SE), 214 (SW), 26 (NW), 22 (NE), 25 (S), 32 (E), 260 (W)</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>Turning Movement Volumes: 69 (N), 38 (S), 45 (E), 12 (W), 10 (SE), 233 (SW), 42 (NW), 20 (NE), 8 (S), 252 (E), 49 (W)</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>Turning Movement Volumes: 0 (N), 0 (S), 0 (E), 0 (W), 0 (SE), 2320 (SW), 61 (NW), 50 (NE), 0 (S), 59 (E), 1630 (W)</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>Turning Movement Volumes: 70 (N), 10 (S), 13 (E), 12 (W), 6 (SE), 63 (SW), 31 (NW), 8 (NE), 11 (S), 59 (E), 72 (W)</p>



Figure 4.11 Post 2030 Peak Hour Volumes – 2012 Modified Project Options 1 – No Project



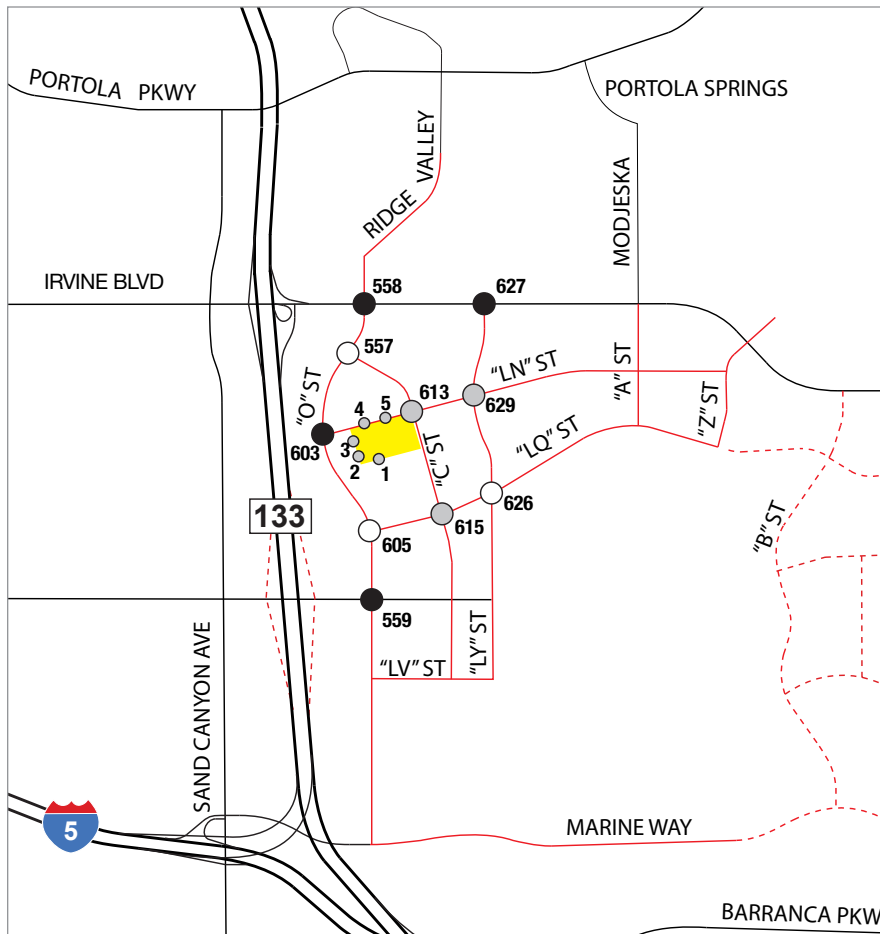
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p><i>Proposed Project Intersection</i></p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>508 184 25 37 46 11 24 32 64 20 5 167</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>487 569 109 1896 194 132 126 231 55 1779 99 53</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>335 851 637 250 569 145 64 17 29 564 26 3</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>605 9 12 79 18 169 9 11 12 106 27</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>825 30 25 70 128 211 32 15 83 251 143</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>22 3 7 36 17 11 30 5 23 76 61 19</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>53 39 11 173 28 20 10 38 19 340 49 19</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>92 49 8 192 40 21 8 50 14 335 70 21</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>0 0 2109 45 49 0 0 0 1840 55 51 0</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>76 11 52 33 12 13 13 12 81 15</p>



Figure 4.12 Post 2030 Peak Hour Volumes – 2012 Modified Project Options 2 – No Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p> <p><i>Proposed Project Intersection</i></p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p> <p><i>Proposed Project Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>469 181 46 43 17 21 31 166 42 69 20 7</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p> <p>475 568 108 1893 188 131 126 233 56 1791 97 54</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>323 863 520 372 567 146 50 25 21 545 23 4</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>563 8 14 8 14 79 19 162 12 125 32 13</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>813 27 4 24 82 141 212 28 14 82 255 128</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>39 10 11 42 17 16 38 11 22 84 34 17</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>66 29 12 160 31 27 21 36 27 294 72 33</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>106 48 8 190 45 21 8 49 13 321 79 21</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p> <p>0 0 0 2108 49 48 0 0 0 1842 61 58 0</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>79 9 6 56 39 8 11 13 14 93 11</p>



5. Proposed Project

A description of the proposed K-8 School project and the expected volume, distribution, and frequency of project-generated trips are presented in this section.

5.1 PROJECT DESCRIPTION

The Irvine Unified School District plans to build a new K-8 school facility at the southeast corner of "O" Street and "LN" Street, east of Sand Canyon Avenue and State Route 133 and west of Alton Parkway. The project site is on a portion of the former Marine Corps Air Station El Toro (MCAS El Toro), in Planning Area 51, Orange County Great Park, of the City of Irvine General Plan. The school is scheduled to open in the year 2016 with a capacity of 1,000 students.

5.2 TRIP GENERATION

The trip generation for the High School No. 5 project has been estimated using rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. The trip generation rates and the forecast trip volumes for the High School land use category (ITE Code 530), are summarized in Table 5-1.

Table 5-1 - ITE Trip Generation for an Elementary School Land Use (Code 520) with a Capacity of 1,000 Students

	Weekday	AM		
		In	Out	Total
Rates	1.29	0.248	0.202	0.45
Trips	1,290	248	202	450

5.3 TRIP DISTRIBUTION

The project trip distribution for each analysis scenario has been developed based on the following assumptions:

- 5% of the project trips are generated by faculty and staff originating outside of the City of Irvine.
- 5% of the project trips are generated by faculty and staff originating within the City of Irvine but outside of the K-8 School attendance area boundary.
- The number of trips originating from each sub-area within the K-8 School attendance area boundary is proportional to the number of residential dwelling units located in that sub-area.

Based on future development of the proposed Great Park Neighborhoods project, there is an estimated 2,717 (in 2011 Approved Project) and 3,146 (in 2012 Modified Project Options 1 and 2) residential housing units that will be located within the K-8 school attendance area. Figure 2 shows the number of housing units in each area in the Interim Year 2017. Figure 3 shows the number of units in each area in the Year 2030 and Post-2030 conditions. The majority of the trips will come from District 1 North, 1 South, and 4. Another K-8 school is proposed in District 5/6, and an elementary school is proposed in District 8. A few trips are



assumed to originate from District 8 to account for students attending the K-8 school upon graduating the proposed elementary school in District 8.

The trip origin and destination assumptions for each of the Interim Year 2017 scenarios are summarized in Table 5-2, and the assumptions for 2030 and Post-2030 are provided in Table 5-3. The appendix contains a memo that details the trip distribution for the study area for Year 2017, 2030 and Post-2030.

Table 5-2 - Interim Year 2017 Trip Distribution Assumptions

Trip Origins/Destinations	2011 AP		2012 MP Option 1		2012 MP Option 2	
	DU	%	DU	%	DU	%
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	53%	1,615	46%	1,873	54%
District 1 South	-	0%	429	12%	171	5%
District 4	1,102	37%	1,102	32%	1,102	32%
Total	2,717	100%	3,146	100%	3,146	100%

Table 5-3 - Year 2030 and Post-2030 Trip Distribution Assumptions

Trip Origins/Destinations	2011 AP		2012 MP Option 1		2012 MP Option 2	
	DU	%	DU	%	DU	10%
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	46%	1,615	46%	1,873	54%
District 1 South	429	12%	429	12%	171	5%
District 4	1,102	32%	1,102	32%	1,102	32%
Total	3,146	100%	3,146	100%	3,146	100%

6. Existing Conditions With Proposed Project

Year 2014 with project (2011 Approved Project) ADT volumes on study area arterials are listed in Table 6-1. Tables 6-2 and 6-3 summarize the study area arterials ADT volumes for 2014 (2012 Modified Project Options 1 and 2), respectively. As seen in Tables 6-1 to 6-3, all study area segments are calculated to operate at LOS C or better under 2014 with project conditions for all three scenarios.

Year 2014 with project (2011 Approved Project) intersection volumes are shown in Figure 6.1. Figures 6.2 and 6.3 show the 2014 - 2012 Modified Project Options 1 and 2, respectively. A summary of the level of service analysis results for the 2014 with project condition is included in Table 6-4. Table 6-5 includes a summary of the 2014 (2012 Modified Project Option 1) with project, and Table 6-6 includes the 2014 (2012 Modified Project Option 1) with project analysis summary results. As seen in Tables 6-4 to 6-6, all study area intersections are forecast to operate at LOS D or better under 2014 with project conditions.

Table 6-1 Year 2014 (2011 Approved Project) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2014 NP ADT			2014 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	23,063	0.430	A	23,063	0.430	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	28,245	0.390	A	28,275	0.390	A
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	18,961	0.350	A	18,991	0.350	A
4	Irvine Blvd	East of Ridge Valley	4D	32,000	18,961	0.590	A	18,971	0.590	A
5	Irvine Blvd	West of Modjeska	4D	32,000	18,961	0.590	A	18,991	0.590	A
6	Irvine Blvd	East of "B" St	6D	54,000	18,961	0.350	A	18,991	0.350	A

Table 6-2 Year 2014 (2012 Modified Project Option 1) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2014 NP ADT			2014 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	23,063	0.430	A	23,063	0.430	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	28,245	0.390	A	28,275	0.390	A
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	18,961	0.350	A	18,991	0.350	A
4	Irvine Blvd	East of Ridge Valley	4D	32,000	18,961	0.590	A	18,971	0.590	A
5	Irvine Blvd	West of Modjeska	4D	32,000	18,961	0.590	A	18,991	0.590	A
6	Irvine Blvd	East of "B" St	6D	54,000	18,961	0.350	A	18,991	0.350	A

Table 6-3 Year 2014 (2012 Modified Project Option 2) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2014 NP ADT			2014 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	23,063	0.430	A	23,063	0.430	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	28,245	0.390	A	28,275	0.390	A
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	18,961	0.350	A	18,991	0.350	A
4	Irvine Blvd	East of Ridge Valley	4D	32,000	18,961	0.590	A	18,971	0.590	A
5	Irvine Blvd	West of Modjeska	4D	32,000	18,961	0.590	A	18,991	0.590	A
6	Irvine Blvd	East of "B" St	6D	54,000	18,961	0.350	A	18,991	0.350	A

Table 6-4 Year 2014 Peak Hour Intersection LOS – 2011 Approved Project

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.00	A	0.16	A	0.16	
2	"LM" St & Driveway 2	U	0.00	A	0.09	A	0.09	
3	"LM" St & Driveway 3	U	0.00	A	0.09	A	0.09	
4	Driveway 4 & "LN" St	U	0.00	A	0.13	A	0.13	
5	Driveway 5 & "LN" St	U	0.00	A	0.12	A	0.12	
558	Ridge Valley/"O" St & Irvine Blvd	U	0.00	A	0.36	A	0.36	
627	"LY" St & Irvine Blvd	S	0.00	A	0.32	A	0.32	

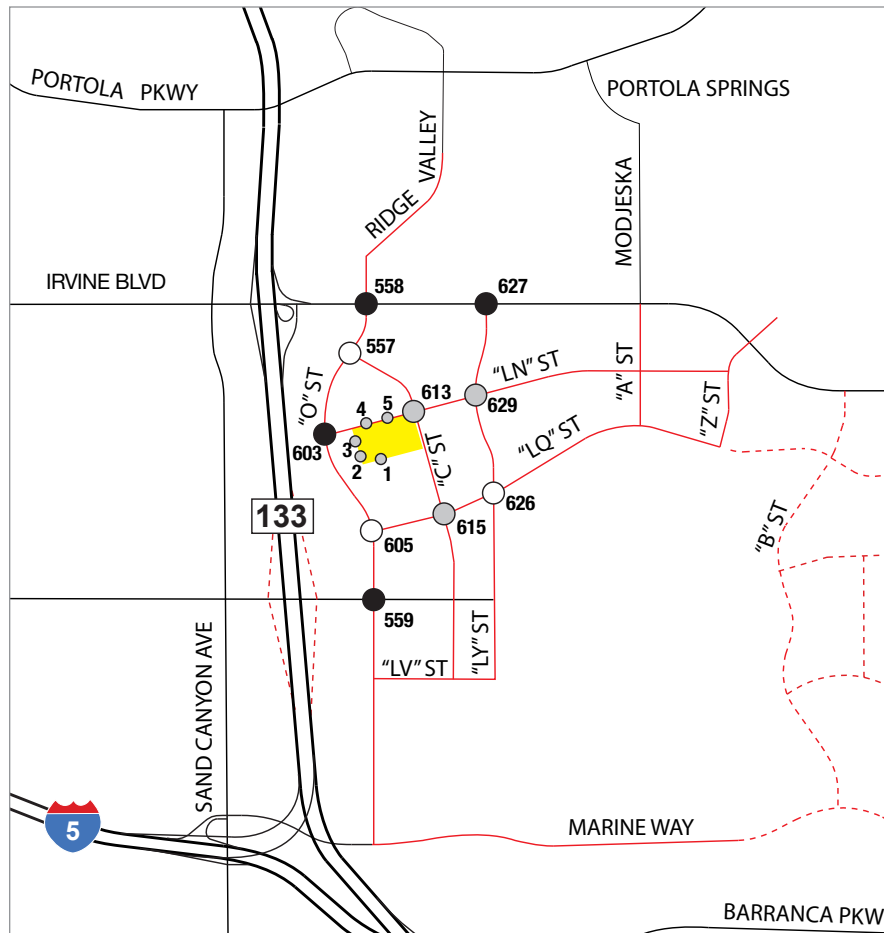
Table 6-5 Year 2014 (2012 Modified Project Option 1) Peak Hour Intersection LOS – With Project

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.00	A	0.16	A	0.16	
2	"LM" St & Driveway 2	U	0.00	A	0.09	A	0.09	
3	"LM" St & Driveway 3	U	0.00	A	0.09	A	0.09	
4	Driveway 4 & "LN" St	U	0.00	A	0.13	A	0.13	
5	Driveway 5 & "LN" St	U	0.00	A	0.12	A	0.12	
558	Ridge Valley/"O" St & Irvine Blvd	U	0.00	A	0.36	A	0.36	
627	"LY" St & Irvine Blvd	S	0.00	A	0.32	A	0.32	

Table 6-6 Year 2014 (2012 Modified Project Option 2) Peak Hour Intersection LOS – With Project

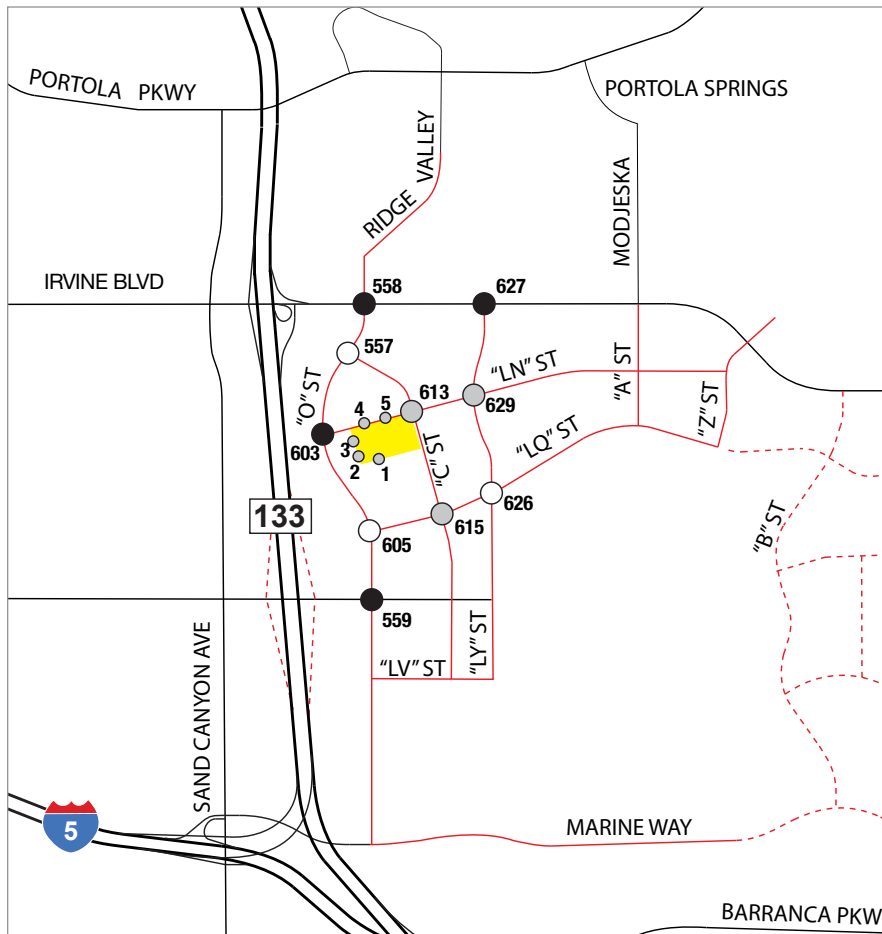
Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.00	A	0.16	A	0.16	
2	"LM" St & Driveway 2	U	0.00	A	0.09	A	0.09	
3	"LM" St & Driveway 3	U	0.00	A	0.09	A	0.09	
4	Driveway 4 & "LN" St	U	0.00	A	0.13	A	0.13	
5	Driveway 5 & "LN" St	U	0.00	A	0.12	A	0.12	
558	Ridge Valley/"O" St & Irvine Blvd	U	0.00	A	0.36	A	0.36	
627	"LY" St & Irvine Blvd	S	0.00	A	0.32	A	0.32	

Figure 6.1 Year 2014 Peak Hour Volumes – 2011 Approved Project – With Project



<p>N/S Street: Driveway 1 E/W Street: Local St</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p style="text-align: center;">557</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p style="text-align: center;">559</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p style="text-align: center;">603</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p style="text-align: center;">605</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p style="text-align: center;">613</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p style="text-align: center;">615</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p style="text-align: center;">626</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p style="text-align: center;">629</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>

Figure 6.2 Year 2014 Peak Hour Volumes – 2012 Modified Project Options 1 – With Project



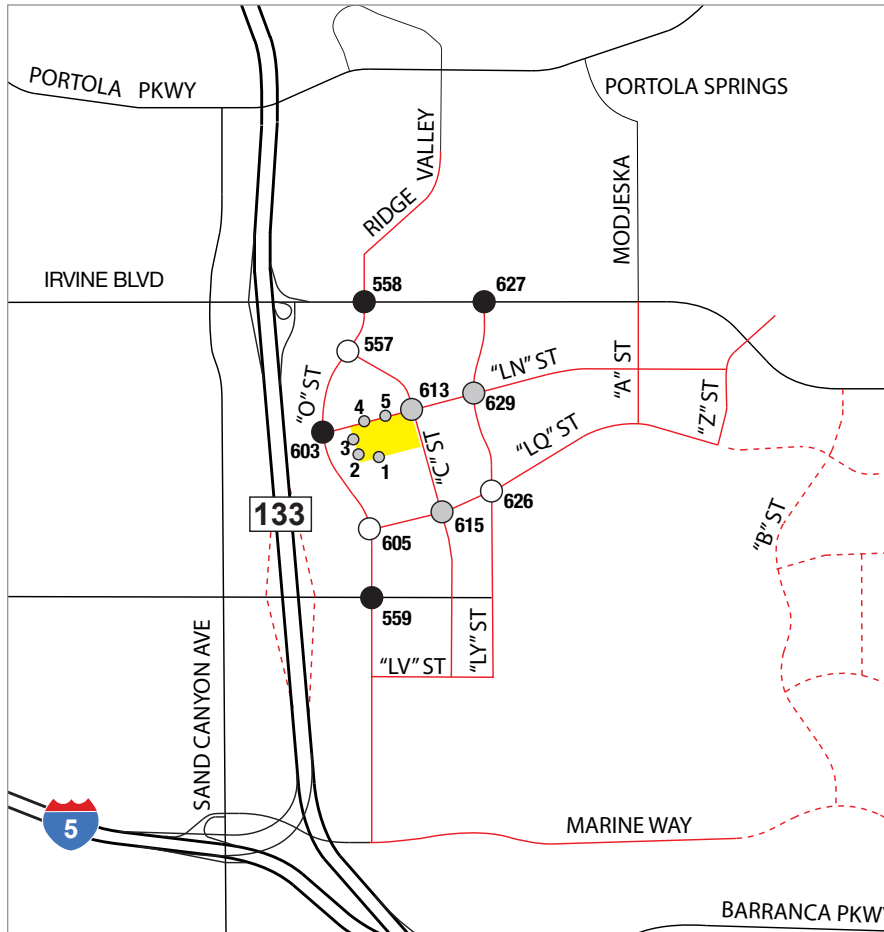
LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

<p>N/S Street: Driveway 1 E/W Street: Local St</p> <p>1</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p> <p>2</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p> <p>3</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p> <p>4</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p> <p>5</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p>557</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p> <p>558</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p>559</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p>603</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p>605</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p>613</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p>615</p> <p>HF/GPN Proposed Future Intersection</p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p>626</p> <p>HF/GPN Proposed Future Intersection</p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p> <p>627</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p>629</p> <p>HF/GPN Proposed Future Intersection</p>



Figure 6.3 Year 2014 Peak Hour Volumes –
2012 Modified Project Options 2 – With Project



<p>N/S Street: Driveway 1 E/W Street: Local St</p>	<p>N/S Street: "O" St E/W Street: Driveway 2</p>	<p>N/S Street: "O" St E/W Street: Driveway 3</p>
<p>N/S Street: Driveway 4 E/W Street: "LN" St</p>	<p>N/S Street: Driveway 5 E/W Street: "LN" St</p>	<p>N/S Street: "O" St E/W Street: "C" St</p> <p style="text-align: center;">557</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: Ridge Valley "O" St E/W Street: Irvine Blvd</p>	<p>N/S Street: "O" St E/W Street: Trabuco Rd</p> <p style="text-align: center;">559</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "O" St E/W Street: "LN" St</p> <p style="text-align: center;">603</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: "O" St E/W Street: "LQ" St</p> <p style="text-align: center;">605</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "C" St E/W Street: "LN" St</p> <p style="text-align: center;">613</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "C" St E/W Street: "LQ" St</p> <p style="text-align: center;">615</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>
<p>N/S Street: "LY" St E/W Street: "LQ" St</p> <p style="text-align: center;">626</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>	<p>N/S Street: "LY" St E/W Street: Irvine Blvd</p>	<p>N/S Street: "LY" St E/W Street: "LN" St</p> <p style="text-align: center;">629</p> <p style="text-align: center;"><i>HF/GPN Proposed Future Intersection</i></p>

7. Future Conditions With Proposed Project

The forecast year 2017, 2030, and post-2030 intersection volumes with project generated trips and the corresponding level of service analysis results are presented in this section.

7.1 PROJECTED TRAFFIC AND LOS

7.1.1 Year 2017

Year 2017 (2011 Approved Project) forecast intersection volumes with project are shown in Figure 7.1. Year 2017 (2012 Modified Project Option 1) and year 2017 (2012 Modified Project Option 2) forecast intersection volumes with project are shown in Figures 7.2 and 7.3. Year 2017 with project ADT volumes on study area arterials are listed in Table 7-1, Table 7-2, and Table 7-3. As seen in Table 7-1, all study area segments are calculated to operate at LOS C or better under year 2017 with project conditions for all three scenarios.

A summary of the level of service intersection analysis results for the 2017 with project (2011 Approved Project) condition is included in Table 7-4. Table 7-5 includes a summary of the 2017 (2012 Modified Project Option 1) with project, and Table 7-6 includes the 2017 (2012 Modified Project Option 2) with project analysis summary results. All intersections are forecast to operate at acceptable levels of service. No project impacts were identified in the Year 2017 for all three scenarios.

Table 7-1 Year 2017 (2011 Approved Project) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2017 NP ADT			2017 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	29,567	0.550	A	29,567	0.550	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	50,378	0.700	B	50,408	0.700	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	31,422	0.580	A	31,452	0.580	A
4	Irvine Blvd	East of Ridge Valley	6D	54,000	27,713	0.510	A	27,723	0.510	A
5	Irvine Blvd	West of Modjeska	6D	54,000	32,452	0.600	A	32,482	0.600	A
6	Irvine Blvd	East of "B" St	6D	54,000	33,791	0.630	B	33,821	0.630	B
7	Trabuco Rd	West of "O" St	4D	32,000	17,720	0.550	A	17,750	0.550	A
8	Trabuco Rd	East of "O" St	4D	32,000	8,654	0.270	A	8,684	0.270	A
9	"O" St	North of Irvine Bl	4U	28,000	12,569	0.450	A	12,599	0.450	A
10	"O" St	South of Irvine Bl	4U	28,000	11,435	0.410	A	11,495	0.410	A
11	"O" St	North of "LN" St	4U	28,000	5,769	0.210	A	5,829	0.210	A
12	"O" St	South of "LN" St	4U	42,000	6,490	0.150	A	6,570	0.160	A
13	"O" St	North of Trabuco Rd	4U	28,000	9,890	0.350	A	9,970	0.360	A
14	"O" St	South of Trabuco Rd	4U	42,000	721	0.020	A	771	0.020	A
15	"LQ" St	West of "C" St	2D	13,000	4,327	0.330	A	4,457	0.340	A
16	"LQ" St	East of "C" St	2D	13,000	4,533	0.350	A	4,753	0.370	A
17	"LQ" St	West of "A" St	2D	13,000	4,224	0.320	A	4,374	0.340	A
18	"LQ" St	East of "A" St	2D	13,000	3,297	0.250	A	3,357	0.260	A
19	"LN" St	West of "C" St	2D	13,000	1,339	0.100	A	2,019	0.160	A
20	"LN" St	East of "C" St	2D	13,000	1,545	0.120	A	1,845	0.140	A
21	"LN" St	West of "A" St	2D	13,000	1,545	0.120	A	1,715	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,545	0.120	A	1,605	0.120	A

#	Street Name	Limits	# Lanes	Capacity	2017 NP ADT			2017 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
23	"VV" St	West of "LM" St	2D	13,000	927	0.070	A	957	0.070	A
24	"VV" St	East of "LM" St	2D	13,000	515	0.040	A	945	0.070	A
25	"LY" St	South of Irvine Bl	2D	13,000	5,563	0.430	A	5,573	0.430	A
26	"LY" St	North of "LQ" St	2D	13,000	3,503	0.270	A	3,513	0.270	A
27	"LY" St	South of "LQ" St	2D	13,000	3,606	0.280	A	3,646	0.280	A
28	"LM" St	South of "LN" St	2D	13,000	824	0.060	A	974	0.070	A

Table 7-2 Year 2017 (2012 Modified Project Option 1) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2017 NP ADT			2017 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	28,125	0.520	A	28,125	0.520	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	51,099	0.710	C	51,129	0.710	C
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	34,203	0.630	B	34,233	0.630	B
4	Irvine Blvd	East of Ridge Valley	6D	54,000	30,495	0.560	A	30,505	0.560	A
5	Irvine Blvd	West of Modjeska	6D	54,000	35,337	0.650	B	35,367	0.650	B
6	Irvine Blvd	East of "B" St	6D	54,000	37,088	0.690	B	37,118	0.690	B
7	Trabuco Rd	West of "O" St	4D	32,000	23,695	0.740	C	23,725	0.740	C
8	Trabuco Rd	East of "O" St	4D	32,000	9,581	0.300	A	9,621	0.300	A
9	"O" St	North of Irvine Bl	4U	28,000	12,466	0.450	A	12,496	0.450	A
10	"O" St	South of Irvine Bl	4U	28,000	9,581	0.340	A	9,641	0.340	A
11	"O" St	North of "LN" St	4U	28,000	6,593	0.240	A	6,653	0.240	A
12	"O" St	South of "LN" St	4U	42,000	8,860	0.210	A	8,960	0.210	A
13	"O" St	North of Trabuco Rd	4U	28,000	15,659	0.560	A	15,759	0.560	A
14	"O" St	South of Trabuco Rd	4U	42,000	4,430	0.110	A	4,510	0.110	A
15	"LQ" St	West of "C" St	2D	13,000	4,636	0.360	A	4,786	0.370	A
16	"LQ" St	East of "C" St	2D	13,000	5,254	0.400	A	5,484	0.420	A
17	"LQ" St	West of "A" St	2D	13,000	4,636	0.360	A	4,766	0.370	A
18	"LQ" St	East of "A" St	2D	13,000	3,709	0.290	A	3,749	0.290	A
19	"LN" St	West of "C" St	2D	13,000	1,957	0.150	A	2,617	0.200	A
20	"LN" St	East of "C" St	2D	13,000	2,370	0.180	A	2,650	0.200	A
21	"LN" St	West of "A" St	2D	13,000	1,442	0.110	A	1,592	0.120	A
22	"LN" St	East of "A" St	2D	13,000	1,442	0.110	A	1,482	0.110	A
23	"VV" St	West of "LM" St	2D	13,000	1,339	0.100	A	1,389	0.110	A
24	"VV" St	East of "LM" St	2D	13,000	618	0.050	A	1,078	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	3,400	0.260	A	3,410	0.260	A
26	"LY" St	North of "LQ" St	2D	13,000	2,163	0.170	A	2,173	0.170	A
27	"LY" St	South of "LQ" St	2D	13,000	2,163	0.170	A	2,263	0.170	A
28	"LM" St	South of "LN" St	2D	13,000	1,133	0.090	A	1,283	0.100	A

Table 7-3 Year 2017 (2012 Modified Project Option 2) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2017 NP ADT			2017 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	28,228	0.520	A	28,228	0.520	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	50,790	0.710	C	50,820	0.710	C
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	33,997	0.630	B	34,027	0.630	B
4	Irvine Blvd	East of Ridge Valley	6D	54,000	30,392	0.560	A	30,402	0.560	A
5	Irvine Blvd	West of Modjeska	6D	54,000	35,337	0.650	B	35,367	0.650	B
6	Irvine Blvd	East of "B" St	6D	54,000	37,088	0.690	B	37,118	0.690	B
7	Trabuco Rd	West of "O" St	4D	32,000	23,489	0.730	C	23,519	0.730	C
8	Trabuco Rd	East of "O" St	4D	32,000	10,508	0.330	A	10,548	0.330	A
9	"O" St	North of Irvine Bl	4U	28,000	12,466	0.450	A	12,496	0.450	A
10	"O" St	South of Irvine Bl	4U	28,000	9,272	0.330	A	9,332	0.330	A
11	"O" St	North of "LN" St	4U	28,000	5,666	0.200	A	5,726	0.200	A
12	"O" St	South of "LN" St	4U	42,000	7,830	0.190	A	7,920	0.190	A
13	"O" St	North of Trabuco Rd	4U	28,000	14,423	0.520	A	14,513	0.520	A
14	"O" St	South of Trabuco Rd	4U	42,000	4,430	0.110	A	4,490	0.110	A
15	"LQ" St	West of "C" St	2D	13,000	3,503	0.270	A	3,653	0.280	A
16	"LQ" St	East of "C" St	2D	13,000	4,945	0.380	A	5,165	0.400	A
17	"LQ" St	West of "A" St	2D	13,000	4,533	0.350	A	4,663	0.360	A
18	"LQ" St	East of "A" St	2D	13,000	3,503	0.270	A	3,543	0.270	A
19	"LN" St	West of "C" St	2D	13,000	2,060	0.160	A	2,740	0.210	A
20	"LN" St	East of "C" St	2D	13,000	2,473	0.190	A	2,773	0.210	A
21	"LN" St	West of "A" St	2D	13,000	1,442	0.110	A	1,592	0.120	A
22	"LN" St	East of "A" St	2D	13,000	1,442	0.110	A	1,482	0.110	A
23	"VV" St	West of "LM" St	2D	13,000	1,339	0.100	A	1,369	0.110	A
24	"VV" St	East of "LM" St	2D	13,000	515	0.040	A	975	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	3,606	0.280	A	3,616	0.280	A
26	"LY" St	North of "LQ" St	2D	13,000	2,266	0.170	A	2,296	0.180	A
27	"LY" St	South of "LQ" St	2D	13,000	2,370	0.180	A	2,460	0.190	A
28	"LM" St	South of "LN" St	2D	13,000	1,133	0.090	A	1,283	0.100	A

Table 7-4 Year 2017 (2011 Approved Project) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.07	A	0.18	A	0.11	
2	"LM" St & Driveway 2	U	0.07	A	0.12	A	0.05	
3	"LM" St & Driveway 3	U	0.07	A	0.11	A	0.04	
4	Driveway 4 & "LN" St	U	0.16	A	0.22	A	0.06	
5	Driveway 5 & "LN" St	U	0.15	A	0.22	A	0.07	
557	"O" St & "C" St	R	0.37	A	0.38	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.79	C	0.80	C	0.01	
559	"O" St & Trabuco Rd	S	0.55	A	0.56	A	0.01	
603	"O" St & "LN" St	S	0.26	A	0.27	A	0.01	
605	"O" St & "LQ" St	R	0.40	A	0.41	A	0.01	
613	"C" St & "LN" St	U	0.25	A	0.32	A	0.07	
615	"C" St & "LQ" St	U	0.42	A	0.46	A	0.04	
626	"LY" St & "LQ" St	R	0.51	A	0.54	A	0.03	
627	"LY" St & Irvine Blvd	S	0.24	A	0.24	A	0.00	
629	"LY" St & "LN" St	U	0.33	A	0.36	A	0.03	

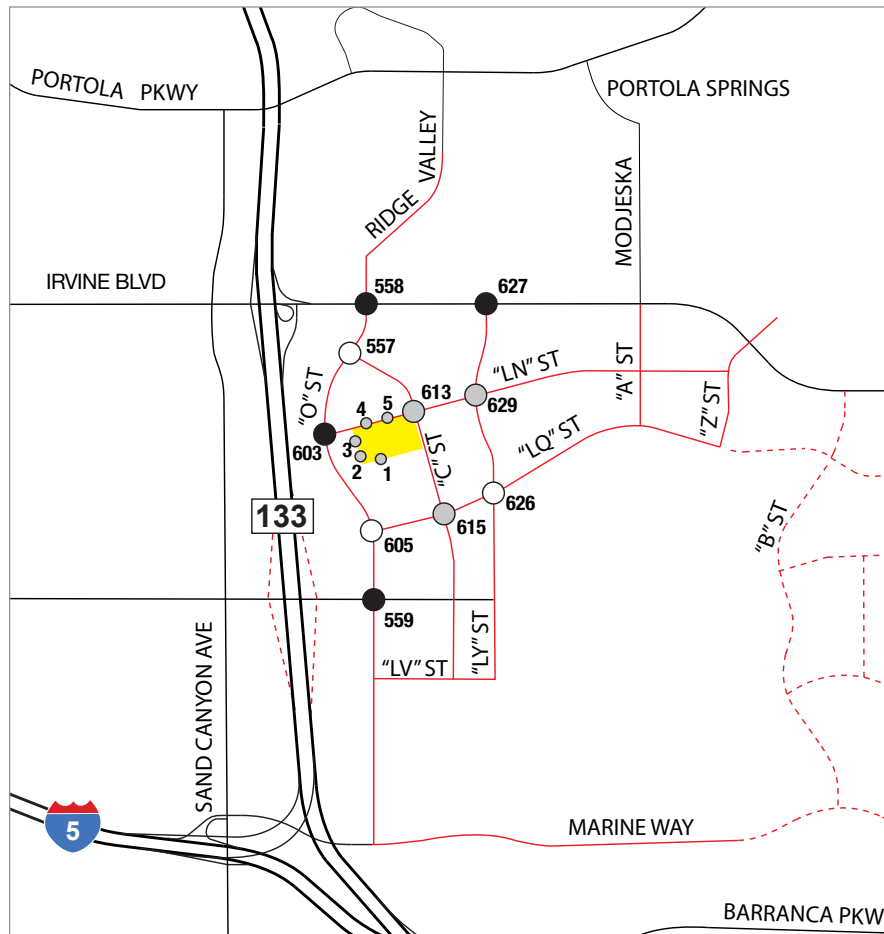
Table 7-5 Year 2017 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.07	A	0.19	A	0.12	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	
5	Driveway 5 & "LN" St	U	0.17	A	0.24	A	0.07	
557	"O" St & "C" St	R	0.33	A	0.34	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.64	B	0.65	B	0.01	
559	"O" St & Trabuco Rd	S	0.75	C	0.76	C	0.01	
603	"O" St & "LN" St	S	0.33	A	0.35	A	0.02	
605	"O" St & "LQ" St	R	0.47	A	0.49	A	0.02	
613	"C" St & "LN" St	U	0.25	A	0.31	A	0.06	
615	"C" St & "LQ" St	U	0.43	A	0.48	A	0.05	
626	"LY" St & "LQ" St	R	0.47	A	0.51	A	0.04	
627	"LY" St & Irvine Blvd	S	0.25	A	0.25	A	0.00	
629	"LY" St & "LN" St	U	0.32	A	0.35	A	0.03	

Table 7-6 Year 2017 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.07	A	0.18	A	0.11	
2	"LM" St & Driveway 2	U	0.08	A	0.11	A	0.03	
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	
5	Driveway 5 & "LN" St	U	0.18	A	0.25	A	0.07	
557	"O" St & "C" St	R	0.33	A	0.34	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.64	B	0.65	B	0.01	
559	"O" St & Trabuco Rd	S	0.75	C	0.76	C	0.01	
603	"O" St & "LN" St	S	0.31	A	0.34	A	0.03	
605	"O" St & "LQ" St	R	0.48	A	0.50	A	0.02	
613	"C" St & "LN" St	U	0.29	A	0.35	A	0.06	
615	"C" St & "LQ" St	U	0.45	A	0.50	A	0.05	
626	"LY" St & "LQ" St	R	0.46	A	0.50	A	0.04	
627	"LY" St & Irvine Blvd	S	0.24	A	0.25	A	0.01	
629	"LY" St & "LN" St	U	0.34	A	0.37	A	0.03	

Figure 7.1 Year 2017 Peak Hour Volumes – 2011 Approved Project – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## ↓ Turning Movement Volume

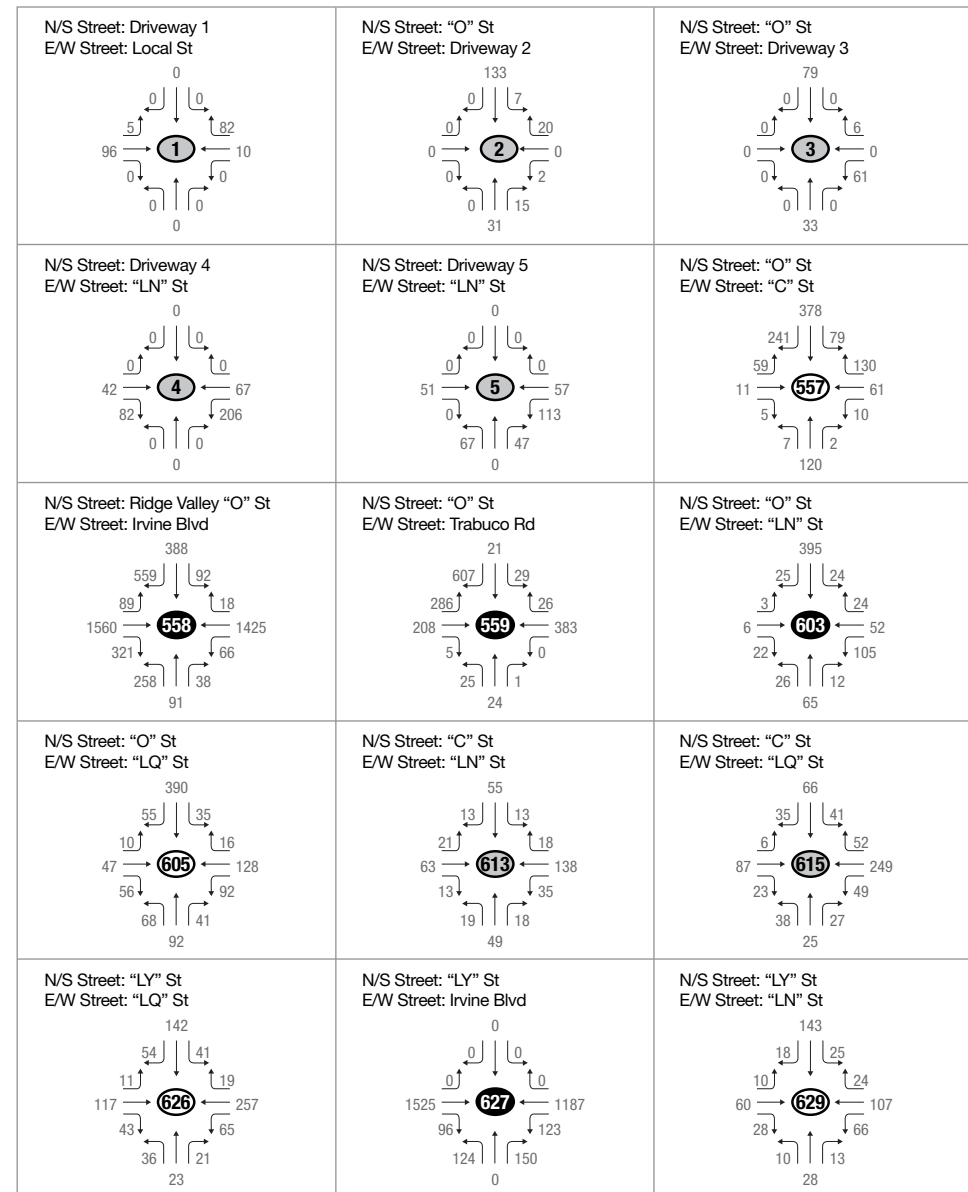
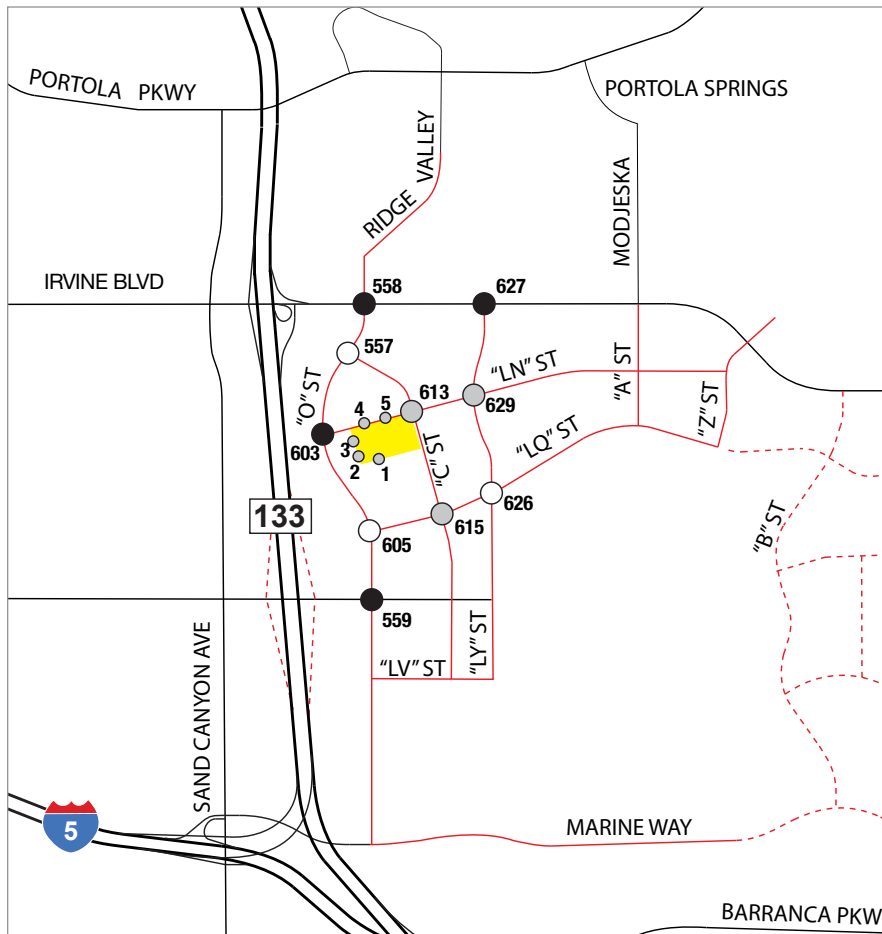


Figure 7.2 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 1 – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

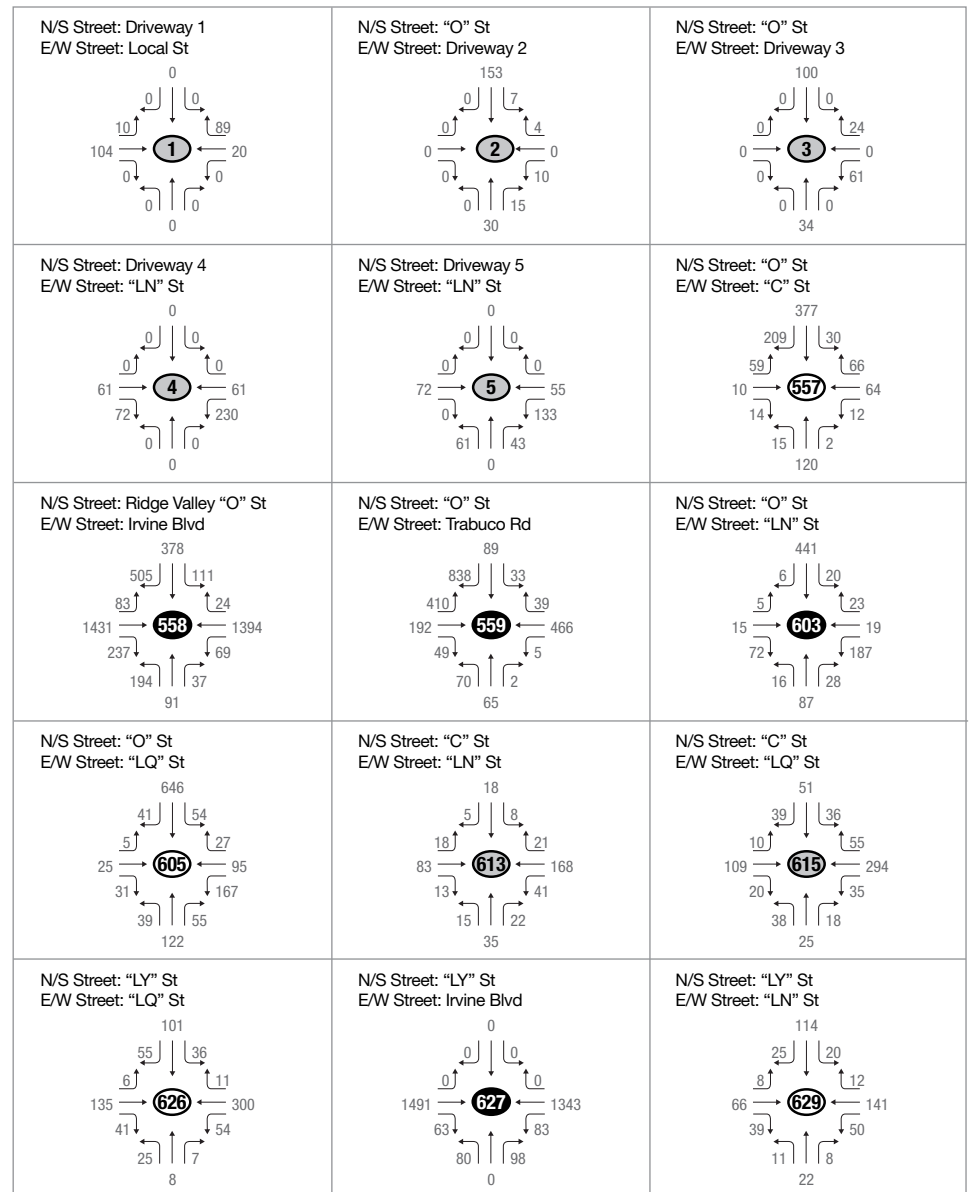
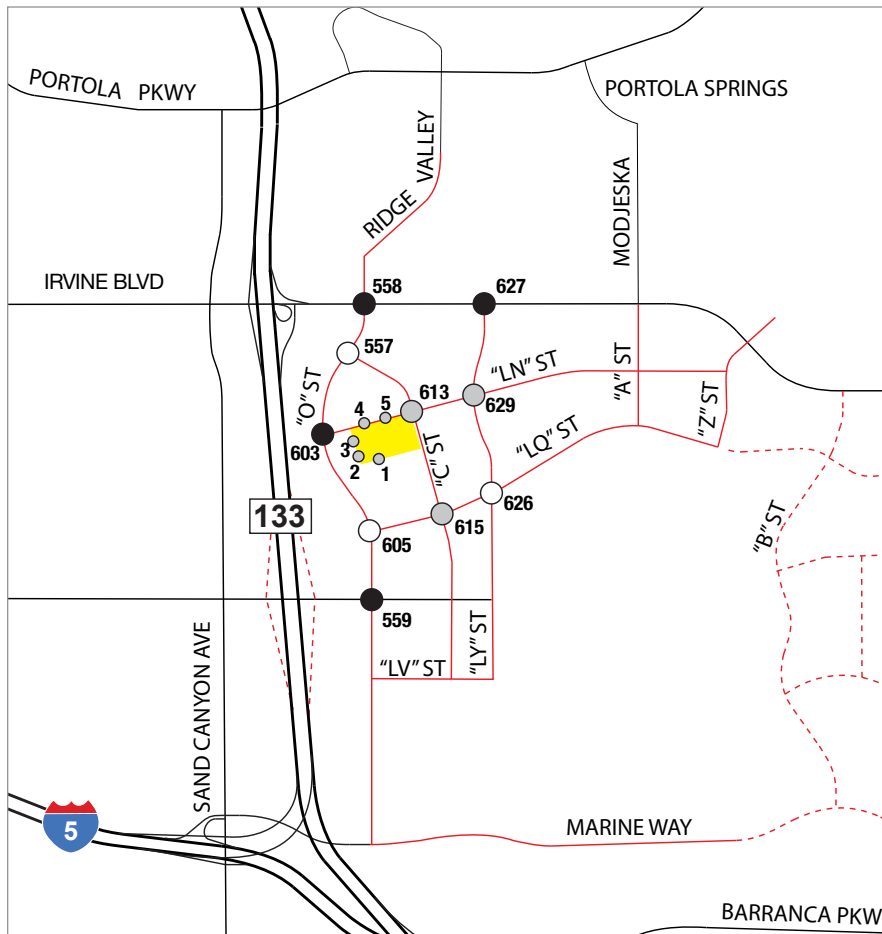
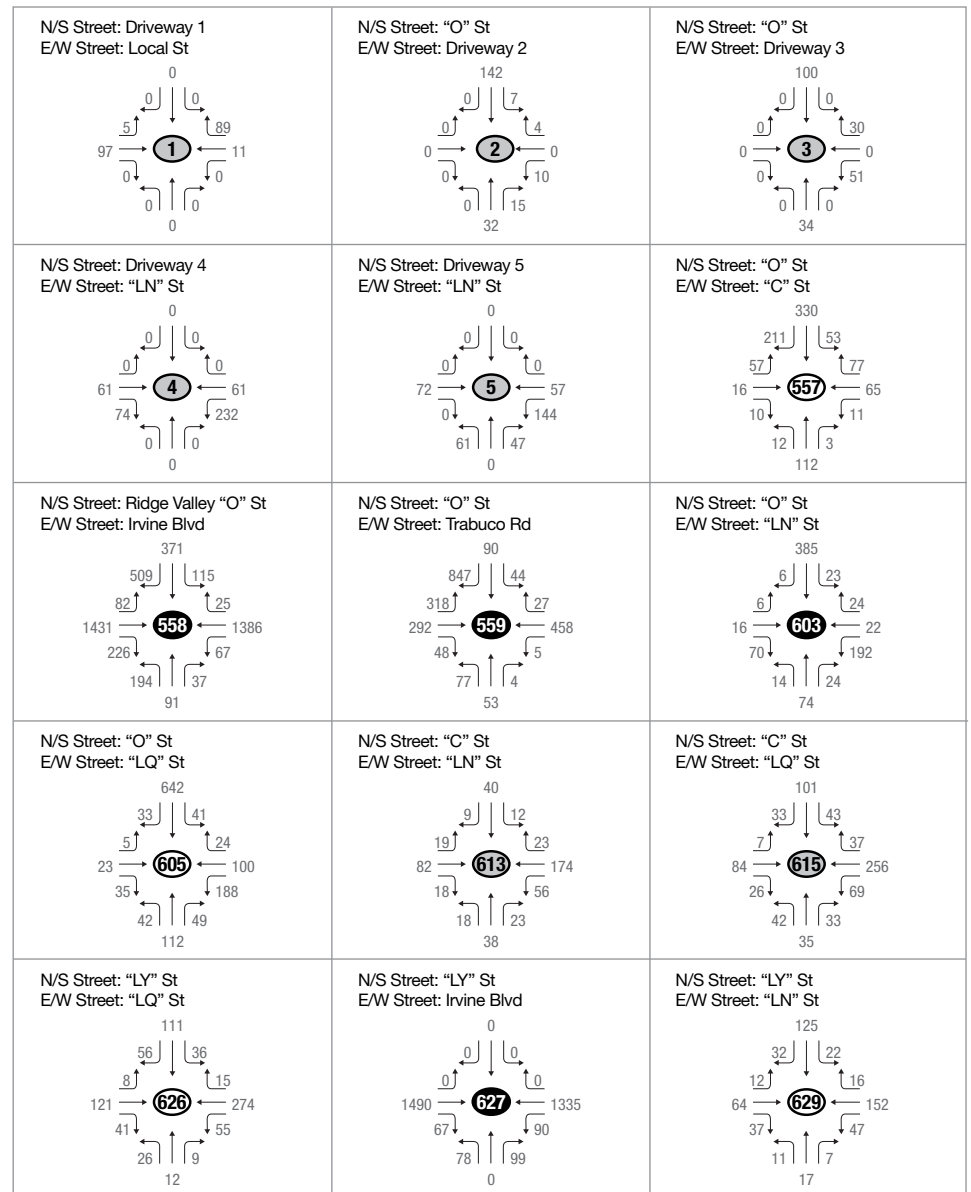


Figure 7.3 Year 2017 Peak Hour Volumes – 2012 Modified Project Options 2 – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume



7.2 YEAR 2030

Year 2030 with project ADT volumes on study area arterials are listed in Table 7-7. Table 7-8 includes a summary of the 2030 (2012 Modified Project Option 1) with project, and Table 7-9 includes the 2030 (2012 Modified Project Option 2) with project analysis summary results.

Year 2030 With Project (2011 Approved Project) deficient segment locations includes:

- Trabuco Road: West of "O" Street – LOS E

Year 2030 With Project (2012 Modified Project Options 1 and 2) deficient segment locations include:

- Trabuco Road: West of "O" Street – LOS F

While these segments are forecast to operate at an unacceptable LOS, there is no identified impact from the project.

Year 2030 with project intersection volumes are shown in Figure 7.4. Figures 7.5 and 7.6 show the 2030 - 2012 Modified Project Option 1 and 2, respectively. A summary of the level of service intersection analysis results for the 2030 with project condition is included in Table 7-10. Table 7-11 includes a summary of the 2030 (2012 Modified Project Option 1) with project, and Table 7-12 includes the 2030 (2012 Modified Project Option 2) with project analysis summary results. All intersections are forecast to operate at LOS D or better with the project for all three scenarios.

Table 7-7 Year 2030 (2011 Approved Project) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2030 NP ADT			2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	30,600	0.570	A	30,600	0.570	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	48,000	0.670	B	48,030	0.670	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	34,100	0.630	B	34,130	0.630	B
4	Irvine Blvd	East of Ridge Valley	6D	54,000	34,600	0.640	B	34,610	0.640	B
5	Irvine Blvd	West of Modjeska	6D	54,000	40,400	0.750	C	40,430	0.750	C
6	Irvine Blvd	East of "B" St	6D	54,000	40,400	0.750	C	40,430	0.750	C
7	Trabuco Rd	West of "O" St	4D	32,000	30,600	0.960	E	30,630	0.960	E
8	Trabuco Rd	East of "O" St	4D	32,000	11,400	0.360	A	11,440	0.360	A
9	"O" St	North of Irvine Bl	4U	28,000	14,700	0.530	A	14,730	0.530	A
10	"O" St	South of Irvine Bl	4U	28,000	11,000	0.390	A	11,060	0.400	A
11	"O" St	North of "LN" St	4U	28,000	9,300	0.330	A	9,360	0.330	A
12	"O" St	South of "LN" St	4U	28,000	11,500	0.410	A	11,600	0.410	A
13	"O" St	North of Trabuco Rd	4U	28,000	20,900	0.750	C	21,000	0.750	C
14	"O" St	South of Trabuco Rd	4U	28,000	12,700	0.450	A	12,780	0.460	A
15	"LQ" St	West of "C" St	2D	13,000	6,100	0.470	A	6,250	0.480	A
16	"LQ" St	East of "C" St	2D	13,000	6,300	0.480	A	6,530	0.500	A
17	"LQ" St	West of "A" St	2D	13,000	6,300	0.480	A	6,430	0.490	A
18	"LQ" St	East of "A" St	2D	13,000	6,700	0.520	A	6,740	0.520	A
19	"LN" St	West of "C" St	2D	13,000	1,800	0.140	A	2,460	0.190	A
20	"LN" St	East of "C" St	2D	13,000	2,000	0.150	A	2,280	0.180	A
21	"LN" St	West of "A" St	2D	13,000	1,500	0.120	A	1,650	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,400	0.110	A	1,440	0.110	A
23	"VV" St	West of "LM" St	2D	13,000	1,500	0.120	A	1,550	0.120	A
24	"VV" St	East of "LM" St	2D	13,000	600	0.050	A	1,060	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,600	0.200	A	2,610	0.200	A
26	"LY" St	North of "LQ" St	2D	13,000	2,200	0.170	A	2,210	0.170	A
27	"LY" St	South of "LQ" St	2D	13,000	2,500	0.190	A	2,600	0.200	A
28	"LM" St	South of "LN" St	2D	13,000	1,100	0.080	A	1,250	0.100	A

Table 7-8 Year 2030 (2012 Modified Project Option 1) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2030 NP ADT			2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	30,400	0.560	A	30,400	0.560	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	48,300	0.670	B	48,330	0.670	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	38,500	0.710	C	38,530	0.710	C
4	Irvine Blvd	East of Ridge Valley	6D	54,000	39,300	0.730	C	39,310	0.730	C
5	Irvine Blvd	West of Modjeska	6D	54,000	45,400	0.840	D	45,430	0.840	D
6	Irvine Blvd	East of "B" St	6D	54,000	44,000	0.810	D	44,030	0.820	D
7	Trabuco Rd	West of "O" St	4D	32,000	34,200	1.070	F	34,230	1.070	F
8	Trabuco Rd	East of "O" St	4D	32,000	11,200	0.350	A	11,240	0.350	A
9	"O" St	North of Irvine Bl	4U	28,000	14,600	0.520	A	14,630	0.520	A
10	"O" St	South of Irvine Bl	4U	28,000	10,200	0.360	A	10,260	0.370	A
11	"O" St	North of "LN" St	4U	28,000	9,400	0.340	A	9,460	0.340	A
12	"O" St	South of "LN" St	4U	28,000	12,500	0.450	A	12,600	0.450	A
13	"O" St	North of Trabuco Rd	4U	28,000	23,100	0.830	D	23,200	0.830	D
14	"O" St	South of Trabuco Rd	4U	28,000	13,800	0.490	A	13,880	0.500	A
15	"LQ" St	West of "C" St	2D	13,000	6,900	0.530	A	7,050	0.540	A
16	"LQ" St	East of "C" St	2D	13,000	7,100	0.550	A	7,330	0.560	A
17	"LQ" St	West of "A" St	2D	13,000	7,100	0.550	A	7,230	0.560	A
18	"LQ" St	East of "A" St	2D	13,000	7,000	0.540	A	7,040	0.540	A
19	"LN" St	West of "C" St	2D	13,000	2,300	0.180	A	2,960	0.230	A
20	"LN" St	East of "C" St	2D	13,000	2,700	0.210	A	2,980	0.230	A
21	"LN" St	West of "A" St	2D	13,000	1,600	0.120	A	1,750	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,600	0.120	A	1,640	0.130	A
23	"VV" St	West of "LM" St	2D	13,000	1,600	0.120	A	1,650	0.130	A
24	"VV" St	East of "LM" St	2D	13,000	600	0.050	A	1,060	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,500	0.190	A	2,510	0.190	A
26	"LY" St	North of "LQ" St	2D	13,000	2,400	0.180	A	2,410	0.190	A
27	"LY" St	South of "LQ" St	2D	13,000	2,900	0.220	A	3,000	0.230	A
28	"LM" St	South of "LN" St	2D	13,000	1,200	0.090	A	1,350	0.100	A

Table 7-9 Year 2030 (2012 Modified Project Option 2) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	2030 NP ADT			2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	30,500	0.560	A	30,500	0.560	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	48,300	0.670	B	48,330	0.670	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	38,300	0.710	C	38,330	0.710	C
4	Irvine Blvd	East of Ridge Valley	6D	54,000	39,200	0.730	C	39,210	0.730	C
5	Irvine Blvd	West of Modjeska	6D	54,000	45,300	0.840	D	45,330	0.840	D
6	Irvine Blvd	East of "B" St	6D	54,000	44,000	0.810	D	44,030	0.820	D
7	Trabuco Rd	West of "O" St	4D	32,000	34,400	1.080	F	34,430	1.080	F
8	Trabuco Rd	East of "O" St	4D	32,000	12,400	0.390	A	12,440	0.390	A
9	"O" St	North of Irvine Bl	4U	28,000	14,500	0.520	A	14,530	0.520	A
10	"O" St	South of Irvine Bl	4U	28,000	9,900	0.350	A	9,960	0.360	A
11	"O" St	North of "LN" St	4U	28,000	8,700	0.310	A	8,760	0.310	A
12	"O" St	South of "LN" St	4U	28,000	11,900	0.430	A	11,990	0.430	A
13	"O" St	North of Trabuco Rd	4U	28,000	21,600	0.770	C	21,690	0.770	C
14	"O" St	South of Trabuco Rd	4U	28,000	13,300	0.480	A	13,360	0.480	A
15	"LQ" St	West of "C" St	2D	13,000	5,700	0.440	A	5,850	0.450	A
16	"LQ" St	East of "C" St	2D	13,000	6,800	0.520	A	7,020	0.540	A
17	"LQ" St	West of "A" St	2D	13,000	7,100	0.550	A	7,230	0.560	A
18	"LQ" St	East of "A" St	2D	13,000	7,000	0.540	A	7,040	0.540	A
19	"LN" St	West of "C" St	2D	13,000	2,600	0.200	A	3,280	0.250	A
20	"LN" St	East of "C" St	2D	13,000	2,800	0.220	A	3,100	0.240	A
21	"LN" St	West of "A" St	2D	13,000	1,600	0.120	A	1,750	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,600	0.120	A	1,640	0.130	A
23	"VV" St	West of "LM" St	2D	13,000	2,000	0.150	A	2,030	0.160	A
24	"VV" St	East of "LM" St	2D	13,000	1,700	0.130	A	2,160	0.170	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,600	0.200	A	2,610	0.200	A
26	"LY" St	North of "LQ" St	2D	13,000	2,400	0.180	A	2,430	0.190	A
27	"LY" St	South of "LQ" St	2D	13,000	3,100	0.240	A	3,190	0.250	A
28	"LM" St	South of "LN" St	2D	13,000	1,300	0.100	A	1,450	0.110	A

Table 7-10 Year 2030 (2011 Approved Project) With Project Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.06	A	0.19	A	0.13	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	
4	Driveway 4 & "LN" St	U	0.16	A	0.20	A	0.04	
5	Driveway 5 & "LN" St	U	0.14	A	0.21	A	0.07	
557	"O" St & "C" St	R	0.37	A	0.38	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.69	B	0.70	B	0.01	
559	"O" St & Trabuco Rd	S	0.67	B	0.69	B	0.02	
603	"O" St & "LN" St	S	0.33	A	0.35	A	0.02	
605	"O" St & "LQ" St	R	0.56	A	0.58	A	0.02	
613	"C" St & "LN" St	U	0.20	A	0.27	A	0.07	
615	"C" St & "LQ" St	U	0.31	A	0.36	A	0.05	
626	"LY" St & "LQ" St	R	0.49	A	0.53	A	0.04	
627	"LY" St & Irvine Blvd	S	0.58	A	0.58	A	0.00	
629	"LY" St & "LN" St	U	0.27	A	0.30	A	0.03	

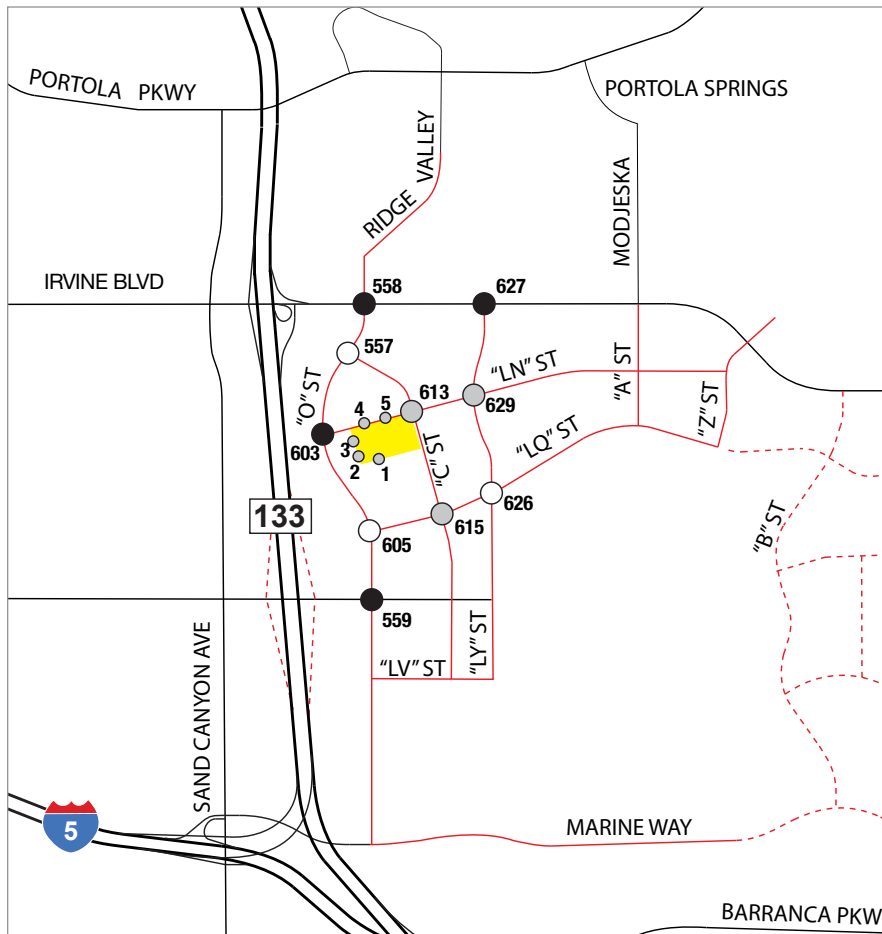
Table 7-11 Year 2030 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.06	A	0.19	A	0.13	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	
4	Driveway 4 & "LN" St	U	0.18	A	0.22	A	0.04	
5	Driveway 5 & "LN" St	U	0.16	A	0.22	A	0.06	
557	"O" St & "C" St	R	0.38	A	0.39	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	
559	"O" St & Trabuco Rd	S	0.84	D	0.86	D	0.02	
603	"O" St & "LN" St	S	0.38	A	0.40	A	0.02	
605	"O" St & "LQ" St	R	0.62	B	0.64	B	0.02	
613	"C" St & "LN" St	U	0.24	A	0.31	A	0.07	
615	"C" St & "LQ" St	U	0.39	A	0.44	A	0.05	
626	"LY" St & "LQ" St	R	0.56	A	0.60	A	0.04	
627	"LY" St & Irvine Blvd	S	0.54	A	0.54	A	0.00	
629	"LY" St & "LN" St	U	0.33	A	0.37	A	0.04	

Table 7-12 Year 2030 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.06	A	0.18	A	0.12	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	
4	Driveway 4 & "LN" St	U	0.19	A	0.23	A	0.04	
5	Driveway 5 & "LN" St	U	0.17	A	0.24	A	0.07	
557	"O" St & "C" St	R	0.38	A	0.39	A	0.01	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	
559	"O" St & Trabuco Rd	S	0.83	D	0.85	D	0.02	
603	"O" St & "LN" St	S	0.37	A	0.39	A	0.02	
605	"O" St & "LQ" St	R	0.62	B	0.64	B	0.02	
613	"C" St & "LN" St	U	0.26	A	0.33	A	0.07	
615	"C" St & "LQ" St	U	0.38	A	0.43	A	0.05	
626	"LY" St & "LQ" St	R	0.56	A	0.60	A	0.04	
627	"LY" St & Irvine Blvd	S	0.54	A	0.54	A	0.00	
629	"LY" St & "LN" St	U	0.33	A	0.36	A	0.03	

Figure 7.4 Year 2030 Peak Hour Volumes – 2011 Approved Project – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

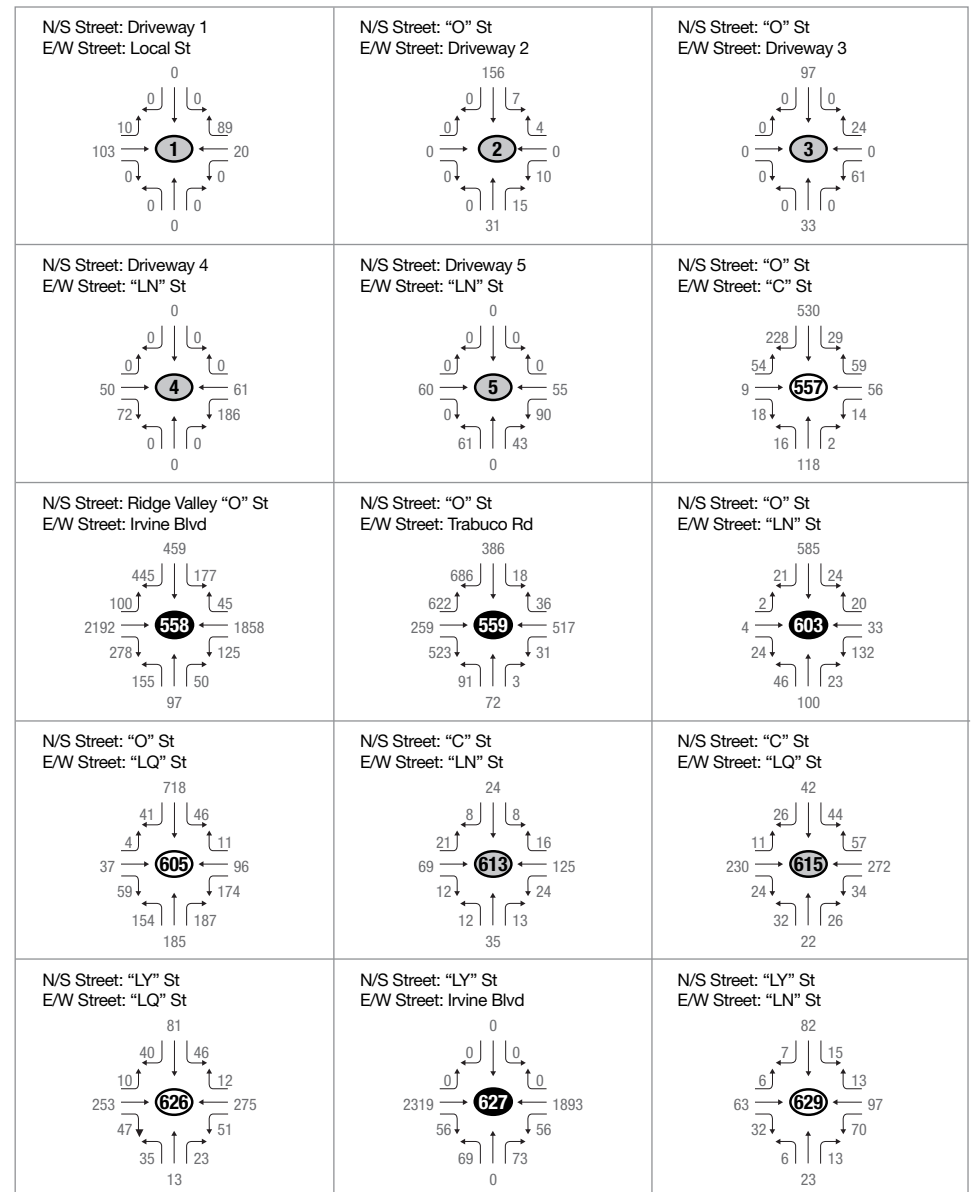
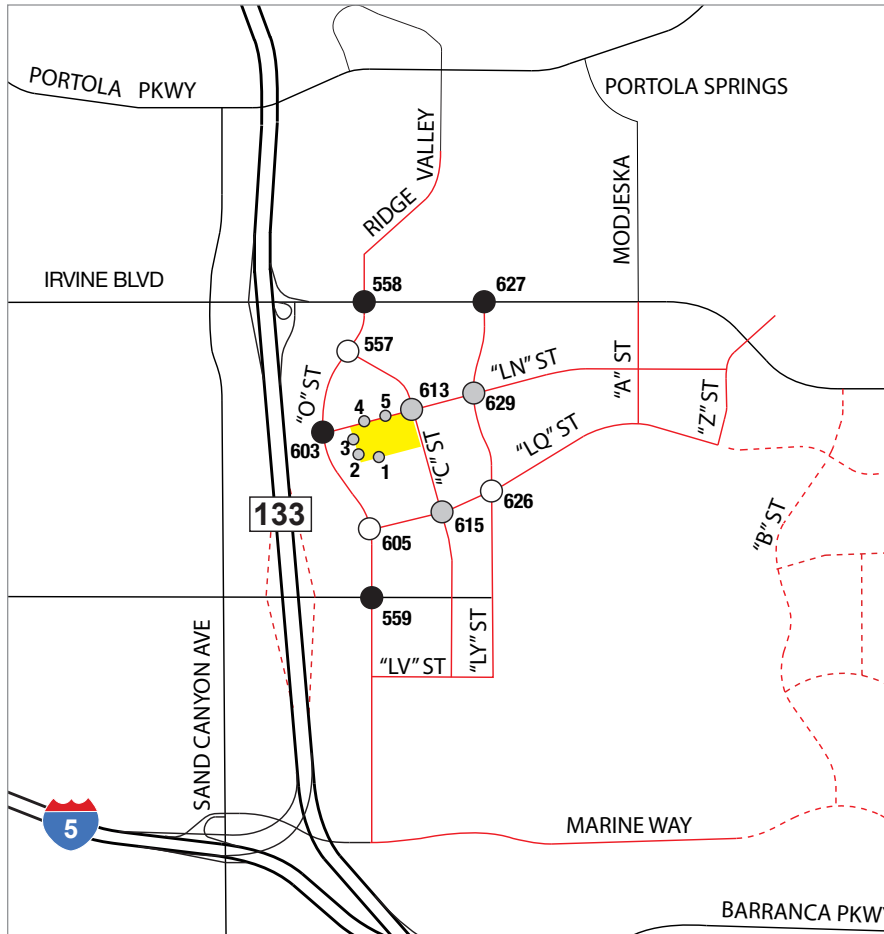


Figure 7.5 Year 2030 Peak Hour Volumes –
2012 Modified Project Options 1 – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## ↓ Turning Movement Volume

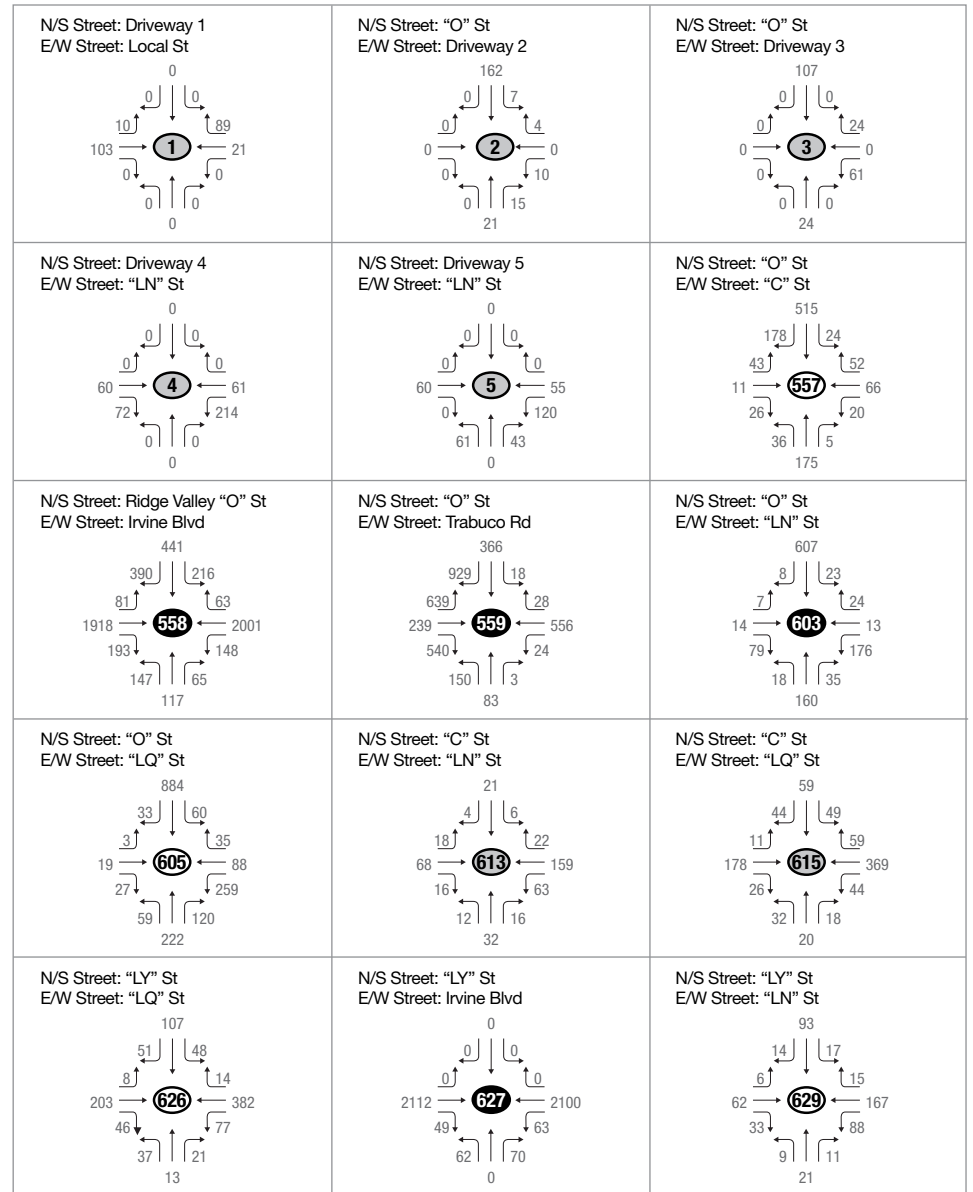
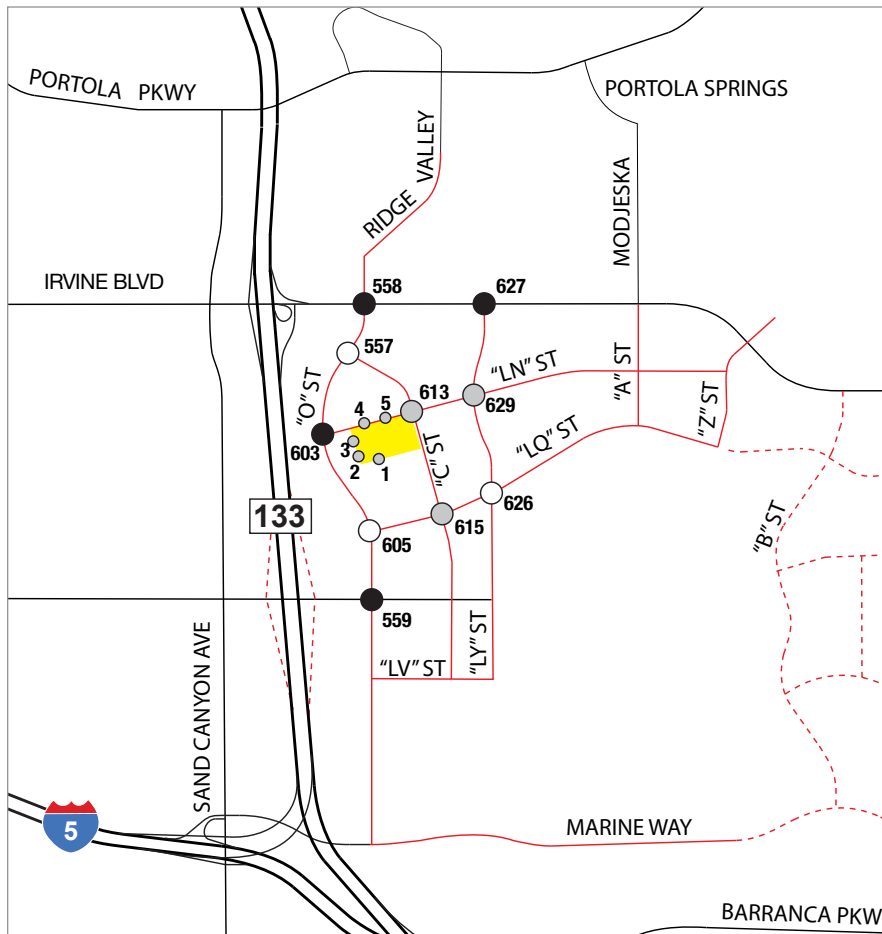
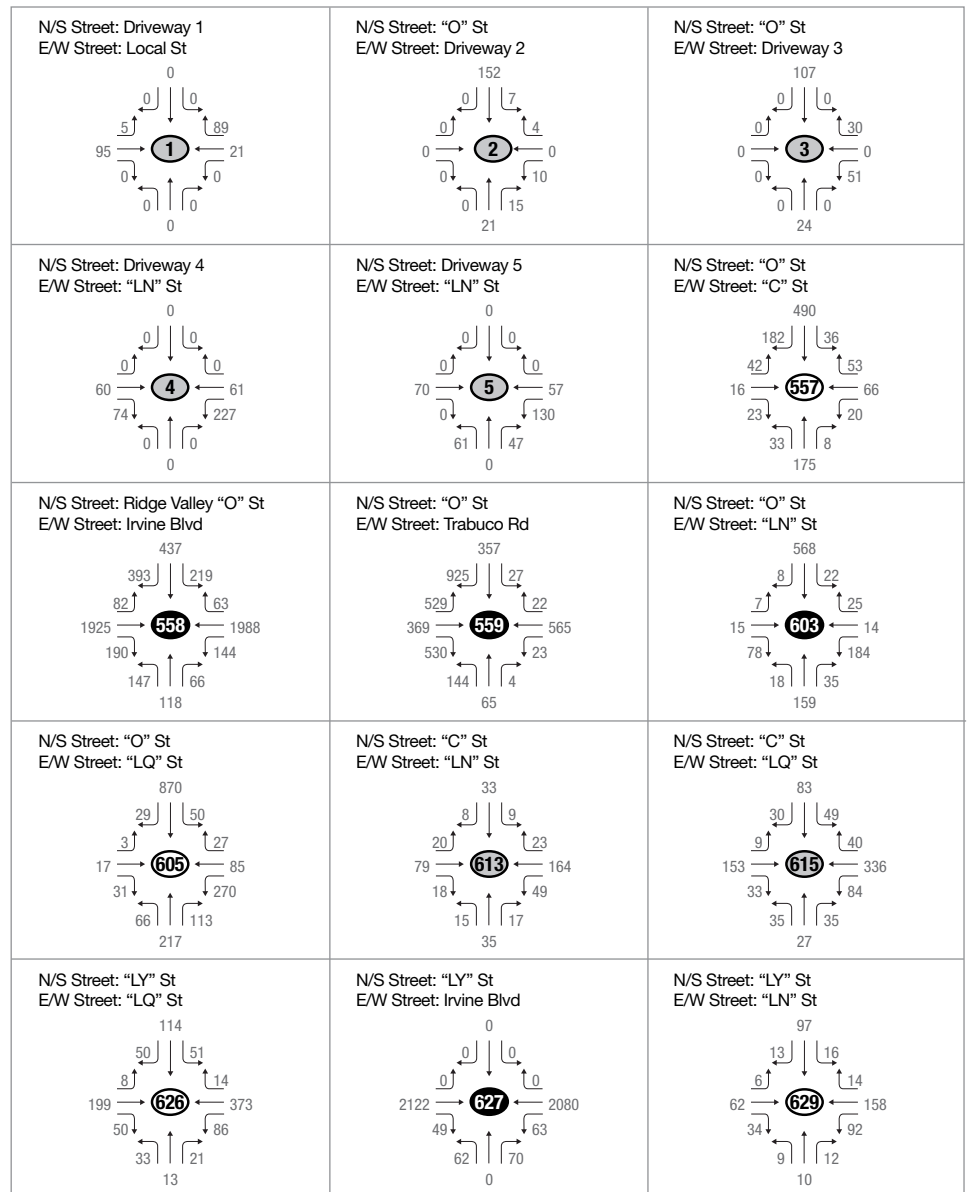


Figure 7.6 Year 2030 Peak Hour Volumes – 2012 Modified Project Options 2 – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume



7.3 POST-2030

Post-2030 with project ADT volumes on study area arterials are listed in Table 7-13. Table 7-14 includes a summary of the Post-2030 (2012 Modified Project Option 1) with project, and Table 7-15 includes the Post-2030 (2012 Modified Project Option 2) with project analysis summary results.

Post-2030 With Project (2011 Approved Project) deficient segment locations includes:

- Trabuco Road: West of “O” Street – LOS E

Post-2030 With Project (2012 Modified Project Options 1 and 2) deficient segment locations include:

- Trabuco Road: West of “O” Street – LOS F

While these segments are forecast to operate at an unacceptable LOS, there is no identified impact from the project.

Post-2030 with project intersection volumes are shown in Figure 7.7. Figures 7.8 and 7.9 show the Post-2030 (2012 Modified Project Options 1 and 2), respectively. A summary of the level of service intersection analysis results for the Post-2030 with project condition is included in Table 7-16. Table 7-17 includes a summary of the 2030 (2012 Modified Project Option 1) with project, and Table 7-18 includes the Post-2030 (2012 Modified Project Option 2) with project analysis summary results. All intersections are forecast to operate at acceptable levels of service and no project impacts were identified.

Table 7-13 Post-2030 (2011 Approved Project) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	Post 2030 NP ADT			Post 2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	32,800	0.610	B	32,800	0.610	B
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	50,500	0.700	B	50,530	0.700	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	32,600	0.600	A	32,630	0.600	A
4	Irvine Blvd	East of Ridge Valley	6D	54,000	33,500	0.620	B	33,510	0.620	B
5	Irvine Blvd	West of Modjeska	6D	54,000	38,400	0.710	C	38,430	0.710	C
6	Irvine Blvd	East of "B" St	6D	54,000	38,500	0.710	C	38,530	0.710	C
7	Trabuco Rd	West of "O" St	4D	32,000	30,300	0.950	E	30,330	0.950	E
8	Trabuco Rd	East of "O" St	4D	32,000	11,400	0.360	A	11,440	0.360	A
9	"O" St	North of Irvine Bl	4U	28,000	16,700	0.600	A	16,730	0.600	A
10	"O" St	South of Irvine Bl	4U	28,000	11,600	0.410	A	11,660	0.420	A
11	"O" St	North of "LN" St	4U	28,000	9,400	0.340	A	9,460	0.340	A
12	"O" St	South of "LN" St	4U	28,000	11,500	0.410	A	11,600	0.410	A
13	"O" St	North of Trabuco Rd	4U	28,000	20,300	0.730	C	20,400	0.730	C
14	"O" St	South of Trabuco Rd	4U	28,000	12,700	0.450	A	12,780	0.460	A
15	"LQ" St	West of "C" St	2D	13,000	6,000	0.460	A	6,150	0.470	A
16	"LQ" St	East of "C" St	2D	13,000	6,300	0.480	A	6,530	0.500	A
17	"LQ" St	West of "A" St	2D	13,000	6,100	0.470	A	6,230	0.480	A
18	"LQ" St	East of "A" St	2D	13,000	6,800	0.520	A	6,840	0.530	A
19	"LN" St	West of "C" St	2D	13,000	1,800	0.140	A	2,460	0.190	A
20	"LN" St	East of "C" St	2D	13,000	2,000	0.150	A	2,280	0.180	A
21	"LN" St	West of "A" St	2D	13,000	1,400	0.110	A	1,550	0.120	A
22	"LN" St	East of "A" St	2D	13,000	1,400	0.110	A	1,440	0.110	A
23	"VV" St	West of "LM" St	2D	13,000	1,500	0.120	A	1,550	0.120	A
24	"VV" St	East of "LM" St	2D	13,000	600	0.050	A	1,060	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,500	0.190	A	2,510	0.190	A
26	"LY" St	North of "LQ" St	2D	13,000	2,100	0.160	A	2,110	0.160	A
27	"LY" St	South of "LQ" St	2D	13,000	2,300	0.180	A	2,400	0.180	A
28	"LM" St	South of "LN" St	2D	13,000	1,100	0.080	A	1,250	0.100	A

Table 7-14 Post-2030 (2012 Modified Project Option 1) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	Post 2030 NP ADT			Post 2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	32,000	0.590	A	32,000	0.590	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	50,300	0.700	B	50,330	0.700	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	36,600	0.680	B	36,630	0.680	B
4	Irvine Blvd	East of Ridge Valley	6D	54,000	37,700	0.700	B	37,710	0.700	B
5	Irvine Blvd	West of Modjeska	6D	54,000	43,000	0.800	C	43,030	0.800	C
6	Irvine Blvd	East of "B" St	6D	54,000	41,700	0.770	C	41,730	0.770	C
7	Trabuco Rd	West of "O" St	4D	32,000	34,100	1.070	F	34,130	1.070	F
8	Trabuco Rd	East of "O" St	4D	32,000	11,200	0.350	A	11,240	0.350	A
9	"O" St	North of Irvine Bl	4U	28,000	16,600	0.590	A	16,630	0.590	A
10	"O" St	South of Irvine Bl	4U	28,000	10,600	0.380	A	10,660	0.380	A
11	"O" St	North of "LN" St	4U	28,000	9,500	0.340	A	9,560	0.340	A
12	"O" St	South of "LN" St	4U	28,000	12,500	0.450	A	12,600	0.450	A
13	"O" St	North of Trabuco Rd	4U	28,000	22,900	0.820	D	23,000	0.820	D
14	"O" St	South of Trabuco Rd	4U	28,000	13,900	0.500	A	13,980	0.500	A
15	"LQ" St	West of "C" St	2D	13,000	6,800	0.520	A	6,950	0.530	A
16	"LQ" St	East of "C" St	2D	13,000	7,100	0.550	A	7,330	0.560	A
17	"LQ" St	West of "A" St	2D	13,000	7,100	0.550	A	7,230	0.560	A
18	"LQ" St	East of "A" St	2D	13,000	7,000	0.540	A	7,040	0.540	A
19	"LN" St	West of "C" St	2D	13,000	2,200	0.170	A	2,860	0.220	A
20	"LN" St	East of "C" St	2D	13,000	2,500	0.190	A	2,780	0.210	A
21	"LN" St	West of "A" St	2D	13,000	1,500	0.120	A	1,650	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,500	0.120	A	1,540	0.120	A
23	"VV" St	West of "LM" St	2D	13,000	1,600	0.120	A	1,650	0.130	A
24	"VV" St	East of "LM" St	2D	13,000	600	0.050	A	1,060	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,100	0.160	A	2,110	0.160	A
26	"LY" St	North of "LQ" St	2D	13,000	2,300	0.180	A	2,310	0.180	A
27	"LY" St	South of "LQ" St	2D	13,000	2,600	0.200	A	2,700	0.210	A
28	"LM" St	South of "LN" St	2D	13,000	1,200	0.090	A	1,350	0.100	A

Table 7-15 Post-2030 (2012 Modified Project Option 2) Arterial Level of Service

#	Street Name	Limits	# Lanes	Capacity	Post 2030 NP ADT			Post 2030 WP ADT		
					ADT	V/C	LOS	ADT	V/C	LOS
1	Sand Canyon Ave	South of Irvine Bl	6D	54,000	32,000	0.590	A	32,000	0.590	A
2	Sand Canyon Ave	South of Trabuco Rd	8D	72,000	50,330	0.700	B	50,330	0.700	B
3	Irvine Blvd	East of Sand Canyon Av	6D	54,000	36,430	0.670	B	36,430	0.670	B
4	Irvine Blvd	East of Ridge Valley	6D	54,000	37,710	0.700	B	37,710	0.700	B
5	Irvine Blvd	West of Modjeska	6D	54,000	43,030	0.800	C	43,030	0.800	C
6	Irvine Blvd	East of "B" St	6D	54,000	41,730	0.770	C	41,730	0.770	C
7	Trabuco Rd	West of "O" St	4D	32,000	34,430	1.080	F	34,430	1.080	F
8	Trabuco Rd	East of "O" St	4D	32,000	12,440	0.390	A	12,440	0.390	A
9	"O" St	North of Irvine Bl	4U	28,000	16,630	0.590	A	16,630	0.590	A
10	"O" St	South of Irvine Bl	4U	28,000	10,460	0.370	A	10,460	0.370	A
11	"O" St	North of "LN" St	4U	28,000	8,960	0.320	A	8,960	0.320	A
12	"O" St	South of "LN" St	4U	28,000	11,990	0.430	A	11,990	0.430	A
13	"O" St	North of Trabuco Rd	4U	28,000	21,490	0.770	C	21,490	0.770	C
14	"O" St	South of Trabuco Rd	4U	28,000	13,460	0.480	A	13,460	0.480	A
15	"LQ" St	West of "C" St	2D	13,000	5,750	0.440	A	5,750	0.440	A
16	"LQ" St	East of "C" St	2D	13,000	7,020	0.540	A	7,020	0.540	A
17	"LQ" St	West of "A" St	2D	13,000	7,130	0.550	A	7,130	0.550	A
18	"LQ" St	East of "A" St	2D	13,000	6,940	0.530	A	6,940	0.530	A
19	"LN" St	West of "C" St	2D	13,000	3,080	0.240	A	3,080	0.240	A
20	"LN" St	East of "C" St	2D	13,000	3,000	0.230	A	3,000	0.230	A
21	"LN" St	West of "A" St	2D	13,000	1,650	0.130	A	1,650	0.130	A
22	"LN" St	East of "A" St	2D	13,000	1,540	0.120	A	1,540	0.120	A
23	"VV" St	West of "LM" St	2D	13,000	1,730	0.130	A	1,730	0.130	A
24	"VV" St	East of "LM" St	2D	13,000	1,060	0.080	A	1,060	0.080	A
25	"LY" St	South of Irvine Bl	2D	13,000	2,310	0.180	A	2,310	0.180	A
26	"LY" St	North of "LQ" St	2D	13,000	2,230	0.170	A	2,230	0.170	A
27	"LY" St	South of "LQ" St	2D	13,000	2,890	0.220	A	2,890	0.220	A
28	"LM" St	South of "LN" St	2D	13,000	1,450	0.110	A	1,450	0.110	A

Table 7-16 Post-2030 (2011 Approved Project) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.06	A	0.19	A	0.13	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	
4	Driveway 4 & "LN" St	U	0.16	A	0.21	A	0.05	
5	Driveway 5 & "LN" St	U	0.14	A	0.21	A	0.07	
557	"O" St & "C" St	R	0.37	A	0.39	A	0.02	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.68	B	0.69	B	0.01	
559	"O" St & Trabuco Rd	S	0.63	B	0.65	B	0.02	
603	"O" St & "LN" St	S	0.32	A	0.35	A	0.03	
605	"O" St & "LQ" St	R	0.54	A	0.56	A	0.02	
613	"C" St & "LN" St	U	0.21	A	0.28	A	0.07	
615	"C" St & "LQ" St	U	0.31	A	0.36	A	0.05	
626	"LY" St & "LQ" St	R	0.48	A	0.52	A	0.04	
627	"LY" St & Irvine Blvd	S	0.57	A	0.57	A	0.00	
629	"LY" St & "LN" St	U	0.26	A	0.29	A	0.03	

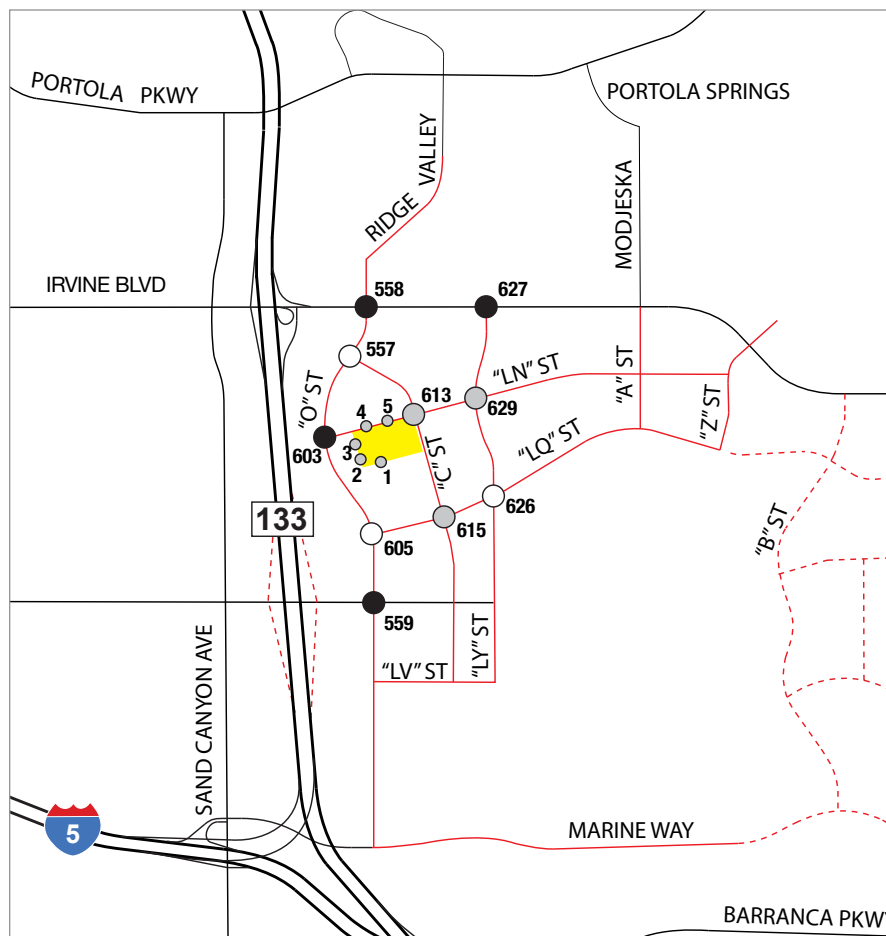
Table 7-17 Post-2030 (2012 Modified Project Option 1) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.07	A	0.19	A	0.12	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.12	A	0.04	
4	Driveway 4 & "LN" St	U	0.16	A	0.20	A	0.04	
5	Driveway 5 & "LN" St	U	0.14	A	0.21	A	0.07	
557	"O" St & "C" St	R	0.38	A	0.40	A	0.02	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	
559	"O" St & Trabuco Rd	S	0.81	D	0.83	D	0.02	
603	"O" St & "LN" St	S	0.36	A	0.38	A	0.02	
605	"O" St & "LQ" St	R	0.65	B	0.67	B	0.02	
613	"C" St & "LN" St	U	0.23	A	0.30	A	0.07	
615	"C" St & "LQ" St	U	0.37	A	0.42	A	0.05	
626	"LY" St & "LQ" St	R	0.54	A	0.57	A	0.03	
627	"LY" St & Irvine Blvd	S	0.52	A	0.53	A	0.01	
629	"LY" St & "LN" St	U	0.30	A	0.34	A	0.04	

Table 7-18 Post-2030 (2012 Modified Project Option 2) Peak Hour Intersection LOS Comparison

Intersection		Control	AM Peak Hour					
			No Project		With Project		Change in V/C	Impact
			V/C	LOS	V/C	LOS		
1	Driveway 1 & "VV" St	U	0.06	A	0.18	A	0.12	
2	"LM" St & Driveway 2	U	0.08	A	0.12	A	0.04	
3	"LM" St & Driveway 3	U	0.08	A	0.11	A	0.03	
4	Driveway 4 & "LN" St	U	0.17	A	0.22	A	0.05	
5	Driveway 5 & "LN" St	U	0.16	A	0.23	A	0.07	
557	"O" St & "C" St	R	0.38	A	0.40	A	0.02	
558	Ridge Valley/"O" St & Irvine Blvd	S	0.63	B	0.64	B	0.01	
559	"O" St & Trabuco Rd	S	0.81	D	0.82	D	0.01	
603	"O" St & "LN" St	S	0.36	A	0.38	A	0.02	
605	"O" St & "LQ" St	R	0.65	B	0.67	B	0.02	
613	"C" St & "LN" St	U	0.25	A	0.32	A	0.07	
615	"C" St & "LQ" St	U	0.37	A	0.42	A	0.05	
626	"LY" St & "LQ" St	R	0.54	A	0.58	A	0.04	
627	"LY" St & Irvine Blvd	S	0.53	A	0.53	A	0.00	
629	"LY" St & "LN" St	U	0.30	A	0.33	A	0.03	

Figure 7.7 Post 2030 Peak Hour Volumes – 2011 Approved Project – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

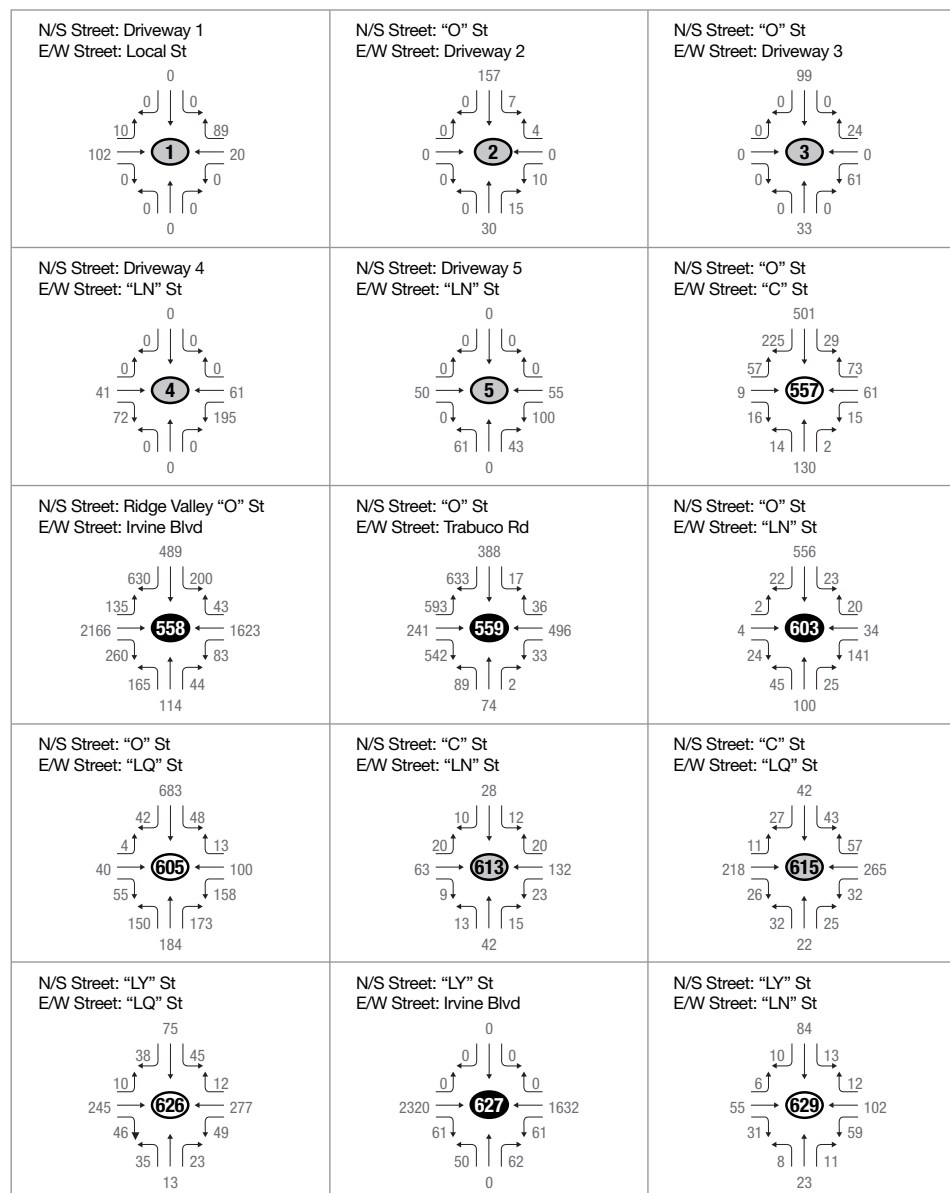
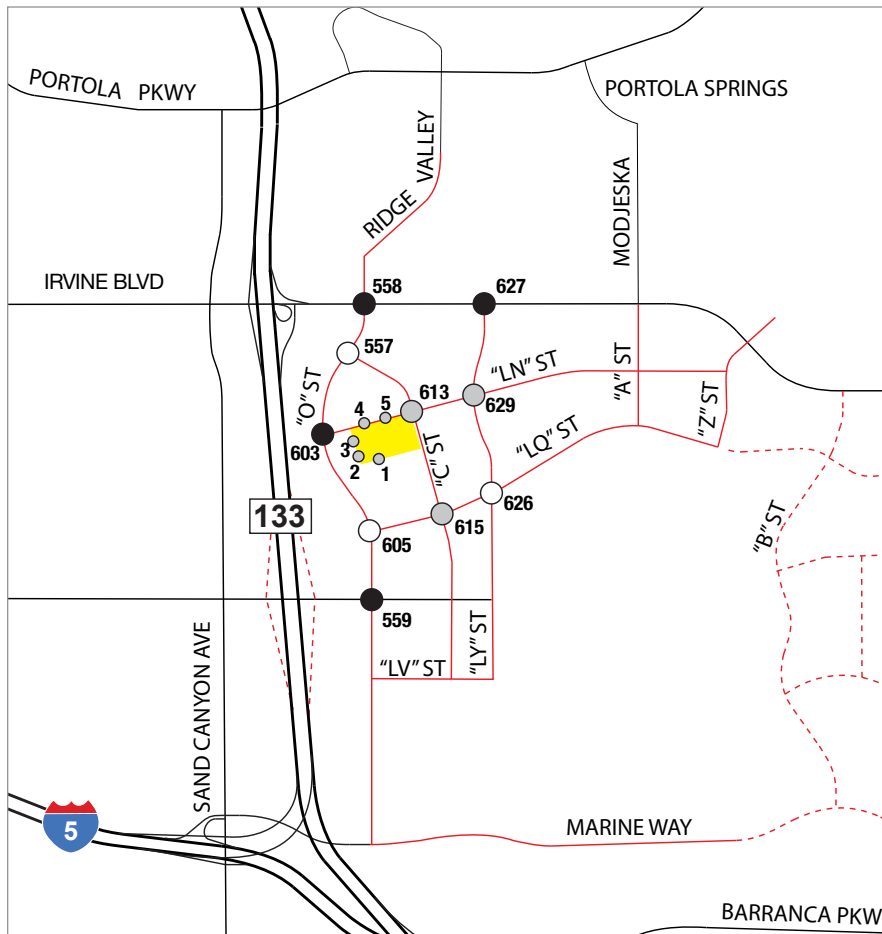


Figure 7.8 Post 2030 Peak Hour Volumes – 2030 Modified Project Options 1 – With Project



LEGEND

- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## Turning Movement Volume

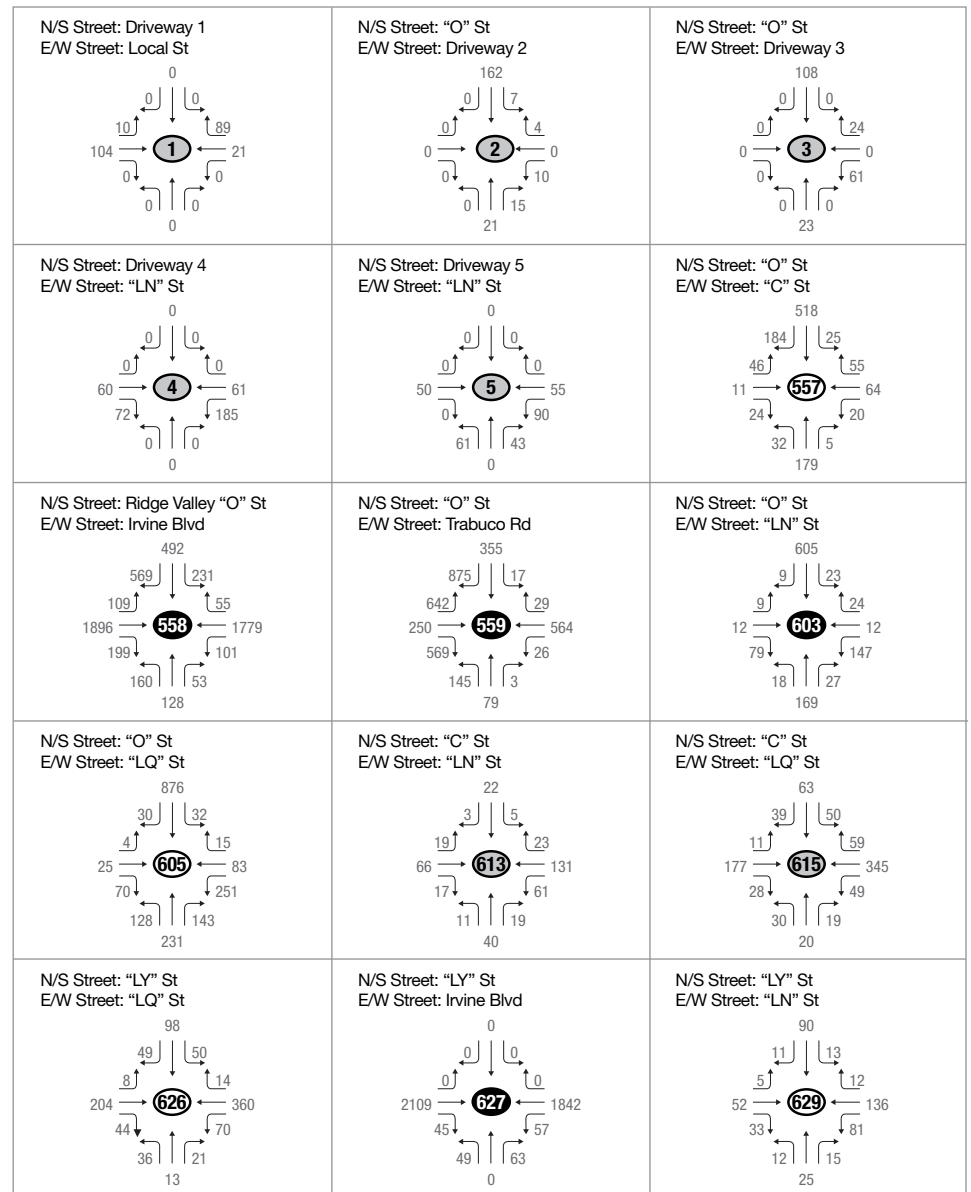
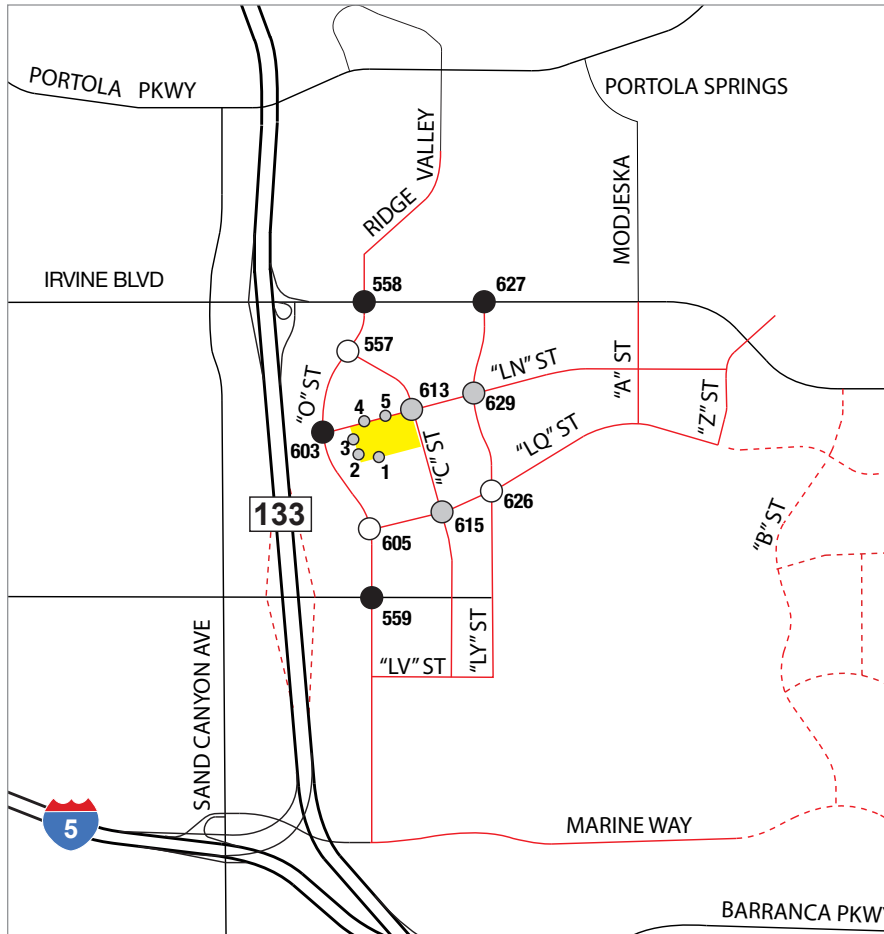
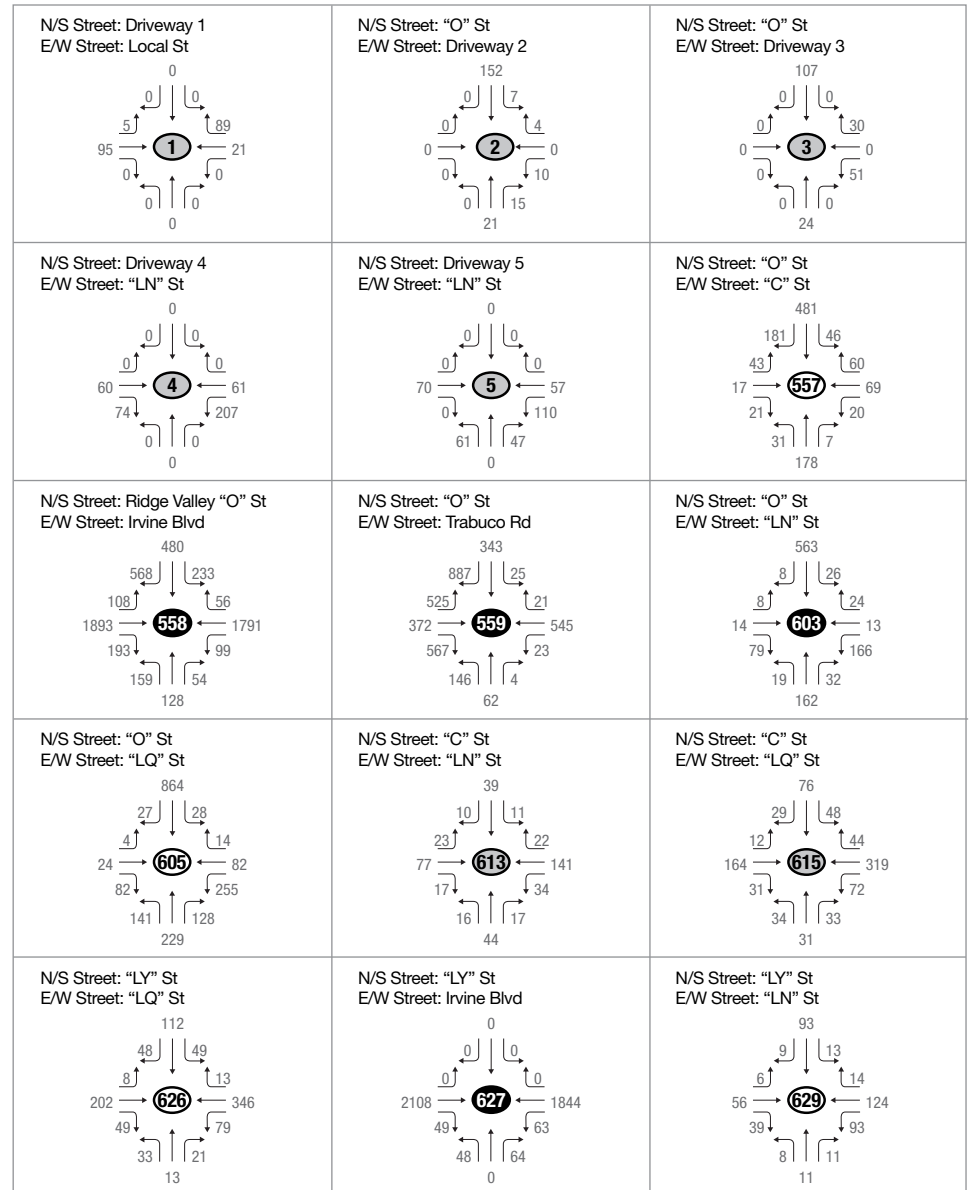


Figure 7.9 Post 2030 Peak Hour Volumes –
2012 Modified Project Options 2 – With Project



- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- ## ↓ Turning Movement Volume



8. Special Analyses

The analyses for site access, parking, pedestrian and bicycle circulation and access traffic are included in this section.

8.1 SITE ACCESS ANALYSIS

The K-8 school site has five unsignalized access driveways located along "O" Street and "LN" Street and "LQ" Street. These access points are proposed to serve a maximum capacity of 1,000 students and school employees that will utilize the facility during the school year. Tables 8-1 to 8-4 show the average delay for all seven access driveways for each scenario.

Table 8-1: Site Access Analysis – Year 2014

Intersection		2011 AP		2012 MP1		2012 MP2	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Driveway 1 & "VV" St	7.4	A	7.4	A	7.4	A
2	"LM" St & Driveway 2	8.4	A	8.7	A	8.7	A
3	"LM" St & Driveway 3	8.7	A	8.7	A	8.6	A
4	Driveway 4 & "LN" St	7.4	A	7.4	A	7.4	A
5	Driveway 5 & "LN" St	8.8	A	8.8	A	8.8	A

Table 8-2: Site Access Analysis – Year 2017

Intersection		2011 AP		2012 MP1		2012 MP2	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Driveway 1 & "VV" St	7.4	A	7.4	A	7.4	A
2	"LM" St & Driveway 2	8.6	A	9.0	A	9.0	A
3	"LM" St & Driveway 3	9.1	A	9.0	A	8.9	A
4	Driveway 4 & "LN" St	7.8	A	7.9	A	7.9	A
5	Driveway 5 & "LN" St	10.3	A	10.7	A	10.8	A

Table 8-3: Site Access Analysis – Year 2030

Intersection		2011 AP		2012 MP1		2012 MP2	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Driveway 1 & "VV" St	7.4	A	7.4	A	7.4	A
2	"LM" St & Driveway 2	9.1	A	9.0	A	9.0	A
3	"LM" St & Driveway 3	9.0	A	9.0	A	8.9	A
4	Driveway 4 & "LN" St	7.8	A	7.9	A	7.9	A
5	Driveway 5 & "LN" St	10.0	A	10.4	B	10.6	B

Table 8-4: Site Access Analysis – Post 2030

Intersection		2011 AP		2012 MP1		2012 MP2	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Driveway 1 & "VV" St	7.4	A	7.4	A	7.4	A
2	"LM" St & Driveway 2	9.0	A	9.0	A	9.0	A
3	"LM" St & Driveway 3	9.0	A	9.0	A	8.9	A
4	Driveway 4 & "LN" St	7.8	A	7.8	A	7.9	A
5	Driveway 5 & "LN" St	10.1	B	10.0	A	10.3	B

All access intersections are forecast to operate at an acceptable level of service during all analysis scenarios

8.1.1 Signal Warrant Analysis

A signal warrant analysis was conducted at all unsignalized study intersections per the Manual on Uniform Traffic Control Devices (MUTCD). Chapter 4 of the MUTCD includes criteria to determine if a traffic signal may be warranted at a stop-controlled or uncontrolled intersection. Traffic control may be needed if the criteria for one or more of the traffic signal warrants listed in Table 8-5 are met. If none of the warrants are satisfied, then a traffic signal should not be installed. However, the satisfaction of a traffic signal warrant or warrants does not in itself require the installation of traffic control signal. A signal should not be installed if it will seriously disrupt progressive traffic flow or if it will not improve overall safety or operation of the intersection.

Table 8-5: MUTCD Signal Warrants

Warrant		Intended Application	Based On
1	Eight-Hour Vehicular Volume	Where a large volume of intersecting traffic occurs throughout the day	Approach volumes over an 8-hour period
2	Four-Hour Vehicular Volume	Where both the major and minor streets experience high volumes during any 4 hours during the day	Volumes during the 4 highest hours
3	Peak Hour	Where the minor-street traffic suffers undue delay for a minimum of 1 hour of an average day	Peak hour approach volumes

Warrant		Intended Application	Based On
4	Pedestrian Volume	Where traffic is so heavy that pedestrians experience excessive delay when crossing the major street	Pedestrian and major street volumes, traffic gaps
5	School Crossing	Where the fact that school children cross the major street is the main reason to consider a traffic signal	Distance to nearest signal, volumes
6	Coordinated Signal System	To maintain progressive movement and properly platoon vehicles in a coordinated signal system	Distance between signals, platooning
7	Crash Experience	Where the severity and frequency of crashes are the principal reason to consider installing a signal	Crash history, 8-hour volumes, speed limit
8	Roadway Network	To encourage concentration and organization of traffic flow on a roadway network	Peak hour and forecast volumes

Source: Manual on Uniform Traffic Control (MUTCD) Chapter 4C

The peak hour signal warrant calculations are provided in the Appendix. Based on the forecast volumes, traffic signals are not identified as being warranted at any unsignalized study intersections and site access driveways for all analysis scenarios. However, all five access driveways should be monitored and re-evaluated when the Great Park Neighborhoods development occurs surrounding the project site. The signal warrants conducted in this study account for vehicle volumes, but not pedestrian volume. The intersections should be reevaluated for a signal warrant as part of the development and implementation of the roadways within the Great Park Neighborhoods.

8.1.2 Sight Distance Analysis

The driver of a vehicle approaching or departing from an intersection should have an unobstructed view of the intersection, including any traffic control devices, and sufficient lengths along the intersecting roadway to permit the driver to anticipate and avoid potential collisions. These unobstructed views form triangular areas known as sight triangles. Sight distance triangles for four-legged and three-legged intersections are shown in Exhibits 8.1 and 8.2.

Exhibit 8.1 - Sight Distance Triangles for 4-Legged Intersections

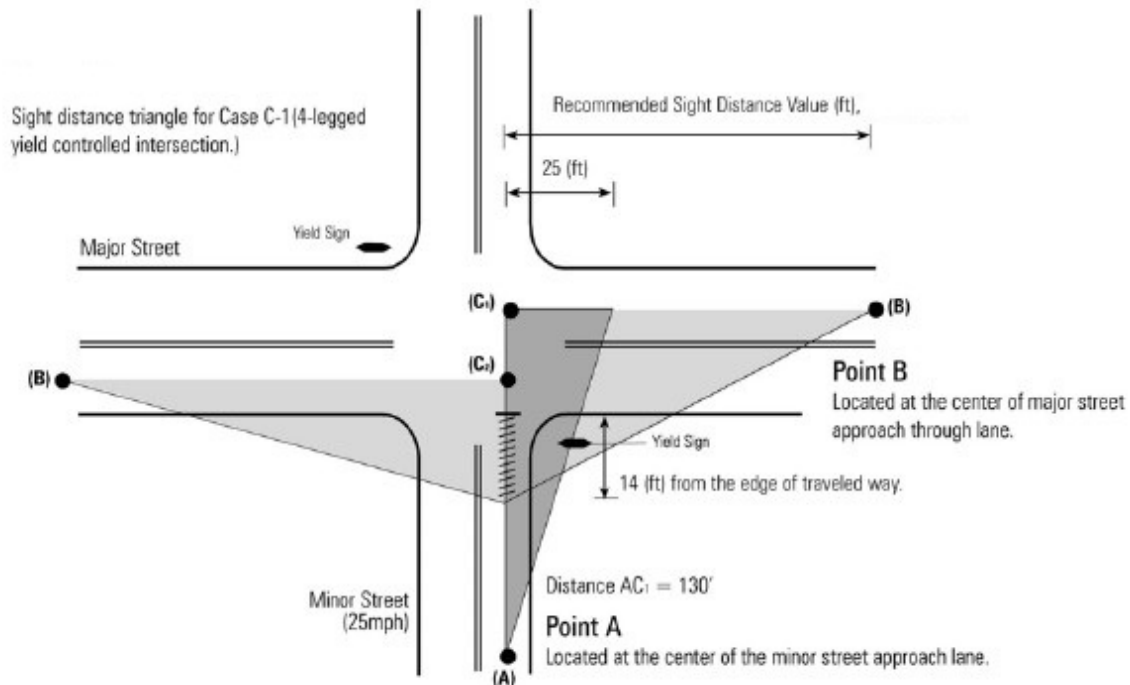
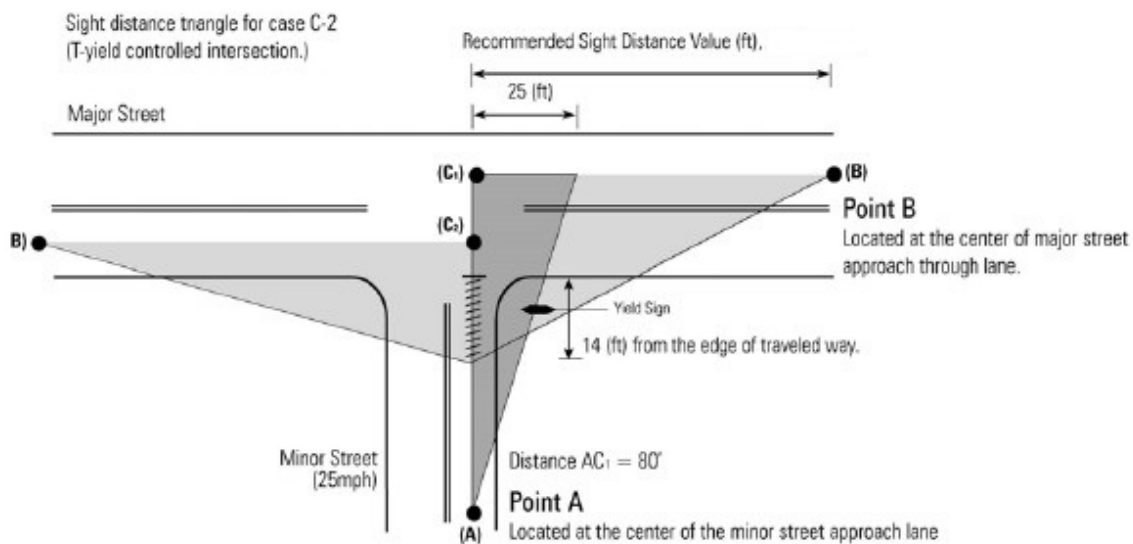


Exhibit 8.2 - Sight Distance Triangles for 3-Legged Intersections



Within this clear sight triangle, the objective is to remove or lower any object that obstructs the driver's view, if practical. Sight obstructions may include buildings, landscaping, fences, retaining walls, or the actual ground line.

Adequate sight distance should be provided for all access driveways and at intersection #613. The sight triangles for these locations may be identified in a subsequent design phase when construction level drawings of the project site and surrounding roadways are available.

Table 8-6 includes the minimum sight distances for a passenger car to complete a left turn from a major roadway listed in the City of Irvine Transportation Design Procedures.

Table 8-6 Sight Distance Minimum Standards – Project Intersections

Street	Design Speed (mph)	Min Sight Distance (feet)
"LN" St	25	225
"VV" St	25	225
"LM" St	25	225
"C" St	25	225

8.2 PARKING ANALYSIS

The K-8 School is proposing to provide 94 surface parking spaces per the most current site plan. The 94 parking spaces are split into two surface parking lots. Lot "A" provides 67 parking spaces and is accessible via Driveway 1 and Driveway 2. Lot "B" provides 27 parking spaces and is accessible via Driveway 4. The design of the surface parking spaces is still on-going, and the final number of parking spaces may change.

Forecast peak period parking generation for an elementary school of 1,000 students per the Institute of Transportation Engineers (ITE) Parking Generation Manual would be 170 parking spaces. Table 8-8 summarizes the ITE peak period forecast parking demand for the project.

Table 8-7 ITE Parking Generation – Elementary School

Use Classification	Unit	Quantity	ITE Rate (Spaces/Student)	Peak Parking Generation
Elementary School	Students	1,000	0.17	170

Source: Institute of Transportation Engineers Parking Generation Manual, 4th Edition

Based on the forecast parking generation and proposed parking supply, the proposed parking supply is 76 parking spaces short of ITE forecast parking generation for an elementary school. However, factors such as nearby residential, busing policies, class size, student/teacher ratio, and the availability of adequate parent pick-up/drop-off zones all affect actual parking demand. The proposed K-8 School is located within walking distance of residential neighborhoods and provides two pick-up/drop-off locations.

There are currently two other existing K-8 schools in the City of Irvine. These schools, the provided parking spaces, student enrollment, and parking ratios (spaces/student) are provided in Table 8-9.

Table 8-8 Similar Site Parking Ratios

School	# of Students	Parking Spaces	Rate (Spaces/Student)
Plaza Vista K-8 School	929	98	0.11
Vista Verde K-8 School	950	77	0.08
Proposed K-8 School	1,000	94	0.09

The proposed K-8 School is providing a parking ratio that is consistent with other existing K-8 schools in the City of Irvine. In discussions with IUSD, it was noted that parking at these two schools is sufficient to meet typical demand. Given this condition, the proposed 94-space parking supply is considered to be adequate.

8.3 PEDESTRIAN AND BICYCLE CIRCULATION

The preliminary site plan for the K-8 School shows a pedestrian pathway through the school, with connections to the two surface parking facilities. There are currently Class II bike lanes along Irvine Boulevard and Sand Canyon Avenue. It is recommended that the school provide bicycle lockers or racks on site, as well as signage to increase awareness and safety of bicyclists and pedestrians.

All access roads constructed as part of the Great Park Neighborhoods project are proposed to include sidewalks. In addition, bicycle facilities, including on-street lanes and off-street paths are proposed as part of the project. These project features will provide students with convenient pedestrian and bicycle routes to and from campus.

Additionally, the IUSD works with the City of Irvine and Irvine Police Department to develop Safe Routes to School plans for all schools in the district. A plan for the K-8 school will be developed by IUSD prior to school opening. No pedestrian or bicycle circulation issues are identified at this time, and no mitigation measures are required.

9. Congestion Management Program (CMP) Requirements

The Orange County Congestion Management Program (CMP) monitors the level of service at all designated CMP intersections in the County. Irvine Boulevard is designated as a CMP roadway within the study area. None of the study intersections identified in this report are designated CMP intersections.

10. Recommended Mitigation Measures

All intersections are forecast to operate at LOS "D" or better under with project conditions. No project impacts were identified.

11. Conclusion

The Irvine Unified School District plans to build a new elementary school facility on an 11.5-acre site on the southeast corner of the future “O” Street and “LN” Street, east of Jeffrey Road and Highway 133 and west of Alton Parkway. The project site is on a portion of the former Marine Corps Air Station El Toro (MCAS El Toro), in Planning Area 51, Orange County Great Park, of the City of Irvine General Plan.

The school is scheduled to open in the year 2016 with a capacity of 1,000 students. The K-8 school is expected to generate up to 1,710 vehicle trips on a typical weekday, with 420 trips (286 inbound and 134 outbound) during the AM peak hour.

The project is not expected to cause any significant impacts for all scenarios. As part of the traffic analysis, special analyses were conducted for site access, parking, pedestrian and bicycle circulation and with stadium.

- **Site Access** - The K-8 School site has five unsignalized access driveways located along “VV” Street, “LM” Street and “LN” Street. All access intersections are forecast to operate at an acceptable level of service during all analysis scenarios
- **Signal Warrant Analysis** - A signal warrant analysis was conducted at all unsignalized study intersections per the Manual on Uniform Traffic Control Devices (MUTCD). Based on the forecast volumes, traffic signals are not warranted at all unsignalized study intersections and site access driveways for all analysis scenarios. However, all access driveways should be reevaluated when the Great Park Neighborhoods development proceeds.
- **Sight Distance Analysis** – Adequate sight distance for access roadways leading up to the K-8 School should be maintained. It is recommended that a clear line of sight be maintained at all access driveways and the intersection of “C” Street and “LM” Street (#613).
- **Parking Analysis** – The K-8 School is proposing to provide 94 surface parking spaces per the most current site plan. The proposed ratio of parking spaces per student is consistent with the two other K-8 schools operated by IUSD in the City of Irvine. No parking demand impacts are anticipated.
- **Pedestrian and Bicycle Circulation** - The preliminary site plan for the K-8 School shows landscaped pedestrian pathways throughout the school with connections to the various surface parking facilities. There are currently Class II bike lanes along Irvine Boulevard, Alton Parkway, and Sand Canyon Avenue. Bicycle lanes may also be provided along other streets located adjacent to the school site as part of the Great Parks Neighborhoods project. It is recommended that the school provide bicycle lockers or racks on site, as well as signage to increase awareness and safety of bicyclists and pedestrians.

No study intersections are designated CMP intersections.

APPENDIX

APPENDIX

TRAFFIC COUNT DATA

CONDUCTED BY COUNTS UNLIMITED

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: Irvine Boulevard
 Contol: Signalized



ITAM: 301
 Date: 3/22/2012
 Day: Thursday

		Sand Canyon Avenue Southbound			Irvine Boulevard Westbound			Sand Canyon Avenue Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		41	111	33	62	185	28	24	76	29	28	109	33	759
7:15 AM		41	123	38	95	204	34	19	75	31	18	198	31	907
7:30 AM		53	165	29	83	228	17	26	56	44	17	254	42	1014
7:45 AM		78	169	31	101	220	31	18	80	48	25	220	58	1079
8:00 AM		93	164	26	81	181	18	44	65	51	22	190	51	986
8:15 AM		75	117	18	97	188	13	19	49	46	17	177	56	872
8:30 AM		67	126	16	76	146	15	19	41	53	17	178	49	803
8:45 AM		55	87	17	58	113	28	27	38	87	15	143	43	711
TOTAL VOLUMES:		503	1062	208	653	1465	184	196	480	389	159	1469	363	7131

AM Peak Hr Begins at: 715 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	265	621	124	360	833	100	107	276	174	82	862	182	3986

PEAK HR FACTOR:	0.892	0.918	0.870	0.899	0.924
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			Irvine Boulevard Westbound			Sand Canyon Avenue Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		16	56	24	36	215	32	72	76	53	17	87	33	717
4:15 PM		16	48	25	32	266	37	66	110	37	24	89	27	777
4:30 PM		23	55	23	57	246	32	68	105	77	16	120	28	850
4:45 PM		10	35	17	52	286	35	86	100	60	31	108	22	842
5:00 PM		16	56	25	61	292	50	73	128	70	36	126	27	960
5:15 PM		16	51	21	70	404	57	91	146	70	27	169	37	1159
5:30 PM		17	36	12	70	311	54	107	182	77	29	133	31	1059
5:45 PM		9	48	12	52	271	31	77	145	55	40	148	18	906
6:00 PM		13	44	14	70	223	44	46	114	54	25	111	29	787
6:15 PM		9	37	11	56	251	36	52	84	44	31	130	41	782
TOTAL VOLUMES:		145	466	184	556	2765	408	738	1190	597	276	1221	293	8839

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	58	191	70	253	1278	192	348	601	272	132	576	113	4084

PEAK HR FACTOR:	0.822	0.811	0.834	0.881	0.881
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: Irvine Boulevard
 Contol: Signalized



ITAM: 301
 Date: 3/27/2012
 Day: Tuesday

		Sand Canyon Avenue Southbound			Irvine Boulevard Westbound			Sand Canyon Avenue Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		60	140	50	70	209	53	23	90	26	33	112	35	901
7:15 AM		48	113	39	102	264	16	13	39	30	8	240	48	960
7:30 AM		69	160	20	95	231	14	37	44	73	30	248	58	1079
7:45 AM		43	146	34	136	240	28	17	73	43	34	237	61	1092
8:00 AM		113	158	23	54	152	7	55	62	40	22	186	47	919
8:15 AM		68	119	19	89	186	22	19	52	60	12	175	50	871
8:30 AM		65	129	26	83	131	27	25	45	47	15	164	39	796
8:45 AM		35	92	16	49	90	30	23	33	61	20	128	32	609
TOTAL VOLUMES:		501	1057	227	678	1503	197	212	438	380	174	1490	370	7227

AM Peak Hr Begins at: 715 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	273	577	116	387	887	65	122	218	186	94	911	214	4050

PEAK HR FACTOR:	0.821	0.829	0.838	0.907	0.927
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			Irvine Boulevard Westbound			Sand Canyon Avenue Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		22	71	12	48	204	36	84	83	65	25	101	16	767
4:15 PM		19	61	21	57	227	40	78	80	51	31	104	24	793
4:30 PM		13	55	11	34	259	53	65	85	71	32	109	21	808
4:45 PM		9	48	27	74	274	54	86	95	69	27	109	19	891
5:00 PM		18	69	15	53	310	66	75	81	79	40	163	32	1001
5:15 PM		19	64	24	81	347	57	72	131	76	29	120	26	1046
5:30 PM		18	54	16	62	286	56	99	124	68	46	144	22	995
5:45 PM		8	65	16	74	261	48	78	111	52	30	111	26	880
6:00 PM		15	56	14	45	226	43	44	115	58	34	146	20	816
6:15 PM		12	39	9	53	197	51	48	118	67	28	108	33	763
TOTAL VOLUMES:		153	582	165	581	2591	504	729	1023	656	322	1215	239	8760

PM Peak Hr Begins at: 445 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	64	235	82	270	1217	233	332	431	292	142	536	99	3933

PEAK HR FACTOR:	0.890	0.887	0.906	0.827	0.940
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: Trabuco Road
 Contol: Signalized



ITAM: 302
 Date: 3/20/2012
 Day: Tuesday

		Sand Canyon Avenue Southbound			Trabuco Road Westbound			Sand Canyon Avenue Northbound			Trabuco Road Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		1	227	24	0	1	0	15	136	3	4	0	26	437
7:15 AM		2	298	18	1	0	0	19	155	6	11	7	25	542
7:30 AM		5	379	40	6	1	3	17	118	5	14	1	39	628
7:45 AM		1	421	37	1	0	3	14	99	1	18	4	52	651
8:00 AM		6	362	20	1	1	1	13	98	2	17	0	63	584
8:15 AM		2	379	23	0	1	3	20	104	5	16	0	41	594
8:30 AM		1	392	23	0	1	2	12	120	5	13	2	44	615
8:45 AM		1	339	23	4	0	0	7	110	3	16	2	50	555
TOTAL VOLUMES:		19	2797	208	13	5	12	117	940	30	109	16	340	4606

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	14	1541	120	8	3	10	64	419	13	65	5	195	2457

PEAK HR FACTOR:	0.912	0.525	0.886	0.828	0.944
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			Trabuco Road Westbound			Sand Canyon Avenue Northbound			Trabuco Road Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		0	173	19	2	2	4	29	222	3	15	2	22	493
4:15 PM		1	110	15	4	3	3	21	236	2	18	1	20	434
4:30 PM		0	128	11	2	2	4	25	229	0	23	1	13	438
4:45 PM		2	116	23	4	0	1	30	292	1	23	0	18	510
5:00 PM		2	133	29	4	0	0	41	300	0	29	0	13	551
5:15 PM		0	136	16	1	0	3	44	363	0	32	2	13	610
5:30 PM		0	143	28	3	51	3	27	317	0	43	3	26	644
5:45 PM		3	133	14	6	0	4	33	370	0	31	0	22	616
6:00 PM		1	144	20	2	0	1	34	355	2	38	0	13	610
6:15 PM		0	111	16	0	0	0	28	321	0	28	0	14	518
TOTAL VOLUMES:		9	1327	191	28	58	23	312	3005	8	280	9	174	5424

PM Peak Hr Begins at: 515 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	4	556	78	12	51	11	138	1405	2	144	5	74	2480

PEAK HR FACTOR:	0.933	0.325	0.949	0.774	0.963
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: Trabuco Road
 Contol: Signalized



ITAM: 302
 Date: 3/21/2012
 Day: Wednesday

		Sand Canyon Avenue Southbound			Trabuco Road Westbound			Sand Canyon Avenue Northbound			Trabuco Road Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		2	244	17	0	0	0	19	171	1	8	1	21	484
7:15 AM		5	328	26	1	3	0	22	123	6	5	1	22	542
7:30 AM		1	380	38	0	1	0	12	94	0	11	2	40	579
7:45 AM		3	404	36	3	1	1	13	108	0	15	2	52	638
8:00 AM		2	344	42	1	0	1	13	108	3	21	0	45	580
8:15 AM		0	369	29	1	0	3	13	106	5	21	3	43	593
8:30 AM		1	374	27	4	0	0	17	95	1	19	3	49	590
8:45 AM		1	347	19	1	1	0	19	112	1	16	2	55	574
TOTAL VOLUMES:		15	2790	234	11	6	5	128	917	17	116	14	327	4580

AM Peak Hr Begins at: 745 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	6	1491	134	9	1	5	56	417	9	76	8	189	2401

PEAK HR FACTOR:	0.920	0.750	0.972	0.961	0.941
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			Trabuco Road Westbound			Sand Canyon Avenue Northbound			Trabuco Road Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		0	115	15	0	0	4	32	197	26	39	0	11	439
4:15 PM		0	110	21	1	0	3	40	221	2	18	1	21	438
4:30 PM		0	118	12	0	1	3	29	255	0	22	0	16	456
4:45 PM		1	122	32	2	0	2	36	296	0	27	1	15	534
5:00 PM		2	162	23	1	0	2	40	315	1	36	2	24	608
5:15 PM		3	126	26	3	3	2	50	364	1	28	1	12	619
5:30 PM		4	133	26	4	2	4	32	352	0	42	0	19	618
5:45 PM		2	124	27	2	1	5	43	341	1	22	0	12	580
6:00 PM		2	124	29	3	1	8	39	339	0	35	1	19	600
6:15 PM		2	100	25	1	1	2	54	320	0	30	0	18	553
TOTAL VOLUMES:		16	1234	236	17	9	35	395	3000	31	299	6	167	5445

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	11	545	102	10	6	13	165	1372	3	128	3	67	2425

PEAK HR FACTOR:	0.880	0.725	0.928	0.798	0.979
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: I-5 NB Ramps
 Contol: Signalized



ITAM: 303
 Date: 3/20/2012
 Day: Tuesday

		Sand Canyon Avenue Southbound			OCTA Bus Yard Westbound			Sand Canyon Avenue Northbound			I-5 NB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		0	192	62	2	3	1	37	106	2	48	3	52	508
7:15 AM		0	245	76	0	3	0	32	124	1	43	2	66	592
7:30 AM		2	371	78	0	0	0	44	110	4	31	6	74	720
7:45 AM		0	301	86	0	1	0	40	75	1	27	5	121	657
8:00 AM		0	373	73	1	0	0	37	77	2	27	4	76	670
8:15 AM		1	372	84	0	1	0	39	97	2	31	8	69	704
8:30 AM		2	370	60	3	1	0	51	117	3	33	2	88	730
8:45 AM		0	360	73	2	0	0	56	94	5	30	3	71	694
TOTAL VOLUMES:		5	2584	592	8	9	1	336	800	20	270	33	617	5275

AM Peak Hr Begins at: 800 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	3	1475	290	6	2	0	183	385	12	121	17	304	2798

PEAK HR FACTOR:	0.967	0.500	0.848	0.898	0.958
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			OCTA Bus Yard Westbound			Sand Canyon Avenue Northbound			I-5 NB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		2	152	56	5	2	0	156	168	1	77	2	36	657
4:15 PM		3	112	32	2	2	0	120	186	5	64	0	37	563
4:30 PM		1	111	34	6	1	0	159	202	0	59	3	28	604
4:45 PM		0	110	36	3	0	0	154	215	2	92	4	35	651
5:00 PM		1	108	37	1	0	0	184	243	2	97	3	35	711
5:15 PM		0	115	36	0	0	0	164	294	7	120	1	38	775
5:30 PM		0	136	34	0	0	0	146	266	8	93	3	39	725
5:45 PM		1	129	34	4	0	1	115	293	2	88	7	29	703
6:00 PM		0	126	33	2	0	0	140	296	5	105	1	27	735
6:15 PM		2	101	24	0	0	0	126	255	0	88	2	28	626
TOTAL VOLUMES:		10	1200	356	23	5	1	1464	2418	32	883	26	332	6750

PM Peak Hr Begins at: 515 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	1	506	137	6	0	1	565	1149	22	406	12	133	2938

PEAK HR FACTOR:	0.947	0.350	0.933	0.866	0.948
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: I-5 NB Ramps
 Contol: Signalized



ITAM: 303
 Date: 3/21/2012
 Day: Wednesday

		Sand Canyon Avenue Southbound			OCTA Bus Yard Westbound			Sand Canyon Avenue Northbound			I-5 NB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM 7:15 AM 7:30 AM 7:45 AM 8:00 AM 8:15 AM 8:30 AM 8:45 AM	7:00 AM	0	200	89	1	1	0	45	130	4	39	4	59	572
	7:15 AM	0	246	87	0	2	0	29	117	1	44	5	63	594
	7:30 AM	0	351	64	1	0	0	37	81	2	29	3	71	639
	7:45 AM	0	357	73	2	1	0	38	85	2	31	7	104	700
	8:00 AM	1	352	66	3	5	0	38	93	3	29	2	88	680
	8:15 AM	0	352	73	1	0	0	22	88	3	46	6	83	674
	8:30 AM	0	346	76	5	0	1	44	82	5	27	3	88	677
	8:45 AM	0	362	76	1	0	0	48	101	1	33	4	88	714
TOTAL VOLUMES:		1	2566	604	14	9	1	301	777	21	278	34	644	5250

AM Peak Hr Begins at: 800 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	1	1412	291	10	5	1	152	364	12	135	15	347	2745

PEAK HR FACTOR:	0.973	0.500	0.880	0.920	0.961
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			OCTA Bus Yard Westbound			Sand Canyon Avenue Northbound			I-5 NB Ramps Eastbound			
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM 6:00 PM 6:15 PM	4:00 PM	0	114	48	5	0	0	162	183	2	56	0	56	626
	4:15 PM	0	99	33	6	3	0	193	199	0	61	1	42	637
	4:30 PM	0	91	31	3	3	1	165	216	0	72	4	23	609
	4:45 PM	0	123	42	3	0	0	185	242	3	74	3	36	711
	5:00 PM	0	128	58	1	0	0	182	252	1	108	1	38	769
	5:15 PM	0	106	35	0	0	0	157	306	11	113	3	34	765
	5:30 PM	0	128	26	1	1	0	123	270	5	109	0	33	696
	5:45 PM	0	121	30	2	0	1	123	274	4	107	4	29	695
	6:00 PM	2	110	26	1	0	0	125	269	2	91	4	31	661
6:15 PM	0	107	23	0	0	0	108	275	1	98	6	19	637	
TOTAL VOLUMES:		2	1127	352	22	7	2	1523	2486	29	889	26	341	6806

PM Peak Hr Begins at: 445 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	485	161	5	1	0	647	1070	20	404	7	141	2941

PEAK HR FACTOR:	0.868	0.500	0.916	0.920	0.956
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: I-5 SB Ramps
 Contol: Signalized



ITAM: 305
 Date: 3/22/2012
 Day: Thursday

		Sand Canyon Avenue Southbound			I-5 SB Ramps Westbound			Sand Canyon Avenue Northbound			I-5 SB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		51	185	0	0	0	0	0	87	12	71	1	173	580
7:15 AM		73	236	0	0	0	0	0	83	19	73	0	187	671
7:30 AM		101	303	0	0	0	0	0	77	24	48	0	211	764
7:45 AM		84	365	0	0	0	0	0	97	22	70	0	204	842
8:00 AM		130	343	0	0	0	0	0	94	13	58	1	170	809
8:15 AM		111	291	0	0	0	0	0	93	16	64	0	199	774
8:30 AM		120	322	0	0	0	0	0	100	27	71	0	194	834
8:45 AM		109	283	0	0	0	0	0	128	28	74	2	178	802
TOTAL VOLUMES:		779	2328	0	0	0	0	0	759	161	529	4	1516	6076

AM Peak Hr Begins at: 745 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	445	1321	0	0	0	0	0	384	78	263	1	767	3259

PEAK HR FACTOR:	0.933	0.000	0.909	0.941	0.968
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			I-5 SB Ramps Westbound			Sand Canyon Avenue Northbound			I-5 SB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		77	132	0	0	0	0	0	280	77	64	2	56	688
4:15 PM		56	123	0	0	0	0	0	275	49	85	3	62	653
4:30 PM		71	147	0	0	0	0	0	280	63	60	0	64	685
4:45 PM		57	159	0	0	0	0	0	271	59	69	0	59	674
5:00 PM		42	118	0	0	0	0	0	392	73	89	5	69	788
5:15 PM		56	142	0	0	0	0	0	325	83	103	0	65	774
5:30 PM		59	144	0	0	0	0	0	330	67	113	0	80	793
5:45 PM		50	128	0	0	0	0	0	273	65	99	0	68	683
6:00 PM		58	119	0	0	0	0	0	298	53	89	0	66	683
6:15 PM		45	116	0	0	0	0	0	308	53	87	0	57	666
TOTAL VOLUMES:		571	1328	0	0	0	0	0	3032	642	858	10	646	7087

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	207	532	0	0	0	0	0	1320	288	404	5	282	3038

PEAK HR FACTOR:	0.910	0.000	0.865	0.895	0.958
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: Sand Canyon Avenue
 E/W: I-5 SB Ramps
 Contol: Signalized



ITAM: 305
 Date: 3/27/2012
 Day: Tuesday

		Sand Canyon Avenue Southbound			I-5 SB Ramps Westbound			Sand Canyon Avenue Northbound			I-5 SB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		75	163	0	0	0	0	0	87	19	77	0	201	622
7:15 AM		73	239	0	0	0	0	0	83	20	64	0	192	671
7:30 AM		91	310	0	0	0	0	0	89	28	60	0	194	772
7:45 AM		108	354	0	0	0	0	0	94	16	57	1	223	853
8:00 AM		122	306	0	0	0	0	0	79	23	64	1	212	807
8:15 AM		116	311	0	0	0	0	0	101	19	55	0	215	817
8:30 AM		107	251	0	0	0	0	0	125	18	51	2	201	755
8:45 AM		86	246	0	0	0	0	0	91	11	59	0	184	677
TOTAL VOLUMES:		778	2180	0	0	0	0	0	749	154	487	4	1622	5974

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	437	1281	0	0	0	0	0	363	86	236	2	844	3249

PEAK HR FACTOR:	0.930	0.000	0.935	0.963	0.952
-----------------	-------	-------	-------	-------	-------

		Sand Canyon Avenue Southbound			I-5 SB Ramps Westbound			Sand Canyon Avenue Northbound			I-5 SB Ramps Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		71	91	0	0	0	0	0	291	59	55	0	73	640
4:15 PM		51	88	0	0	0	0	0	271	46	67	0	51	574
4:30 PM		49	106	0	0	0	0	0	280	59	71	0	69	634
4:45 PM		37	114	0	0	0	0	0	275	74	79	0	56	635
5:00 PM		41	117	0	0	0	0	0	319	66	80	0	73	696
5:15 PM		60	125	0	0	0	0	0	337	59	100	0	83	764
5:30 PM		44	94	0	0	0	0	0	312	69	102	0	71	692
5:45 PM		61	113	0	0	0	0	0	319	41	101	0	67	702
6:00 PM		62	125	0	0	0	0	0	328	60	90	0	69	734
6:15 PM		47	110	0	0	0	0	0	326	46	88	0	68	685
TOTAL VOLUMES:		523	1083	0	0	0	0	0	3058	579	833	0	680	6756

PM Peak Hr Begins at: 515 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	227	457	0	0	0	0	0	1296	229	393	0	290	2892

PEAK HR FACTOR:	0.914	0.000	0.963	0.933	0.946
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Southbound
 E/W: Irvine Boulevard
 Control: Signalized



ITAM: 316
 Date: 1/31/2012
 Day: Tuesday

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		36	0	64	22	188	0	0	0	0	0	130	17	457
7:15 AM		31	0	88	19	261	0	0	0	0	0	190	37	626
7:30 AM		41	0	49	29	244	0	0	0	0	0	263	45	671
7:45 AM		53	0	106	21	231	0	0	0	0	0	302	39	752
8:00 AM		49	0	88	25	214	0	0	0	0	0	299	55	730
8:15 AM		52	0	74	20	228	0	0	0	0	0	281	60	715
8:30 AM		34	0	55	14	193	0	0	0	0	0	248	37	581
8:45 AM		61	0	51	17	168	0	0	0	0	0	267	33	597
TOTAL VOLUMES:		357	0	575	167	1727	0	0	0	0	0	1980	323	5129

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	195	0	317	95	917	0	0	0	0	0	1145	199	2868

PEAK HR FACTOR:	0.805	0.927	0.000	0.949	0.953
-----------------	-------	-------	-------	-------	-------

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		4	0	17	10	275	0	0	0	0	0	157	15	478
4:15 PM		5	0	23	9	272	0	0	0	0	0	155	11	475
4:30 PM		7	0	37	9	312	0	0	0	0	0	158	8	531
4:45 PM		4	0	29	9	339	0	0	0	0	0	164	12	557
5:00 PM		4	0	38	12	448	0	0	0	0	0	231	18	751
5:15 PM		10	0	30	15	495	0	0	0	0	0	262	13	825
5:30 PM		7	0	40	11	475	0	0	0	0	0	206	23	762
5:45 PM		4	0	44	12	369	0	0	0	0	0	210	16	655
6:00 PM		5	0	36	16	310	0	0	0	0	0	206	9	582
6:15 PM		6	0	32	13	282	0	0	0	0	0	194	12	539
TOTAL VOLUMES:		56	0	326	116	3577	0	0	0	0	0	1943	137	6155

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	25	0	152	50	1787	0	0	0	0	0	909	70	2993

PEAK HR FACTOR:	0.922	0.900	0.000	0.890	0.907
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Southbound
 E/W: Irvine Boulevard
 Contol: Signalized



ITAM: 316
 Date: 2/8/2012
 Day: Wednesday

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		40	0	57	18	185	0	0	0	0	0	168	20	488
7:15 AM		49	0	81	24	251	0	0	0	0	0	201	34	640
7:30 AM		43	0	82	22	223	0	0	0	0	0	276	53	699
7:45 AM		69	0	89	13	216	0	0	0	0	0	314	37	738
8:00 AM		53	0	68	27	193	0	0	0	0	0	336	51	728
8:15 AM		47	0	82	17	213	0	0	0	0	0	290	38	687
8:30 AM		42	0	40	21	201	0	0	0	0	0	261	41	606
8:45 AM		36	0	48	20	172	0	0	0	0	0	289	36	601
TOTAL VOLUMES:		379	0	547	162	1654	0	0	0	0	0	2135	310	5187

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	212	0	321	79	845	0	0	0	0	0	1216	179	2852

PEAK HR FACTOR:	0.843	0.943	0.000	0.901	0.966
-----------------	-------	-------	-------	-------	-------

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		3	0	18	7	312	0	0	0	0	0	174	16	530
4:15 PM		15	0	26	8	283	0	0	0	0	0	184	12	528
4:30 PM		4	0	22	7	339	0	0	0	0	0	168	16	556
4:45 PM		5	0	25	5	338	0	0	0	0	0	208	14	595
5:00 PM		4	0	34	21	295	0	0	0	0	0	224	13	591
5:15 PM		5	0	46	11	434	0	0	0	0	0	256	17	769
5:30 PM		5	0	28	16	401	0	0	0	0	0	233	15	698
5:45 PM		5	0	39	19	396	0	0	0	0	0	216	19	694
6:00 PM		8	0	30	10	432	0	0	0	0	0	199	12	691
6:15 PM		4	0	31	7	296	0	0	0	0	0	168	17	523
TOTAL VOLUMES:		58	0	299	111	3526	0	0	0	0	0	2030	151	6175

PM Peak Hr Begins at: 515 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	23	0	143	56	1663	0	0	0	0	0	904	63	2852

PEAK HR FACTOR:	0.814	0.966	0.000	0.886	0.927
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Southbound
 E/W: Irvine Boulevard
 Contol: Signalized



ITAM: 316
 Date: 2/2/2012
 Day: Thursday

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		38	0	61	17	172	0	0	0	0	0	165	25	478
7:15 AM		50	0	92	19	248	0	0	0	0	0	164	31	604
7:30 AM		34	3	67	18	238	0	0	0	0	0	263	52	675
7:45 AM		58	0	79	26	271	0	0	0	0	0	313	44	791
8:00 AM		58	0	85	18	222	0	0	0	0	0	310	30	723
8:15 AM		55	0	77	24	211	0	0	0	0	0	314	48	729
8:30 AM		46	0	59	16	193	0	0	0	0	0	265	32	611
8:45 AM		47	0	47	27	166	0	0	0	0	0	284	33	604
TOTAL VOLUMES:		386	3	567	165	1721	0	0	0	0	0	2078	295	5215

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	205	3	308	86	942	0	0	0	0	0	1200	174	2918

PEAK HR FACTOR:	0.902	0.865	0.000	0.949	0.922
-----------------	-------	-------	-------	-------	-------

		SR-133 Southbound Southbound			Irvine Boulevard Westbound			SR-133 Southbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		7	0	22	7	280	0	0	0	0	0	185	10	511
4:15 PM		9	0	27	12	290	0	0	0	0	0	153	17	508
4:30 PM		3	0	17	5	367	0	0	0	0	0	162	16	570
4:45 PM		6	0	26	12	365	0	0	0	0	0	175	14	598
5:00 PM		6	0	34	7	419	0	0	0	0	0	234	14	714
5:15 PM		6	0	36	19	502	0	0	0	0	0	218	15	796
5:30 PM		8	0	33	13	437	0	0	0	0	0	205	14	710
5:45 PM		4	0	31	5	414	0	0	0	0	0	188	22	664
6:00 PM		7	0	30	11	342	0	0	0	0	0	184	11	585
6:15 PM		4	0	25	9	323	0	0	0	0	0	187	15	563
TOTAL VOLUMES:		60	0	281	100	3739	0	0	0	0	0	1891	148	6219

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	24	0	134	44	1772	0	0	0	0	0	845	65	2884

PEAK HR FACTOR:	0.940	0.871	0.000	0.917	0.906
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Northbound
 E/W: Irvine Boulevard
 Control: Signalized



ITAM: 317
 Date: 1/31/2012
 Day: Tuesday

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		0	0	0	0	184	5	12	0	10	0	176	14	401
7:15 AM		0	0	0	0	258	9	31	0	18	0	193	21	530
7:30 AM		0	0	0	0	263	6	17	0	14	0	323	18	641
7:45 AM		0	0	0	0	250	9	11	0	10	0	300	30	610
8:00 AM		0	0	0	0	218	9	11	0	20	0	333	18	609
8:15 AM		0	0	0	0	226	9	16	0	14	0	338	21	624
8:30 AM		0	0	0	0	185	7	11	0	11	0	247	17	478
8:45 AM		0	0	0	0	153	3	30	1	14	0	300	27	528
TOTAL VOLUMES:		0	0	0	0	1737	57	139	1	111	0	2210	166	4421

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	957	33	55	0	58	0	1294	87	2484

PEAK HR FACTOR:	0.000	0.920	0.911	0.962	0.969
-----------------	-------	-------	-------	-------	-------

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		0	0	0	0	245	37	18	0	8	0	123	46	477
4:15 PM		0	0	0	0	267	28	15	0	12	0	125	36	483
4:30 PM		0	0	0	0	299	26	15	0	8	0	148	40	536
4:45 PM		0	0	0	0	325	32	28	0	13	0	150	43	591
5:00 PM		0	0	0	0	442	44	30	0	14	0	182	42	754
5:15 PM		0	0	0	0	499	61	29	0	27	0	222	40	878
5:30 PM		0	0	0	0	439	25	27	0	15	0	174	46	726
5:45 PM		0	0	0	0	354	39	36	0	6	0	180	36	651
6:00 PM		0	0	0	0	290	18	25	0	14	0	184	46	577
6:15 PM		0	0	0	0	285	35	21	0	12	0	133	41	527
TOTAL VOLUMES:		0	0	0	0	3445	345	244	0	129	0	1621	416	6200

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	1734	169	122	0	62	0	758	164	3009

PEAK HR FACTOR:	0.000	0.850	0.821	0.880	0.857
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Northbound
 E/W: Irvine Boulevard
 Control: Signalized



ITAM: 317
 Date: 2/8/2012
 Day: Wednesday

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		0	0	0	0	190	4	0	21	15	0	177	24	431
7:15 AM		0	0	0	0	272	10	0	25	15	0	213	29	564
7:30 AM		0	0	0	0	246	7	0	18	11	0	269	31	582
7:45 AM		0	0	0	0	226	9	0	12	18	0	378	29	672
8:00 AM		0	0	0	0	218	7	0	13	14	0	325	30	607
8:15 AM		0	0	0	0	235	12	0	10	14	0	309	19	599
8:30 AM		0	0	0	0	211	8	0	6	19	0	266	26	536
8:45 AM		0	0	0	0	181	10	0	9	17	0	305	39	561
TOTAL VOLUMES:		0	0	0	0	1779	67	0	114	123	0	2242	227	4552

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	925	35	0	53	57	0	1281	109	2460

PEAK HR FACTOR:	0.000	0.949	0.917	0.854	0.915
-----------------	-------	-------	-------	-------	-------

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		0	0	0	0	282	37	38	0	3	0	115	62	537
4:15 PM		0	0	0	0	272	37	18	0	10	0	139	49	525
4:30 PM		0	0	0	0	324	40	26	0	7	0	136	54	587
4:45 PM		0	0	0	0	327	41	15	0	8	0	162	36	589
5:00 PM		0	0	0	0	353	50	13	0	19	0	177	53	665
5:15 PM		0	0	0	0	460	46	31	0	20	0	195	50	802
5:30 PM		0	0	0	0	391	51	40	0	20	0	183	49	734
5:45 PM		0	0	0	0	340	99	36	0	15	0	164	53	707
6:00 PM		0	0	0	0	377	32	29	0	18	0	166	41	663
6:15 PM		0	0	0	0	283	23	22	0	16	0	134	33	511
TOTAL VOLUMES:		0	0	0	0	3409	456	268	0	136	0	1571	480	6320

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	1544	246	120	0	74	0	719	205	2908

PEAK HR FACTOR:	0.000	0.884	0.808	0.943	0.906
-----------------	-------	-------	-------	-------	-------

Location: Irvine
 N/S: SR-133 Northbound
 E/W: Irvine Boulevard
 Control: Signalized



ITAM: 317
 Date: 2/2/2012
 Day: Thursday

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
7:00 AM		0	0	0	0	173	5	15	0	16	0	173	24	406
7:15 AM		0	0	0	0	246	6	23	0	9	0	183	24	491
7:30 AM		0	0	0	0	253	10	11	0	14	0	257	34	579
7:45 AM		0	0	0	0	278	5	10	0	17	0	341	34	685
8:00 AM		0	0	0	0	221	13	14	0	19	0	336	23	626
8:15 AM		0	0	0	0	231	9	12	0	9	0	332	31	624
8:30 AM		0	0	0	0	188	12	12	0	14	0	286	27	539
8:45 AM		0	0	0	0	171	7	14	0	14	0	279	25	510
TOTAL VOLUMES:		0	0	0	0	1761	67	111	0	112	0	2187	222	4460

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	983	37	47	0	59	0	1266	122	2514

PEAK HR FACTOR:	0.000	0.901	0.803	0.925	0.918
-----------------	-------	-------	-------	-------	-------

		SR-133 Northbound Southbound			Irvine Boulevard Westbound			SR-133 Northbound Northbound			Irvine Boulevard Eastbound			TOTAL
		SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
4:00 PM		0	0	0	0	272	38	18	0	9	0	137	55	529
4:15 PM		0	0	0	0	289	41	23	0	13	0	106	46	518
4:30 PM		0	0	0	0	349	31	20	0	7	0	132	49	588
4:45 PM		0	0	0	0	345	27	31	0	13	0	119	47	582
5:00 PM		0	0	0	0	411	52	26	0	16	0	170	70	745
5:15 PM		0	0	0	0	487	59	31	0	12	0	173	48	810
5:30 PM		0	0	0	0	417	31	27	0	11	0	166	45	697
5:45 PM		0	0	0	0	376	36	35	0	7	0	144	41	639
6:00 PM		0	0	0	0	313	39	36	0	14	0	152	32	586
6:15 PM		0	0	0	0	300	28	26	0	10	0	144	36	544
TOTAL VOLUMES:		0	0	0	0	3559	382	273	0	112	0	1443	469	6238

PM Peak Hr Begins at: 500 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
PEAK VOLUMES:	0	0	0	0	1691	178	119	0	46	0	653	204	2891

PEAK HR FACTOR:	0.000	0.856	0.959	0.893	0.892
-----------------	-------	-------	-------	-------	-------

City of Irvine
N/S: Modjeska
E/W: Irvine Boulevard
Weather: Clear

File Name : 572_IRVMOIRAM
Site Code : 12104083
Start Date : 3/21/2012
Page No : 1

Groups Printed- Total Volume

	Modjeska Southbound			Irvine Boulevard Westbound			Irvine Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	11	17	28	147	1	148	1	180	181	357
07:15 AM	16	31	47	219	1	220	1	204	205	472
07:30 AM	17	42	59	257	1	258	2	267	269	586
07:45 AM	28	31	59	183	0	183	4	322	326	568
Total	72	121	193	806	3	809	8	973	981	1983
08:00 AM	27	27	54	234	7	241	11	294	305	600
08:15 AM	27	21	48	203	2	205	5	330	335	588
08:30 AM	24	19	43	153	5	158	6	281	287	488
08:45 AM	31	22	53	146	4	150	2	289	291	494
Total	109	89	198	736	18	754	24	1194	1218	2170
Grand Total	181	210	391	1542	21	1563	32	2167	2199	4153
Apprch %	46.3	53.7		98.7	1.3		1.5	98.5		
Total %	4.4	5.1	9.4	37.1	0.5	37.6	0.8	52.2	52.9	

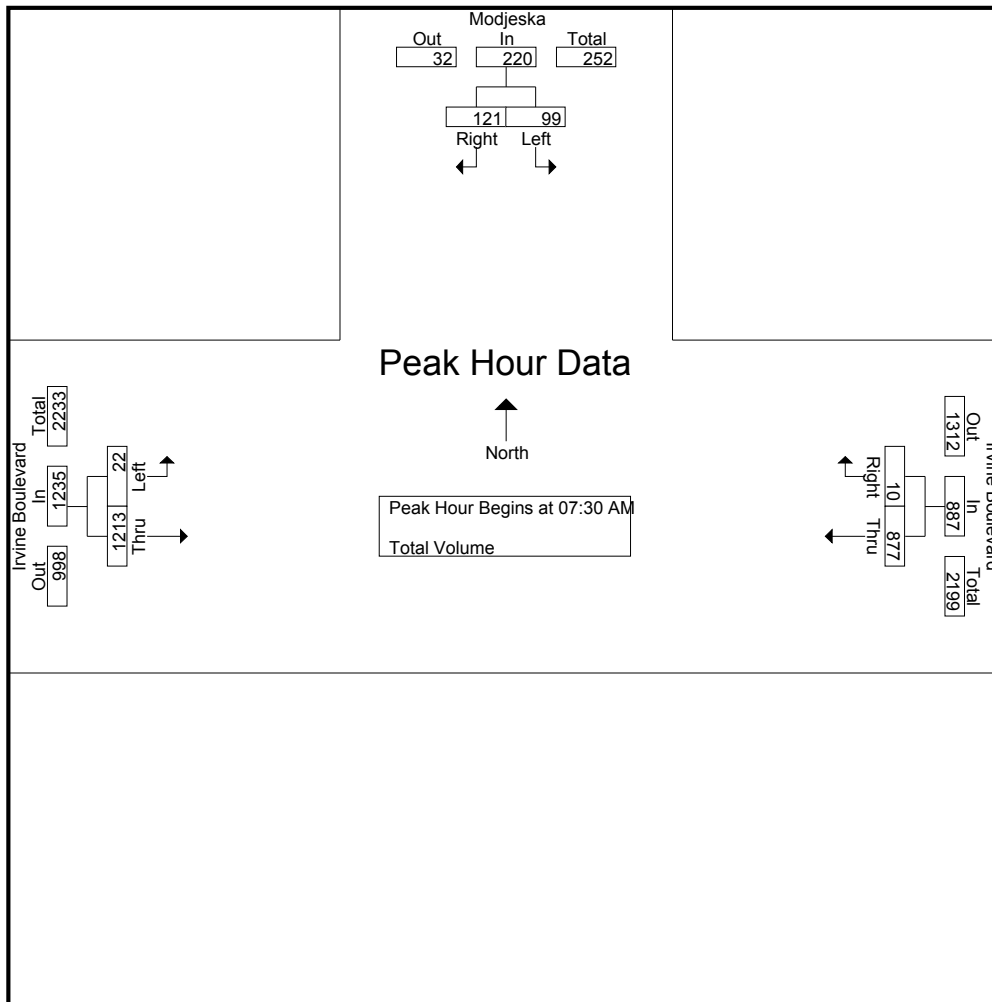
	Modjeska Southbound			Irvine Boulevard Westbound			Irvine Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:30 AM	17	42	59	257	1	258	2	267	269	586
07:45 AM	28	31	59	183	0	183	4	322	326	568
08:00 AM	27	27	54	234	7	241	11	294	305	600
08:15 AM	27	21	48	203	2	205	5	330	335	588
Total Volume	99	121	220	877	10	887	22	1213	1235	2342
% App. Total	45	55		98.9	1.1		1.8	98.2		
PHF	.884	.720	.932	.853	.357	.859	.500	.919	.922	.976

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

City of Irvine
N/S: Modjeska
E/W: Irvine Boulevard
Weather: Clear

File Name : 572_IRVMOIRAM
Site Code : 12104083
Start Date : 3/21/2012
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:45 AM		
+0 mins.	17	42	59	219	1	220	4	322	326
+15 mins.	28	31	59	257	1	258	11	294	305
+30 mins.	27	27	54	183	0	183	5	330	335
+45 mins.	27	21	48	234	7	241	6	281	287
Total Volume	99	121	220	893	9	902	26	1227	1253
% App. Total	45	55		99	1		2.1	97.9	
PHF	.884	.720	.932	.869	.321	.874	.591	.930	.935

City of Irvine
N/S: Modjeska
E/W: Irvine Boulevard
Weather: Clear

File Name : 572_IRVMOIRPM
Site Code : 12104083
Start Date : 3/21/2012
Page No : 1

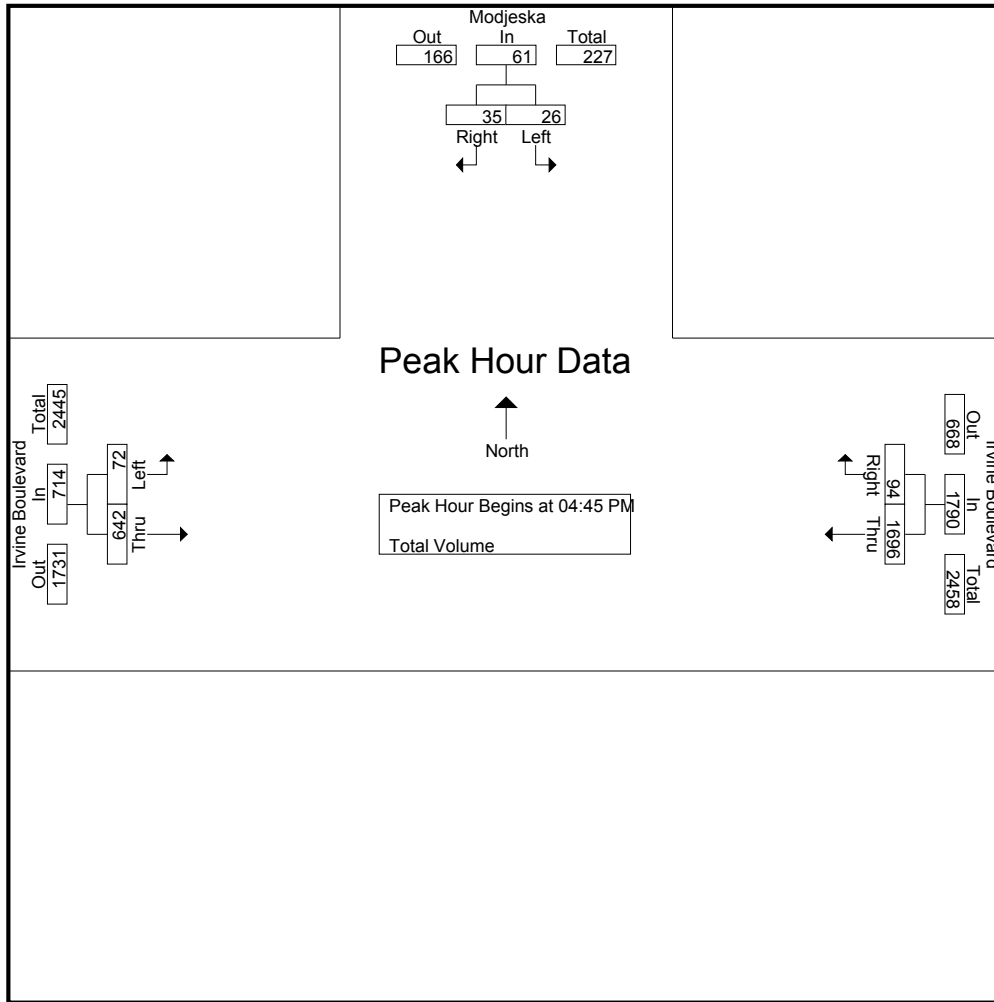
Groups Printed- Total Volume

	Modjeska Southbound			Irvine Boulevard Westbound			Irvine Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	4	3	7	321	9	330	8	136	144	481
04:15 PM	6	13	19	357	14	371	13	127	140	530
04:30 PM	4	7	11	345	15	360	10	118	128	499
04:45 PM	5	8	13	448	14	462	13	141	154	629
Total	19	31	50	1471	52	1523	44	522	566	2139
05:00 PM	10	8	18	504	32	536	22	168	190	744
05:15 PM	8	10	18	394	26	420	19	192	211	649
05:30 PM	3	9	12	350	22	372	18	141	159	543
05:45 PM	5	5	10	303	19	322	24	152	176	508
Total	26	32	58	1551	99	1650	83	653	736	2444
Grand Total	45	63	108	3022	151	3173	127	1175	1302	4583
Apprch %	41.7	58.3		95.2	4.8		9.8	90.2		
Total %	1	1.4	2.4	65.9	3.3	69.2	2.8	25.6	28.4	

	Modjeska Southbound			Irvine Boulevard Westbound			Irvine Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	5	8	13	448	14	462	13	141	154	629
05:00 PM	10	8	18	504	32	536	22	168	190	744
05:15 PM	8	10	18	394	26	420	19	192	211	649
05:30 PM	3	9	12	350	22	372	18	141	159	543
Total Volume	26	35	61	1696	94	1790	72	642	714	2565
% App. Total	42.6	57.4		94.7	5.3		10.1	89.9		
PHF	.650	.875	.847	.841	.734	.835	.818	.836	.846	.862

City of Irvine
N/S: Modjeska
E/W: Irvine Boulevard
Weather: Clear

File Name : 572_IRVMOIRPM
Site Code : 12104083
Start Date : 3/21/2012
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:45 PM			05:00 PM		
+0 mins.	6	13	19	448	14	462	22	168	190
+15 mins.	4	7	11	504	32	536	19	192	211
+30 mins.	5	8	13	394	26	420	18	141	159
+45 mins.	10	8	18	350	22	372	24	152	176
Total Volume	25	36	61	1696	94	1790	83	653	736
% App. Total	41	59		94.7	5.3		11.3	88.7	
PHF	.625	.692	.803	.841	.734	.835	.865	.850	.872

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY YEAR 2015 – WITH 2011 APPROVED PROJECT

Adt Refinement Summary

Scenario: YEAR 2015 Pend GPN 11
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2015
 Existing Validation Year: 2008
 Future Analysis Year: 2015

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Smooth Raw Growth	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	9,884	23,792	Ratio	141%	141%	-100%	141%	13,197	22,600
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	9,570	25,955	Increment	134%	134%	-100%	134%	16,385	28,700
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	17,108	39,066	Ratio	128%	128%	-100%	128%	14,713	26,200
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	18,048	46,446	Increment	139%	139%	-100%	139%	28,398	48,900
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	18,622	54,074	Increment	173%	173%	-100%	173%	35,452	55,900
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	32,738	61,963	Ratio	89%	89%	-100%	89%	20,815	44,100
511	Irvine Bl. e/o Sand Canyon. Av.	16,308	20,151	37,665	Ratio	87%	87%	-100%	87%	14,174	30,500
512	Irvine Bl. e/o SR-133 NB Ramps	16,308	20,277	44,515	Ratio	120%	120%	-100%	120%	19,494	35,800
567	Trabuco Rd. w/o SR-133 SB Ramps		0	17,150	Increment	0%	0%	-100%	0%	0	17,200
603	Marine Wy. e/o Sand Canyon. Av.	4,387	0	9,116	Increment	208%	208%	-100%	208%	9,116	13,500
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	25,081	58,811	Ratio	134%	134%	-100%	134%	31,027	54,100
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,195	33,977	Ratio	77%	77%	-100%	77%	14,369	33,000
928	Irvine Bl. w/o SR-133 SB Ramps	16,800	20,151	37,665	Ratio	87%	87%	-100%	87%	14,602	31,400
962	Irvine Bl. b/w SR-133 NB and SB Ra	16,800	19,295	38,391	Ratio	99%	99%	-100%	99%	16,627	33,400
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	25,067	62,626	Ratio	150%	150%	-100%	150%	30,677	51,200
2001	Ridge Valley s/o Portola Pkwy.		74	5,958	Increment	0%	0%	-100%	0%	0	6,000
2006	Irvine Bl. e/o Ridge Valley	16,308	20,211	33,363	Ratio	65%	65%	-100%	65%	10,612	26,900
2007	Irvine Bl. w/o Ridge Valley	16,308	20,211	33,365	Ratio	65%	65%	-100%	65%	10,614	26,900
2008	O St. n/o Irvine Bl.		0	12,198	Increment	0%	0%	-100%	0%	0	12,200
2009	O St. s/o Irvine Bl.		0	11,089	Increment	0%	0%	-100%	0%	0	11,100
2012	O St. n/o Trabuco Rd.		0	9,552	Increment	0%	0%	-100%	0%	0	9,600
2013	O St. s/o Trabuco Rd.		0	701	Increment	0%	0%	-100%	0%	0	700
2014	Trabuco Rd. e/o O St.		0	8,399	Increment	0%	0%	-100%	0%	0	8,400
2015	Trabuco Rd. w/o O St.		0	17,150	Increment	0%	0%	-100%	0%	0	17,200
2016	O St. n/o Marine Wy.		0	0	Increment	0%	0%	-100%	0%	0	0

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	8,786	Increment	0%	0%	-100%	0%	0	8,800
2019	Marine Wy.		120	8,786	Increment	0%	0%	-100%	0%	0	8,800
2021	A St.		0	6,766	Increment	0%	0%	-100%	0%	0	6,800
2030	Irvine Bl.	16,800	21,383	41,877	Ratio	96%	96%	-100%	96%	16,102	32,900
2031	Irvine Bl.	16,800	21,383	43,378	Ratio	103%	103%	-100%	103%	17,281	34,100
2201	Portola Springs		79	6,897	Increment	0%	0%	-100%	0%	0	6,900
2204	Modjeska		1,187	11,657	Increment	0%	0%	-100%	0%	0	11,700
2206	Irvine Bl.	16,800	21,383	40,146	Ratio	88%	88%	-100%	88%	14,742	31,500
2568	Trabuco Pkwy.	2,282	4,551	17,150	Ratio	277%	277%	-100%	277%	6,317	8,600
2871	O St		0	5,569	Increment	0%	0%	-100%	0%	0	5,600
2872	O St		0	6,294	Increment	0%	0%	-100%	0%	0	6,300
2873	LN St		0	1,442	Increment	0%	0%	-100%	0%	0	1,400
2874	LN St		0	1,337	Increment	0%	0%	-100%	0%	0	1,300
2875	C St.		0	1,724	Increment	0%	0%	-100%	0%	0	1,700
2876	C St.		0	2,046	Increment	0%	0%	-100%	0%	0	2,000
2877	LN St		0	1,515	Increment	0%	0%	-100%	0%	0	1,500
2878	LN St		0	1,311	Increment	0%	0%	-100%	0%	0	1,300
2879	C St.		0	2,104	Increment	0%	0%	-100%	0%	0	2,100
2880	C St.		0	2,696	Increment	0%	0%	-100%	0%	0	2,700
2881	LQ St		0	4,423	Increment	0%	0%	-100%	0%	0	4,400
2882	LQ St		0	4,247	Increment	0%	0%	-100%	0%	0	4,200
2883	C St.		0	3,119	Increment	0%	0%	-100%	0%	0	3,100
2884	C St.		0	3,191	Increment	0%	0%	-100%	0%	0	3,200
2885	Trabuco		0	906	Increment	0%	0%	-100%	0%	0	900
2886	Trabuco Rd.		0	2,494	Increment	0%	0%	-100%	0%	0	2,500
2887	LM St		0	717	Increment	0%	0%	-100%	0%	0	700
2888	LM St		0	754	Increment	0%	0%	-100%	0%	0	800
2889	LN St		0	1,451	Increment	0%	0%	-100%	0%	0	1,500

Att Post Location	Att Post Location Description	Existing Count	Existing Model Att	Future Model Att	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Att
2890	LN St		0	1,416	Increment	1,416	0%	0%	-100%	0%	0	1,400
2891	LM St		0	745	Increment	745	0%	0%	-100%	0%	0	700
2892	LM St		0	371	Increment	371	0%	0%	-100%	0%	0	400
2893	VV St		0	542	Increment	542	0%	0%	-100%	0%	0	500
2894	VV St		0	918	Increment	918	0%	0%	-100%	0%	0	900
2895	C St.		0	2,046	Increment	2,046	0%	0%	-100%	0%	0	2,000
2896	C St.		0	1,982	Increment	1,982	0%	0%	-100%	0%	0	2,000
2897	VV St		0	591	Increment	591	0%	0%	-100%	0%	0	600
2898	VV St		0	545	Increment	545	0%	0%	-100%	0%	0	500
2899	O St		0	5,738	Increment	5,738	0%	0%	-100%	0%	0	5,700
2900	O St		0	6,889	Increment	6,889	0%	0%	-100%	0%	0	6,900
2901	LQ St		0	3,539	Increment	3,539	0%	0%	-100%	0%	0	3,500
2902	LQ St		0	4,180	Increment	4,180	0%	0%	-100%	0%	0	4,200
2904	O St		0	603	Increment	603	0%	0%	-100%	0%	0	600
2905	O St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2906	LV St		0	603	Increment	603	0%	0%	-100%	0%	0	600
2907	LV St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2909	LY St		0	5,444	Increment	5,444	0%	0%	-100%	0%	0	5,400
2910	Irvine Blvd.	16,800	20,206	34,103	Ratio	11,554	69%	69%	-100%	69%	11,554	28,400
2911	Irvine Blvd.	16,800	20,211	33,363	Ratio	10,932	65%	65%	-100%	65%	10,932	27,700
2912	LY St		0	2,756	Increment	2,756	0%	0%	-100%	0%	0	2,800
2914	LY St		0	2,452	Increment	2,452	0%	0%	-100%	0%	0	2,500
2915	Trabuco		0	328	Increment	328	0%	0%	-100%	0%	0	300
2916	A St		0	806	Increment	806	0%	0%	-100%	0%	0	800
2917	A St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2918	LQ St		0	3,245	Increment	3,245	0%	0%	-100%	0%	0	3,200
2919	LQ St		0	4,050	Increment	4,050	0%	0%	-100%	0%	0	4,100
2920	Z St		0	2,731	Increment	2,731	0%	0%	-100%	0%	0	2,700

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2921 LQ St	e/o Z St		0	0	Increment	0	0%	-100%	0%	0	0
2922 Z St	s/o LQ St		0	0	Increment	0	0%	-100%	0%	0	0
2923 LQ St	w/o Z St		0	2,731	Increment	2,731	0%	-100%	0%	0	2,700
2924 B St.	n/o LQ St		0	0	Increment	0	0%	-100%	0%	0	0
2925 B St.	s/o LQ St		0	0	Increment	0	0%	-100%	0%	0	0
2926 LQ St	e/o B St		0	0	Increment	0	0%	-100%	0%	0	0
2927 LQ St	w/o B St.		0	0	Increment	0	0%	-100%	0%	0	0
2928 B St.	n/o Marine Wy.		0	0	Increment	0	0%	-100%	0%	0	0
2929 Marine Way	e/o B St.		0	0	Increment	0	0%	-100%	0%	0	0
2931 Marine Way	w/o B St.		0	0	Increment	0	0%	-100%	0%	0	0
2933 Irvine Blvd.	e/o LQ St	16,800	21,460	46,513	Ratio	19,613	117%	-100%	117%	19,613	36,400
2934 LV St	e/o C St.		0	2,121	Increment	2,121	0%	-100%	0%	0	2,100
2935 A St	s/o LN St		0	1,342	Increment	1,342	0%	-100%	0%	0	1,300
2936 Irvine Blvd.	e/o Modjeska	16,800	20,206	40,146	Ratio	16,579	99%	-100%	99%	16,579	33,400
2937 Z St	n/o Irvine Blvd		0	3,963	Increment	3,963	0%	-100%	0%	0	4,000
2938 Z St	s/o Irvine Blvd		0	5,055	Increment	5,055	0%	-100%	0%	0	5,100
2940 LN St	w/o A St.		0	1,466	Increment	1,466	0%	-100%	0%	0	1,500
2941 LN St	e/o A St		0	1,459	Increment	1,459	0%	-100%	0%	0	1,500
2942 C St.	w/o O St.		0	3,271	Increment	3,271	0%	-100%	0%	0	3,300
2943 O St	s/o C St.		0	5,864	Increment	5,864	0%	-100%	0%	0	5,900
2945 Irvine Blvd.	e/o B St.	16,800	21,460	41,877	Ratio	15,983	95%	-100%	95%	15,983	32,800
2946 B St.	s/o Irvine		0	1,520	Increment	1,520	0%	-100%	0%	0	1,500
4060 LY St	n/o LQ		0	3,357	Increment	3,357	0%	-100%	0%	0	3,400
4062 LY St	s/o LQ		0	3,539	Increment	3,539	0%	-100%	0%	0	3,500

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	81	.02*	387	.11*
NBT	3	5100	388	.08	731	.14
NBR	2	3400	340	.10	553	.16
SBL	2	3400	397	.12	105	.03
SBT	2	3400	769	.23*	405	.12*
SBR	1	1700	64	.04	130	.08
EBL	2	3400	105	.03	127	.04*
EBT	4	6800	1074	.16*	1056	.16
EBR	1	1700	220	.13	137	.08
WBL	2	3400	641	.19*	450	.13
WBT	3	5100	1275	.25	1446	.28*
WBR	1	1700	126	.07	434	.26
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.65		.60

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	243	.07*	510	.15
NBT	3	5100	529	.10	2130	.42*
NBR	f		107		314	
SBL	2	3400	118	.03	178	.05*
SBT	3	5100	2231	.44*	883	.17
SBR	1	1700	85	.05	83	.05
EBL	2	3400	91	.03*	122	.04
EBT	3	5100	85	.02	239	.05*
EBR	f		426		239	
WBL	2	3400	293	.09	281	.08*
WBT	3	5100	462	.09*	148	.03
WBR	d	1700	181	.11	182	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.68		.65

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	151	.04*	829	.24*
NBT	4	6800	840	.12	2758	.41
NBR	d	1700	8	.00	57	.03
SBL	1	1700	6	.00	12	.01
SBT	4	6800	3149	.46*	1319	.19*
SBR	1	1700	305	.18	274	.16
EBL	1.5		253	{.08}*	483	{.15}*
EBT	0.5	3400	7	.08	11	.15
EBR	2	3400	512	.15	327	.10
WBL	1	1700	9	.01	7	.00
WBT	1	1700	4	.01*	8	.01*
WBR	0	0	7		5	
Right Turn Adjustment			EBR	.04*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.68		.64

304 . Sand Canyon. Av. at Marine Wy.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	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	4	6800	623	.09	3172	.47*
NBR	d	1700	380	.22	400	.24
SBL	2	3400	0	.00	0	.00
SBT	4	6800	3780	.56*	1820	.27
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	0	.00	0	.00
WBT	0	0	0		0	
WBR	1	1700	357	.21	458	.27
Right Turn Adjustment					WBR	.27*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.61		.79

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	771	.11	3208	.47*
NBR	d	1700	162	.10	363	.21
SBL	2	3400	855	.25	587	.17*
SBT	4	6800	2932	.43*	1263	.19
SBR	0	0	0		0	
EBL	2.5		369	.11*	482	.09*
EBT	0	6800	3		0	
EBR	1.5		1058	.31	277	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.20*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.78

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	239	.14*	109	.06*
SBT	0	0	0		0	
SBR	2	3400	291	.09	210	.06
EBL	0	0	0		0	
EBT	4	6800	1461	.21*	1561	.23
EBR	d	1700	326	.19	171	.10
WBL	1	1700	234	.14*	239	.14
WBT	3	5100	1609	.32	2100	.41*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.54		.52

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	111	.07*	221	.13*
NBT	0	0	0		0	
NBR	1	1700	295	.17	463	.27
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1570	.46*	1491	.44
EBR	f		200		281	
WBL	0	0	0		0	
WBT	3	5100	1753	.37	2174	.46*
WBR	0	0	140		160	
Right Turn Adjustment			NBR	.10*	NBR	.12*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.68		.76

557 . O St. at C St.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		7		7	
NBT	1.5	3400	107	.03	242	.08*
NBR	0		2		6	
SBL	0.5		77		82	{.05}*
SBT	1.5	3400	355	.20*	256	.13
SBR	0		234		92	
EBL	0.5		57	{.03}*	177	{.10}*
EBT	0.5	1700	11	.04	41	.14
EBR	0		5		15	
WBL	0.5		10		10	
WBT	0.5	1700	59	.10*	31	.10*
WBR	0		107		121	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.38		.38

558 . 0 St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	223	.07*	221	.07*
NBT	2	3400	86	.03	330	.10
NBR	d	1700	37	.02	48	.03
SBL	1	1700	89	.05	51	.03
SBT	1	1700	372	.22*	147	.09*
SBR	2	3400	543	.16	234	.07
EBL	2	3400	86	.03*	364	.11*
EBT	3	5100	1514	.30	1300	.25
EBR	1	1700	307	.18	306	.18
WBL	2	3400	62	.02	47	.01
WBT	2	3400	1383	.41*	1925	.57*
WBR	1	1700	17	.01	56	.03
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.78	.89	

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	24	.01	25	.01
NBT	1	1700	14	.01*	23	.01*
NBR	0	0	1		2	
SBL	1	1700	28	.02*	32	.02*
SBT	1	1700	5	.00	12	.01
SBR	1	1700	570	.34	387	.23
EBL	2	3400	273	.08*	432	.13*
EBT	2	3400	202	.06	348	.11
EBR	0	0	5		16	
WBL	1	1700	0	.00	1	.00
WBT	2	3400	372	.12*	372	.12*
WBR	0	0	25		38	
Right Turn Adjustment			SBR	.26*	SBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.54	.44	

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	1	1700	0	.00	0	.00
NBR	0	0	0		0	
SBL	0	0	116		77	
SBT	1	1700	1	.19*	1	.11*
SBR	0	0	214		115	
EBL	1	1700	81	.05*	161	.09*
EBT	0	0	238		223	
EBR	1	1700	1	.00	1	.00
WBL	0	0	0		0	
WBT	0	0	161		265	
WBR	0	0	30		129	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.29	.25	

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		10		10	
NBT	0	1700	0	.04*	0	.09*
NBR	0.5		60		146	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	3478	1.02*	2504	.74*
EBR	d	1700	10	.01	10	.01
WBL	1	1700	193	.11*	60	.04*
WBT	3	5100	1490	.29	2440	.48
WBR	0	0	0		0	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				1.22	.92	

572 . A St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	41	.02	56	.03
NBT	1	1700	49	.03*	85	.05*
NBR	1	1700	109	.06	70	.04
SBL	2	3400	416	.12*	170	.05*
SBT	1	1700	99	.06	91	.05
SBR	d	1700	156	.09	131	.08
EBL	1	1700	75	.04	141	.08*
EBT	3	5100	1489	.29*	1090	.21
EBR	1	1700	37	.02	70	.04
WBL	1	1700	74	.04*	159	.09
WBT	3	5100	1046	.21	1883	.37*
WBR	1	1700	136	.08	324	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.53		.60

626 . LY St. at LQ St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	28	{.02}*	33	{.02}*	
NBT	1	1700	22	.04	79	.09	
NBR	0	0	20		40		
SBL	0	0	40		40		
SBT	1	1700	138	.14*	79	.09*	
SBR	0	0	52		33		
EBL	0	0	11	{.01}*	42		
EBT	1	1700	100	.09	189	.16*	
EBR	0	0	40		42		
WBL	0	0	63		29	{.02}*	
WBT	1	1700	220	.18*	105	.10	
WBR	0	0	18		29		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.40		.34	

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	120	.07*	86	.05*	
NBT	0	0	3		3		
NBR	1	1700	120	.07	134	.08	
SBL	0	0	0		0		
SBT	0	0	0		0		
SBR	0	0	0		0		
EBL	0	0	1		1		
EBT	3	5100	274	.05*	486	.10*	
EBR	1	1700	86	.05	145	.09	
WBL	1	1700	106	.06*	135	.08*	
WBT	2	3400	334	.10	294	.09	
WBR	0	0	1		1		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.23		.28	

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	75	.04*	46	.03	
NBT	1	1700	54	.03	132	.08*	
NBR	1	1700	162	.10	96	.06	
SBL	1	1700	113	.07	31	.02*	
SBT	1	1700	175	.10*	105	.06	
SBR	1	1700	52	.03	15	.01	
EBL	1	1700	6	.00	27	.02*	
EBT	3	5100	2045	.40*	1413	.28	
EBR	1	1700	26	.02	65	.04	
WBL	1	1700	49	.03*	100	.06	
WBT	3	5100	1362	.27	2238	.44*	
WBR	1	1700	11	.01	41	.02	
Right Turn Adjustment			NBR	.01*			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.63		.61	

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	0	.00	0	.00	
NBT	1	1700	0	.00*	0	.00*	
NBR	1	1700	0	.00	0	.00	
SBL	1	1700	168	.10*	91	.05*	
SBT	1	1700	0	.02	0	.02	
SBR	0	0	42		26		
EBL	1	1700	18	.01	74	.04*	
EBT	3	5100	2192	.43*	1559	.31	
EBR	1	1700	0	.00	0	.00	
WBL	2	3400	0	.00	0	.00	
WBT	3	5100	1418	.28	2344	.46*	
WBR	1	1700	62	.04	186	.11	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.58		.60	

603 . 0 St. at LN St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	25	.01*	27	.02*
NBT	2	3400	63	.02	222	.08
NBR	0	0	12		48	
SBL	1	1700	12	.01	21	.01
SBT	2	3400	383	.12*	211	.07*
SBR	0	0	24		11	
EBL	1	1700	3	.00	16	.01
EBT	1	1700	6	.02*	31	.04*
EBR	0	0	21		33	
WBL	1	1700	86	.05*	26	.02*
WBT	1	1700	50	.04	12	.01
WBR	0	0	14		12	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.25		.20

605 . 0 St. at LQ St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		66	{.04}*	65	
NBT	1.5	3400	75	.05	231	.11*
NBR	0		40		63	
SBL	0.5		34		29	{.02}*
SBT	1.5	3400	343	.13*	184	.07
SBR	0		53		28	
EBL	0.5		10	{.01}*	46	
EBT	0.5	1700	46	.06	112	.14*
EBR	0		54		83	
WBL	0.5		89		50	{.03}*
WBT	0.5	1700	124	.13*	70	.09
WBR	0		16		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.36		.35

608 . 0 St. at LV St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	1	.00	1	.00
NBT	2	3400	8	.00	8	.00*
NBR	0	0	1		2	
SBL	1	1700	4	.00	21	.01*
SBT	2	3400	5	.00*	7	.00
SBR	0	0	1		2	
EBL	1	1700	4	.00	3	.00
EBT	1	1700	5	.00	7	.00
EBR	0	0	1		1	
WBL	1	1700	4	.00	3	.00
WBT	1	1700	8	.02*	8	.02*
WBR	0	0	18		30	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.07		.08

610 . LM St at LN St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	14	{.01}*	8	
NBT	1	1700	9	.02	19	.02*
NBR	0	0	8		13	
SBL	0	0	12		13	{.01}*
SBT	1	1700	39	.04*	19	.02
SBR	0	0	22		8	
EBL	0	0	3		13	
EBT	1	1700	21	.02	74	.06*
EBR	0	0	8		13	
WBL	0	0	23		8	
WBT	1	1700	114	.09*	33	.03
WBR	0	0	8		8	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.19		.14

611 . LM St at VV St

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	14	{.01}*	4	
NBT	1	1700	15	.02	14	.01
NBR	0	0	1		2	
SBL	0	0	3		8	
SBT	1	1700	9	.04*	19	.02*
SBR	0	0	58		13	
EBL	0	0	12	{.01}*	21	
EBT	1	1700	6	.01	30	.04*
EBR	0	0	1		9	
WBL	0	0	1		2	
WBT	1	1700	35	.02*	13	.01
WBR	0	0	4		5	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.13		.11

613 . C St. at LN St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	18	{.01}*	14	
NBT	1	1700	36	.04	77	.07*
NBR	0	0	17		28	
SBL	0	0	13		16	{.01}*
SBT	1	1700	53	.05*	46	.04
SBR	0	0	13		8	
EBL	0	0	7		17	
EBT	1	1700	30	.03	56	.05*
EBR	0	0	13		17	
WBL	0	0	34		17	{.01}*
WBT	1	1700	79	.08*	27	.04
WBR	0	0	17		16	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.19		.19

614 . C St. at VV St

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	7		7	
NBT	1	1700	50	.04	96	.07*
NBR	0	0	3		12	
SBL	0	0	5		12	{.01}*
SBT	1	1700	82	.06*	64	.05
SBR	0	0	12		7	
EBL	0	0	4		15	{.01}*
EBT	1	1700	2	.01	16	.02
EBR	0	0	4		10	
WBL	0	0	14		6	
WBT	1	1700	20	.03*	6	.01*
WBR	0	0	16		9	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.14		.15

615 . C St. at LQ St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	35	{.02}*	32	
NBT	1	1700	19	.05	71	.09*
NBR	0	0	26		47	
SBL	0	0	24		21	{.01}*
SBT	1	1700	62	.07*	35	.04
SBR	0	0	34		14	
EBL	0	0	6		33	
EBT	1	1700	81	.06	191	.15*
EBR	0	0	22		36	
WBL	0	0	48		29	{.02}*
WBT	1	1700	237	.18*	104	.09
WBR	0	0	15		26	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.32		.32

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	36	.02*	45	.03*
NBT	1	1700	46	.03	99	.06
NBR	0	0	9		6	
SBL	1	1700	12	.01	4	.00
SBT	1	1700	122	.10*	72	.06*
SBR	0	0	46		34	
EBL	1	1700	23	.01	56	.03
EBT	1	1700	41	.05*	31	.05*
EBR	0	0	46		53	
WBL	1	1700	6	.00	8	.00
WBT	1	1700	21	.01	34	.02
WBR	0	0	3		8	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.22		.19

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	4	.00	6	.00
NBT	1	1700	57	.03	124	.07
NBR	0	0	1		1	
SBL	1	1700	1	.00	1	.00
SBT	1	1700	132	.09*	105	.07*
SBR	0	0	16		14	
EBL	1	1700	13	.01*	16	.01*
EBT	0	0	3		3	
EBR	1	1700	8	.00	5	.00
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.15		.13

782 . A St. at LQ St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		10		8	
SBT	0	1700	0	.04*	0	.03*
SBR	0.5		63		35	
EBL	0.5		8		18	
EBT	0.5	1700	140	.09	207	.13*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	197	.12*	119	.07
WBR	0	0	2		2	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.21		.21

787 . Z St. at LQ St.

ITAM 8.4-10 Y15 Pend GPN 11 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	2		2	
SBT	1	1700	0	.08*	0	.05*
SBR	0	0	140		90	
EBL	0	0	140	{.08}*	170	{.10}*
EBT	1	1700	0	.08	0	.10
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.21		.20

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

**HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY
YEAR 2015 – WITH 2012 MODIFIED PROJECT OPTION 1**

Adt Refinement Summary

Scenario: YEAR 2015 Pend Opt 1

Existing Model RunID: ITAM-8.4-Y2008

Future Model RunID: ITAM-8.4-Y2015

Existing Validation Year: 2008

Future Analysis Year: 2015

Project: ITAM 8.4-10

JobNumber:

Analyst: Peter Anderson

Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	23,174	Ratio	11,339	121%	121%	-100%	121%	11,339	20,700
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	25,553	Increment	15,075	123%	123%	-100%	123%	15,075	27,300
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	38,906	Ratio	12,791	112%	112%	-100%	112%	12,791	24,300
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	48,936	Increment	29,112	142%	142%	-100%	142%	29,112	49,600
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	56,740	Increment	36,358	178%	178%	-100%	178%	36,358	56,800
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	62,334	Ratio	20,453	88%	88%	-100%	88%	20,453	43,800
511	Irvine Bl. e/o Sand Canyon. Av.	19,000	20,323	35,500	Ratio	14,189	75%	75%	-100%	75%	14,189	33,200
512	Irvine Bl. e/o SR-133 NB Ramps	19,000	20,833	40,711	Ratio	18,129	95%	95%	-100%	95%	18,129	37,100
567	Trabuco Rd. w/o SR-133 SB Ramps		0	22,952	Increment	22,952	0%	0%	-100%	0%	0	23,000
603	Marine Wy. e/o Sand Canyon. Av.	4,387	0	7,447	Increment	7,447	170%	170%	-100%	170%	7,447	11,800
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	60,208	Ratio	29,868	129%	129%	-100%	129%	29,868	52,900
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,098	32,701	Ratio	13,290	71%	71%	-100%	71%	13,290	31,900
928	Irvine Bl. w/o SR-133 SB Ramps	19,000	20,323	35,500	Ratio	14,189	75%	75%	-100%	75%	14,189	33,200
962	Irvine Bl. b/w SR-133 NB and SB Ra	19,000	19,661	35,518	Ratio	15,324	81%	81%	-100%	81%	15,324	34,300
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	63,142	Ratio	28,829	141%	141%	-100%	141%	28,829	49,300
2001	Ridge Valley s/o Portola Pkwy.		77	5,863	Increment	5,786	0%	0%	-100%	0%	0	5,900
2006	Irvine Bl. e/o Ridge Valley	19,000	20,753	32,349	Ratio	10,616	56%	56%	-100%	56%	10,616	29,600
2007	Irvine Bl. w/o Ridge Valley	19,000	20,753	32,351	Ratio	10,618	56%	56%	-100%	56%	10,618	29,600
2008	O St. n/o Irvine Bl.		0	12,119	Increment	12,119	0%	0%	-100%	0%	0	12,100
2009	O St. s/o Irvine Bl.		0	9,286	Increment	9,286	0%	0%	-100%	0%	0	9,300
2012	O St. n/o Trabuco Rd.		0	15,219	Increment	15,219	0%	0%	-100%	0%	0	15,200
2013	O St. s/o Trabuco Rd.		0	4,309	Increment	4,309	0%	0%	-100%	0%	0	4,300
2014	Trabuco Rd. e/o O St.		0	9,320	Increment	9,320	0%	0%	-100%	0%	0	9,300
2015	Trabuco Rd. w/o O St.		0	22,952	Increment	22,952	0%	0%	-100%	0%	0	23,000
2016	O St. n/o Marine Wy.		0	0	Increment	0	0%	0%	-100%	0%	0	0

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	InterimR aw Growth	InterimR aw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	6,945	Increment	6,945	0%	0%	-100%	0%	0	6,900
2019	Marine Wy.		120	6,945	Increment	6,825	0%	0%	-100%	0%	0	6,900
2021	A St.		0	6,050	Increment	6,050	0%	0%	-100%	0%	0	6,100
2030	Irvine Bl.	19,000	21,695	41,291	Ratio	17,162	90%	90%	-100%	90%	17,162	36,200
2031	Irvine Bl.	19,000	21,695	42,789	Ratio	18,474	97%	97%	-100%	97%	18,474	37,500
2201	Portola Springs		80	6,939	Increment	6,859	0%	0%	-100%	0%	0	6,900
2204	Modjeska		1,163	11,655	Increment	10,492	0%	0%	-100%	0%	0	11,700
2206	Irvine Bl.	19,000	21,901	39,482	Ratio	15,252	80%	80%	-100%	80%	15,252	34,300
2568	Trabuco Pkwy.	2,282	4,547	22,952	Ratio	9,237	405%	405%	-100%	405%	9,237	11,500
2871	O St		0	6,409	Increment	6,409	0%	0%	-100%	0%	0	6,400
2872	O St		0	8,635	Increment	8,635	0%	0%	-100%	0%	0	8,600
2873	LN St		0	2,141	Increment	2,141	0%	0%	-100%	0%	0	2,100
2874	LN St		0	1,479	Increment	1,479	0%	0%	-100%	0%	0	1,500
2875	C St.		0	1,045	Increment	1,045	0%	0%	-100%	0%	0	1,000
2876	C St.		0	1,480	Increment	1,480	0%	0%	-100%	0%	0	1,500
2877	LN St		0	2,271	Increment	2,271	0%	0%	-100%	0%	0	2,300
2878	LN St		0	1,911	Increment	1,911	0%	0%	-100%	0%	0	1,900
2879	C St.		0	1,621	Increment	1,621	0%	0%	-100%	0%	0	1,600
2880	C St.		0	2,369	Increment	2,369	0%	0%	-100%	0%	0	2,400
2881	LQ St		0	5,074	Increment	5,074	0%	0%	-100%	0%	0	5,100
2882	LQ St		0	4,541	Increment	4,541	0%	0%	-100%	0%	0	4,500
2883	C St.		0	3,022	Increment	3,022	0%	0%	-100%	0%	0	3,000
2884	C St.		0	2,215	Increment	2,215	0%	0%	-100%	0%	0	2,200
2885	Trabuco		0	1,130	Increment	1,130	0%	0%	-100%	0%	0	1,100
2886	Trabuco Rd.		0	3,119	Increment	3,119	0%	0%	-100%	0%	0	3,100
2887	LM St		0	1,034	Increment	1,034	0%	0%	-100%	0%	0	1,000
2888	LM St		0	1,069	Increment	1,069	0%	0%	-100%	0%	0	1,100
2889	LN St		0	2,166	Increment	2,166	0%	0%	-100%	0%	0	2,200

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth %	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth %	Refined Adt
2890 LN St	w/o LM		0	2,137	Increment	2,137	0%	0%	-100%	0%	0	2,100
2891 LM St	n/o VV		0	1,060	Increment	1,060	0%	0%	-100%	0%	0	1,100
2892 LM St	s/o VV		0	335	Increment	335	0%	0%	-100%	0%	0	300
2893 VV St	e/o LM		0	562	Increment	562	0%	0%	-100%	0%	0	600
2894 VV St	w/ LM		0	1,309	Increment	1,309	0%	0%	-100%	0%	0	1,300
2895 C St.	n/VV		0	1,480	Increment	1,480	0%	0%	-100%	0%	0	1,500
2896 C St.	s/o VV		0	1,394	Increment	1,394	0%	0%	-100%	0%	0	1,400
2897 VV St	e/o C St		0	612	Increment	612	0%	0%	-100%	0%	0	600
2898 VV St	w/o C St		0	567	Increment	567	0%	0%	-100%	0%	0	600
2899 O St	n/o LQ St		0	9,227	Increment	9,227	0%	0%	-100%	0%	0	9,200
2900 O St	s/o LQ St		0	10,084	Increment	10,084	0%	0%	-100%	0%	0	10,100
2901 LQ St	e/o O St		0	3,815	Increment	3,815	0%	0%	-100%	0%	0	3,800
2902 LQ St	w/o O St		0	2,436	Increment	2,436	0%	0%	-100%	0%	0	2,400
2904 O St	n/o LV St		0	3,889	Increment	3,889	0%	0%	-100%	0%	0	3,900
2905 O St	s/o LV St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2906 LV St	e/o O St		0	1,156	Increment	1,156	0%	0%	-100%	0%	0	1,200
2907 LV St	w/o O St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2909 LY St	s/o Irvine Blvd		0	3,327	Increment	3,327	0%	0%	-100%	0%	0	3,300
2910 Irvine Blvd.	e/o LY St	19,000	20,751	32,702	Ratio	10,943	58%	58%	-100%	58%	10,943	29,900
2911 Irvine Blvd.	w/o LY St	19,000	20,753	32,349	Ratio	10,616	56%	56%	-100%	56%	10,616	29,600
2912 LY St	n/o Trabuco Rd.		0	1,319	Increment	1,319	0%	0%	-100%	0%	0	1,300
2914 LY St	s/o Trabuco Rd.		0	917	Increment	917	0%	0%	-100%	0%	0	900
2915 Trabuco	w/o LY St		0	444	Increment	444	0%	0%	-100%	0%	0	400
2916 A St	n/o LQ St		0	943	Increment	943	0%	0%	-100%	0%	0	900
2917 A St	s/o LQ St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2918 LQ St	e/o A St		0	3,585	Increment	3,585	0%	0%	-100%	0%	0	3,600
2919 LQ St	w/o A St.		0	4,529	Increment	4,529	0%	0%	-100%	0%	0	4,500
2920 Z St	n/o LQ St		0	2,891	Increment	2,891	0%	0%	-100%	0%	0	2,900

Scenario: YEAR 2015 Pend Opt 1
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2015
 Existing Validation Year: 2008
 Future Analysis Year: 2015

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2921	LQ St			0	Increment	0	0%	0%	-100%	0%	0	0
2922	Z St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2923	LQ St		0	2,891	Increment	2,891	0%	0%	-100%	0%	0	2,900
2924	B St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2925	B St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2926	LQ St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2927	LQ St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2928	B St		0	0	Increment	0	0%	0%	-100%	0%	0	0
2929	Marine Way		0	0	Increment	0	0%	0%	-100%	0%	0	0
2931	Marine Way		0	0	Increment	0	0%	0%	-100%	0%	0	0
2933	Irvine Blvd.	19,000	21,768	45,786	Ratio	20,964	110%	110%	-100%	110%	20,964	40,000
2934	LV St		0	854	Increment	854	0%	0%	-100%	0%	0	900
2935	A St		0	1,360	Increment	1,360	0%	0%	-100%	0%	0	1,400
2936	Irvine Blvd.	19,000	20,751	39,482	Ratio	17,150	90%	90%	-100%	90%	17,150	36,200
2937	Z St		0	3,863	Increment	3,863	0%	0%	-100%	0%	0	3,900
2938	Z St		0	5,000	Increment	5,000	0%	0%	-100%	0%	0	5,000
2940	LN St		0	1,395	Increment	1,395	0%	0%	-100%	0%	0	1,400
2941	LN St		0	1,377	Increment	1,377	0%	0%	-100%	0%	0	1,400
2942	C St		0	1,910	Increment	1,910	0%	0%	-100%	0%	0	1,900
2943	O St		0	6,290	Increment	6,290	0%	0%	-100%	0%	0	6,300
2945	Irvine Blvd.	19,000	21,768	41,291	Ratio	17,040	90%	90%	-100%	90%	17,040	36,000
2946	B St		0	1,529	Increment	1,529	0%	0%	-100%	0%	0	1,500
4060	LY St		0	2,065	Increment	2,065	0%	0%	-100%	0%	0	2,100
4062	LY St		0	2,060	Increment	2,060	0%	0%	-100%	0%	0	2,100

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	87	.03*	376	.11*
NBT	3	5100	377	.07	668	.13
NBR	2	3400	326	.10	516	.15
SBL	2	3400	344	.10	94	.03
SBT	2	3400	704	.21*	384	.11*
SBR	1	1700	62	.04	122	.07
EBL	2	3400	102	.03	124	.04*
EBT	4	6800	1024	.15*	1043	.15
EBR	1	1700	222	.13	143	.08
WBL	2	3400	597	.18*	435	.13
WBT	3	5100	1253	.25	1385	.27*
WBR	1	1700	112	.07	390	.23
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.62	.58	

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	252	.07*	528	.16
NBT	3	5100	493	.10	1923	.38*
NBR	f		167		466	
SBL	2	3400	150	.04	248	.07*
SBT	3	5100	2075	.41*	774	.15
SBR	1	1700	72	.04	80	.05
EBL	2	3400	78	.02	117	.03
EBT	3	5100	123	.02*	376	.07*
EBR	f		448		238	
WBL	2	3400	437	.13*	399	.12*
WBT	3	5100	625	.12	232	.05
WBR	d	1700	219	.13	250	.15
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.68	.69	

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	164	.05*	835	.25*
NBT	4	6800	890	.13	2658	.39
NBR	d	1700	8	.00	57	.03
SBL	1	1700	6	.00	11	.01
SBT	4	6800	3119	.46*	1381	.20*
SBR	1	1700	333	.20	266	.16
EBL	1.5		262	{.08}*	487	{.15}*
EBT	0.5	3400	6	.08	11	.15
EBR	2	3400	492	.14	372	.11
WBL	1	1700	9	.01	7	.00
WBT	1	1700	4	.01*	8	.01*
WBR	0	0	8		4	
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.67	.66	

304 . Sand Canyon. Av. at Marine Wy.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	4	6800	785	.12	3001	.44*
NBR	d	1700	300	.18	610	.36
SBL	2	3400	0	.00	0	.00
SBT	4	6800	3650	.54*	1900	.28
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	0	.00	0	.00
WBT	0	0	0		0	
WBR	1	1700	255	.15	539	.32
Right Turn Adjustment						WBR .32*
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.59	.81	

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	4	6800	809 .12	3215 .47*		
NBR	d	1700	164 .10	349 .21		
SBL	2	3400	793 .23	611 .18*		
SBT	4	6800	2863 .42*	1325 .19		
SBR	0	0	0	0		
EBL	2.5		371 .11*	495 .10*		
EBT	0	6800	3	0		
EBR	1.5		1077 .32	275 {.00}		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Right Turn Adjustment			EBR .21*			
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.79	.80		

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	1	1700	207 .12*	103 .06*		
SBT	0	0	0	0		
SBR	2	3400	313 .09	216 .06		
EBL	0	0	0	0		
EBT	4	6800	1343 .20*	1487 .22		
EBR	d	1700	327 .19	173 .10		
WBL	1	1700	193 .11*	217 .13		
WBT	3	5100	1497 .29	1964 .39*		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.48	.50		

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	94 .06*	221 .13*		
NBT	0	0	0	0		
NBR	1	1700	230 .14	422 .25		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	2	3400	1400 .41*	1368 .40		
EBR	f		200	320		
WBL	0	0	0	0		
WBT	3	5100	1606 .34	2009 .42*		
WBR	0	0	150	150		
Right Turn Adjustment			NBR .08*	NBR .10*		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.60	.70		

557 . O St. at C St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		15 {.01}*	21 {.01}*		
NBT	1.5	3400	105 .04	265 .09		
NBR	0		2	9		
SBL	0.5		29	44		
SBT	1.5	3400	354 .17*	304 .13*		
SBR	0		203	92		
EBL	0.5		57 {.03}*	164		
EBT	0.5	1700	10 .05	57 .16*		
EBR	0		14	43		
WBL	0.5		12	13 {.01}*		
WBT	0.5	1700	62 .07*	37 .06		
WBR	0		47	51		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.33	.36		

558 . 0 St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	161	.05*	158	.05*
NBT	2	3400	86	.03	337	.10
NBR	d	1700	36	.02	45	.03
SBL	1	1700	108	.06	68	.04
SBT	1	1700	362	.21*	186	.11*
SBR	2	3400	490	.14	239	.07
EBL	2	3400	81	.02*	369	.11*
EBT	3	5100	1389	.27	1197	.23
EBR	1	1700	225	.13	270	.16
WBL	2	3400	65	.02	54	.02
WBT	2	3400	1353	.40*	1794	.53*
WBR	1	1700	23	.01	74	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.73		.85

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1700	68	.04*	166	.10*
NBT	1	1700	49	.03	163	.10
NBR	0	0	2		12	
SBL	1	1700	32	.02	34	.02
SBT	1	1700	67	.04*	164	.10*
SBR	1	1700	790	.46	507	.30
EBL	2	3400	393	.12*	604	.18*
EBT	2	3400	186	.07	364	.16
EBR	0	0	48		192	
WBL	1	1700	5	.00	13	.01
WBT	2	3400	452	.14*	388	.13*
WBR	0	0	38		43	
Right Turn Adjustment			SBR	.33*	SBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.62

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	0	.00	0	.00
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1700	1	.19*	1	.28*
SBR	0	0	325		477	
EBL	1	1700	135	.08*	476	.28*
EBT	0	0	0		0	
EBR	1	1700	1	.00	1	.00
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.32		.61

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0.5		10		10	
NBT	0	1700	0	.04*	0	.09*
NBR	0.5		61		144	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	3426	1.01*	2536	.75*
EBR	d	1700	10	.01	10	.01
WBL	1	1700	193	.11*	60	.04*
WBT	3	5100	1500	.29	2450	.48
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				1.21		.93

572 . A St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	32	.02	46	.03
NBT	1	1700	45	.03*	81	.05*
NBR	1	1700	92	.05	73	.04
SBL	2	3400	434	.13*	194	.06*
SBT	1	1700	86	.05	96	.06
SBR	d	1700	152	.09	122	.07
EBL	1	1700	70	.04	137	.08*
EBT	3	5100	1384	.27*	1066	.21
EBR	1	1700	30	.02	59	.03
WBL	1	1700	74	.04*	146	.09
WBT	3	5100	1055	.21	1815	.36*
WBR	1	1700	154	.09	343	.20
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.52		.60

626 . LY St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	0	0	10	{.01}*	37		
NBT	1	1700	3	.01	72	.09*	
NBR	0	0	7		41		
SBL	0	0	35		37	{.02}*	
SBT	1	1700	92	.11*	58	.08	
SBR	0	0	53		34		
EBL	0	0	6		44		
EBT	1	1700	119	.09	235	.19*	
EBR	0	0	36		41		
WBL	0	0	52		32	{.02}*	
WBT	1	1700	267	.19*	171	.14	
WBR	0	0	11		36		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.36		.37	

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	1	1700	68	.04*	60	.04*	
NBT	0	0	3		3		
NBR	1	1700	72	.04	130	.08	
SBL	0	0	0		0		
SBT	0	0	0		0		
SBR	0	0	0		0		
EBL	0	0	1		1		
EBT	3	5100	208	.04	450	.09*	
EBR	1	1700	42	.02	93	.05	
WBL	1	1700	78	.05	107	.06*	
WBT	2	3400	372	.11*	240	.07	
WBR	0	0	1		1		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.20		.24	

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	1	1700	79	.05*	47	.03	
NBT	1	1700	54	.03	135	.08*	
NBR	1	1700	159	.09	114	.07	
SBL	1	1700	114	.07	31	.02*	
SBT	1	1700	170	.10*	108	.06	
SBR	1	1700	56	.03	13	.01	
EBL	1	1700	5	.00	23	.01*	
EBT	3	5100	1987	.39*	1435	.28	
EBR	1	1700	24	.01	69	.04	
WBL	1	1700	45	.03*	123	.07	
WBT	3	5100	1385	.27	2211	.43*	
WBR	1	1700	10	.01	41	.02	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.62		.59	

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	2	3400	0	.00	0	.00	
NBT	1	1700	0	.00*	0	.00*	
NBR	1	1700	0	.00	0	.00	
SBL	1	1700	168	.10*	82	.05*	
SBT	1	1700	0	.02	0	.01	
SBR	0	0	41		24		
EBL	1	1700	17	.01	75	.04*	
EBT	3	5100	2122	.42*	1602	.31	
EBR	1	1700	0	.00	0	.00	
WBL	2	3400	0	.00	0	.00	
WBT	3	5100	1429	.28	2361	.46*	
WBR	1	1700	63	.04	175	.10	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.57		.60	

603 . 0 St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	16	.01*	63	.04*
NBT	2	3400	84	.03	295	.12
NBR	0	0	27		109	
SBL	1	1700	8	.00	21	.01
SBT	2	3400	428	.13*	328	.10*
SBR	0	0	6		12	
EBL	1	1700	5	.00	6	.00
EBT	1	1700	15	.05*	20	.03*
EBR	0	0	70		35	
WBL	1	1700	142	.08*	47	.03*
WBT	1	1700	18	.02	15	.01
WBR	0	0	11		8	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .32 .25

605 . 0 St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		38	{.02}*	26	
NBT	1.5	3400	99	.06	432	.16*
NBR	0		53		74	
SBL	0.5		52		49	{.03}*
SBT	1.5	3400	578	.20*	350	.12
SBR	0		40		16	
EBL	0.5		5		43	
EBT	0.5	1700	24	.03	67	.10*
EBR	0		30		52	
WBL	0.5		162		68	{.04}*
WBT	0.5	1700	92	.16*	28	.09
WBR	0		26		55	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .43 .38

608 . 0 St. at LV St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	2	.00	1	.00
NBT	2	3400	13	.00	31	.01*
NBR	0	0	2		1	
SBL	1	1700	22	.01	92	.05*
SBT	2	3400	22	.01*	10	.01
SBR	0	0	22		10	
EBL	1	1700	13	.01*	31	.02*
EBT	1	1700	7	.01	3	.00
EBR	0	0	2		1	
WBL	1	1700	2	.00	1	.00
WBT	1	1700	7	.10*	3	.16*
WBR	0	0	167		276	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .17 .29

610 . LM St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	13	{.01}*	10	{.01}*
NBT	1	1700	8	.02	22	.03
NBR	0	0	9		19	
SBL	0	0	16		19	
SBT	1	1700	49	.05*	22	.03*
SBR	0	0	25		10	
EBL	0	0	4		16	
EBT	1	1700	35	.03	122	.09*
EBR	0	0	12		16	
WBL	0	0	30		11	{.01}*
WBT	1	1700	132	.10*	49	.04
WBR	0	0	8		11	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .21 .19

611 . LM St. at VV St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	13 { .01}*	7		
NBT	1	1700	15 .02	12 .01		
NBR	0	0	2	1		
SBL	0	0	9	5		
SBT	1	1700	9 .05*	17 .03*		
SBR	0	0	72	28		
EBL	0	0	10 { .01}*	35		
EBT	1	1700	9 .01	33 .05*		
EBR	0	0	1	12		
WBL	0	0	1	1		
WBT	1	1700	35 .02*	16 .01		
WBR	0	0	5	3		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.14	.13		

613 . C St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	15	13		
NBT	1	1700	24 .04*	40 .05*		
NBR	0	0	21	37		
SBL	0	0	8	18 { .01}*		
SBT	1	1700	17 .02	36 .04		
SBR	0	0	5	6		
EBL	0	0	6	12		
EBT	1	1700	51 .04	105 .08*		
EBR	0	0	13	23		
WBL	0	0	40	32 { .02}*		
WBT	1	1700	110 .10*	51 .06		
WBR	0	0	20	17		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.19	.21		

614 . C St. at VV St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	7	6		
NBT	1	1700	41 .03	72 .05*		
NBR	0	0	3	13		
SBL	0	0	5	13 { .01}*		
SBT	1	1700	54 .04*	72 .05		
SBR	0	0	11	6		
EBL	0	0	4	11 { .01}*		
EBT	1	1700	3 .01	18 .02		
EBR	0	0	3	11		
WBL	0	0	12	10		
WBT	1	1700	23 .03*	8 .02*		
WBR	0	0	15	10		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.12	.14		

615 . C St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	27 { .02}*	31		
NBT	1	1700	15 .03	66 .11*		
NBR	0	0	17	93		
SBL	0	0	23	29 { .02}*		
SBT	1	1700	40 .06*	61 .06		
SBR	0	0	38	10		
EBL	0	0	10 { .01}*	16		
EBT	1	1700	102 .08	198 .15*		
EBR	0	0	19	46		
WBL	0	0	34	82 { .05}*		
WBT	1	1700	281 .19*	119 .13		
WBR	0	0	15	28		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.33	.38		

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	45	.03*	35	.02*
NBT	1	1700	21	.01	131	.08
NBR	0	0	4		6	
SBL	1	1700	9	.01	11	.01
SBT	1	1700	26	.08*	163	.13*
SBR	0	0	106		59	
EBL	1	1700	28	.02*	74	.04*
EBT	1	1700	48	.04	33	.05
EBR	0	0	14		56	
WBL	1	1700	2	.00	11	.01
WBT	1	1700	65	.04*	36	.03*
WBR	0	0	3		14	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.22		.27

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	4	.00	7	.00
NBT	1	1700	17	.01	85	.05
NBR	0	0	1		1	
SBL	1	1700	1	.00	1	.00
SBT	1	1700	69	.07*	84	.06*
SBR	0	0	49		14	
EBL	1	1700	15	.01*	20	.01*
EBT	0	0	3		3	
EBR	1	1700	5	.00	10	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.13		.12

782 . A St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		11		14	
SBT	0	1700	0	.05*	0	.04*
SBR	0.5		81		60	
EBL	0.5		8		18	
EBT	0.5	1700	132	.08	246	.16*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	206	.12*	160	.10
WBR	0	0	2		2	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.22		.25

787 . Z St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	2		2	
SBT	1	1700	0	.08*	0	.08*
SBR	0	0	140		130	
EBL	0	0	130	{.08}*	210	{.12}*
EBT	1	1700	0	.08	0	.12
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.21		.25

ITAM 8.4-10 Y15 Pend Opt 1 : No K-8

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	11	{.01}*	21	
NBT	1	1700	10	.02	91	.09*
NBR	0	0	8		38	
SBL	0	0	19		29	{.02}*
SBT	1	1700	97	.08*	76	.07
SBR	0	0	24		15	
EBL	0	0	8		22	
EBT	1	1700	64	.06	84	.08*
EBR	0	0	38		25	
WBL	0	0	49		29	{.02}*
WBT	1	1700	108	.10*	54	.06
WBR	0	0	12		27	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.24		.26

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

**HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY
YEAR 2015 – WITH 2012 MODIFIED PROJECT OPTION 2**

Adt Refinement Summary

Scenario: YEAR 2015 Pend Opt 2

Existing Model RunID: ITAM-8.4-Y2008

Future Model RunID: ITAM-8.4-Y2015

Existing Validation Year: 2008

Future Analysis Year: 2015

Project: ITAM 8.4-10

JobNumber:

Analyst: Peter Anderson

Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	23,251	Ratio	11,407	122%	122%	-100%	122%	11,407	20,800
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	25,646	Increment	15,168	124%	124%	-100%	124%	15,168	27,400
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	39,011	Ratio	12,856	112%	112%	-100%	112%	12,856	24,300
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	48,677	Increment	28,853	141%	141%	-100%	141%	28,853	49,300
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	56,473	Increment	36,091	176%	176%	-100%	176%	36,091	56,600
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	62,379	Ratio	20,485	88%	88%	-100%	88%	20,485	43,800
511	Irvine Bl. e/o Sand Canyon. Av.	19,000	20,323	35,288	Ratio	13,991	74%	74%	-100%	74%	13,991	33,000
512	Irvine Bl. e/o SR-133 NB Ramps	19,000	20,833	40,557	Ratio	17,989	95%	95%	-100%	95%	17,989	37,000
567	Trabuco Rd. w/o SR-133 SB Ramps		0	22,825	Increment	22,825	0%	0%	-100%	0%	0	22,800
603	Marine Wy. e/o Sand Canyon. Av.	4,387	0	7,806	Increment	7,806	178%	178%	-100%	178%	7,806	12,200
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	59,988	Ratio	29,674	129%	129%	-100%	129%	29,674	52,700
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,098	32,597	Ratio	13,189	71%	71%	-100%	71%	13,189	31,800
928	Irvine Bl. w/o SR-133 SB Ramps	19,000	20,323	35,288	Ratio	13,991	74%	74%	-100%	74%	13,991	33,000
962	Irvine Bl. b/w SR-133 NB and SB Ra	19,000	19,661	35,285	Ratio	15,099	79%	79%	-100%	79%	15,099	34,100
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	63,208	Ratio	28,880	141%	141%	-100%	141%	28,880	49,400
2001	Ridge Valley s/o Portola Pkwy.		77	5,849	Increment	5,772	0%	0%	-100%	0%	0	5,800
2006	Irvine Bl. e/o Ridge Valley	19,000	20,753	32,273	Ratio	10,547	56%	56%	-100%	56%	10,547	29,500
2007	Irvine Bl. w/o Ridge Valley	19,000	20,753	32,275	Ratio	10,549	56%	56%	-100%	56%	10,549	29,500
2008	O St. n/o Irvine Bl.		0	12,113	Increment	12,113	0%	0%	-100%	0%	0	12,100
2009	O St. s/o Irvine Bl.		0	8,995	Increment	8,995	0%	0%	-100%	0%	0	9,000
2012	O St. n/o Trabuco Rd.		0	14,022	Increment	14,022	0%	0%	-100%	0%	0	14,000
2013	O St. s/o Trabuco Rd.		0	4,293	Increment	4,293	0%	0%	-100%	0%	0	4,300
2014	Trabuco Rd. e/o O St.		0	10,224	Increment	10,224	0%	0%	-100%	0%	0	10,200
2015	Trabuco Rd. w/o O St.		0	22,825	Increment	22,825	0%	0%	-100%	0%	0	22,800
2016	O St. n/o Marine Wy.		0	0	Increment	0	0%	0%	-100%	0%	0	0

Scenario: YEAR 2015 Pend Opt 2
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2015
 Existing Validation Year: 2008
 Future Analysis Year: 2015

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	7,312	Increment	7,312	0%	0%	-100%	0%	0	7,300
2019	Marine Wy.		120	7,312	Increment	7,192	0%	0%	-100%	0%	0	7,300
2021	A St.		0	6,060	Increment	6,060	0%	0%	-100%	0%	0	6,100
2030	Irvine Bl.	19,000	21,695	41,243	Ratio	17,120	90%	90%	-100%	90%	17,120	36,100
2031	Irvine Bl.	19,000	21,695	42,744	Ratio	18,434	97%	97%	-100%	97%	18,434	37,400
2201	Portola Springs		80	6,911	Increment	6,831	0%	0%	-100%	0%	0	6,900
2204	Modjeska		1,163	11,658	Increment	10,495	0%	0%	-100%	0%	0	11,700
2206	Irvine Bl.	19,000	21,901	39,553	Ratio	15,314	81%	81%	-100%	81%	15,314	34,300
2568	Trabuco Pkwy.	2,282	4,547	22,825	Ratio	9,173	402%	402%	-100%	402%	9,173	11,500
2871	O St		0	5,463	Increment	5,463	0%	0%	-100%	0%	0	5,500
2872	O St		0	7,614	Increment	7,614	0%	0%	-100%	0%	0	7,600
2873	LN St		0	2,198	Increment	2,198	0%	0%	-100%	0%	0	2,200
2874	LN St		0	1,475	Increment	1,475	0%	0%	-100%	0%	0	1,500
2875	C St.		0	1,747	Increment	1,747	0%	0%	-100%	0%	0	1,700
2876	C St.		0	2,383	Increment	2,383	0%	0%	-100%	0%	0	2,400
2877	LN St		0	2,389	Increment	2,389	0%	0%	-100%	0%	0	2,400
2878	LN St		0	2,001	Increment	2,001	0%	0%	-100%	0%	0	2,000
2879	C St.		0	2,580	Increment	2,580	0%	0%	-100%	0%	0	2,600
2880	C St.		0	4,468	Increment	4,468	0%	0%	-100%	0%	0	4,500
2881	LQ St		0	4,812	Increment	4,812	0%	0%	-100%	0%	0	4,800
2882	LQ St		0	3,448	Increment	3,448	0%	0%	-100%	0%	0	3,400
2883	C St.		0	5,330	Increment	5,330	0%	0%	-100%	0%	0	5,300
2884	C St.		0	6,175	Increment	6,175	0%	0%	-100%	0%	0	6,200
2885	Trabuco		0	834	Increment	834	0%	0%	-100%	0%	0	800
2886	Trabuco Rd.		0	4,076	Increment	4,076	0%	0%	-100%	0%	0	4,100
2887	LM St		0	1,050	Increment	1,050	0%	0%	-100%	0%	0	1,100
2888	LM St		0	1,084	Increment	1,084	0%	0%	-100%	0%	0	1,100
2889	LN St		0	2,220	Increment	2,220	0%	0%	-100%	0%	0	2,200

Scenario: YEAR 2015 Pend Opt 2
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2015
 Existing Validation Year: 2008
 Future Analysis Year: 2015

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % User Input	Final Growth %	Final Growth	Refined Adt
2890	LN St			0	2,192	Increment	2,192	0%	0%	-100%	0%	0	2,200
2891	LM St			0	1,074	Increment	1,074	0%	0%	-100%	0%	0	1,100
2892	LM St			0	340	Increment	340	0%	0%	-100%	0%	0	300
2893	VV St			0	544	Increment	544	0%	0%	-100%	0%	0	500
2894	VV St			0	1,327	Increment	1,327	0%	0%	-100%	0%	0	1,300
2895	C St.			0	2,383	Increment	2,383	0%	0%	-100%	0%	0	2,400
2896	C St.			0	2,364	Increment	2,364	0%	0%	-100%	0%	0	2,400
2897	VV St			0	603	Increment	603	0%	0%	-100%	0%	0	600
2898	VV St			0	541	Increment	541	0%	0%	-100%	0%	0	500
2899	O St			0	8,218	Increment	8,218	0%	0%	-100%	0%	0	8,200
2900	O St			0	9,715	Increment	9,715	0%	0%	-100%	0%	0	9,700
2901	LQ St			0	3,428	Increment	3,428	0%	0%	-100%	0%	0	3,400
2902	LQ St			0	2,424	Increment	2,424	0%	0%	-100%	0%	0	2,400
2904	O St			0	3,716	Increment	3,716	0%	0%	-100%	0%	0	3,700
2905	O St			0	0	Increment	0	0%	0%	-100%	0%	0	0
2906	LV St			0	1,699	Increment	1,699	0%	0%	-100%	0%	0	1,700
2907	LV St			0	0	Increment	0	0%	0%	-100%	0%	0	0
2909	LY St			0	3,536	Increment	3,536	0%	0%	-100%	0%	0	3,500
2910	Irvine Blvd.	19,000		20,751	32,792	Ratio	11,025	58%	58%	-100%	58%	11,025	30,000
2911	Irvine Blvd.	19,000		20,753	32,273	Ratio	10,547	56%	56%	-100%	56%	10,547	29,500
2912	LY St			0	2,156	Increment	2,156	0%	0%	-100%	0%	0	2,200
2914	LY St			0	1,738	Increment	1,738	0%	0%	-100%	0%	0	1,700
2915	Trabuco			0	435	Increment	435	0%	0%	-100%	0%	0	400
2916	A St			0	916	Increment	916	0%	0%	-100%	0%	0	900
2917	A St			0	0	Increment	0	0%	0%	-100%	0%	0	0
2918	LQ St			0	3,448	Increment	3,448	0%	0%	-100%	0%	0	3,400
2919	LQ St			0	4,365	Increment	4,365	0%	0%	-100%	0%	0	4,400
2920	Z St			0	2,765	Increment	2,765	0%	0%	-100%	0%	0	2,800

Scenario: YEAR 2015 Pend Opt 2
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2015
 Existing Validation Year: 2008
 Future Analysis Year: 2015

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/15/2014

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2921	LQ St			0	Increment	0	0%	0%	-100%	0%	0	0
2922	Z St			0	Increment	0	0%	0%	-100%	0%	0	0
2923	LQ St			0	Increment	2,765	0%	0%	-100%	0%	0	2,800
2924	B St.			0	Increment	0	0%	0%	-100%	0%	0	0
2925	B St.			0	Increment	0	0%	0%	-100%	0%	0	0
2926	LQ St			0	Increment	0	0%	0%	-100%	0%	0	0
2927	LQ St			0	Increment	0	0%	0%	-100%	0%	0	0
2928	B St.			0	Increment	0	0%	0%	-100%	0%	0	0
2929	Marine Way			0	Increment	0	0%	0%	-100%	0%	0	0
2931	Marine Way			0	Increment	0	0%	0%	-100%	0%	0	0
2933	Irvine Blvd.	19,000	21,768	45,754	Ratio	20,936	110%	110%	-100%	110%	20,936	39,900
2934	LV St			0	Increment	1,331	0%	0%	-100%	0%	0	1,300
2935	A St			0	Increment	1,329	0%	0%	-100%	0%	0	1,300
2936	Irvine Blvd.	19,000	20,751	39,553	Ratio	17,215	91%	91%	-100%	91%	17,215	36,200
2937	Z St			0	Increment	3,853	0%	0%	-100%	0%	0	3,900
2938	Z St			0	Increment	4,897	0%	0%	-100%	0%	0	4,900
2940	LN St			0	Increment	1,431	0%	0%	-100%	0%	0	1,400
2941	LN St			0	Increment	1,410	0%	0%	-100%	0%	0	1,400
2942	C St.			0	Increment	2,579	0%	0%	-100%	0%	0	2,600
2943	O St			0	Increment	5,365	0%	0%	-100%	0%	0	5,400
2945	Irvine Blvd.	19,000	21,768	41,243	Ratio	16,999	89%	89%	-100%	89%	16,999	36,000
2946	B St.			0	Increment	1,529	0%	0%	-100%	0%	0	1,500
4060	LY St			0	Increment	2,171	0%	0%	-100%	0%	0	2,200
4062	LY St			0	Increment	2,284	0%	0%	-100%	0%	0	2,300

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	87	.03*	378	.11*
NBT	3	5100	377	.07	675	.13
NBR	2	3400	325	.10	507	.15
SBL	2	3400	341	.10	94	.03
SBT	2	3400	708	.21*	392	.12*
SBR	1	1700	61	.04	125	.07
EBL	2	3400	101	.03	126	.04*
EBT	4	6800	1014	.15*	1030	.15
EBR	1	1700	223	.13	145	.09
WBL	2	3400	599	.18*	433	.13
WBT	3	5100	1242	.24	1377	.27*
WBR	1	1700	112	.07	389	.23
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.62		.59

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	248	.07*	532	.16
NBT	3	5100	488	.10	1928	.38*
NBR	f		168		462	
SBL	2	3400	154	.05	255	.08*
SBT	3	5100	2085	.41*	776	.15
SBR	1	1700	72	.04	84	.05
EBL	2	3400	79	.02	121	.04
EBT	3	5100	128	.03*	384	.08*
EBR	f		454		237	
WBL	2	3400	441	.13*	387	.11*
WBT	3	5100	630	.12	235	.05
WBR	d	1700	223	.13	251	.15
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.69		.70

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	169	.05*	839	.25*
NBT	4	6800	884	.13	2654	.39
NBR	d	1700	8	.00	57	.03
SBL	1	1700	6	.00	11	.01
SBT	4	6800	3133	.46*	1365	.20*
SBR	1	1700	339	.20	262	.15
EBL	1.5		262	{.08}*	491	{.15}*
EBT	0.5	3400	6	.08	12	.15
EBR	2	3400	502	.15	378	.11
WBL	1	1700	9	.01	7	.00
WBT	1	1700	4	.01*	8	.01*
WBR	0	0	7		4	
Right Turn Adjustment			EBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.68		.66

304 . Sand Canyon. Av. at Marine Wy.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	4	6800	790	.12	2989	.44*
NBR	d	1700	310	.18	611	.36
SBL	2	3400	0	.00	0	.00
SBT	4	6800	3650	.54*	1903	.28
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	0	.00	0	.00
WBT	0	0	0		0	
WBR	1	1700	250	.15	557	.33
Right Turn Adjustment					WBR	.33*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.59		.82

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	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	4	6800	809	.12	3215	.47*
NBR	d	1700	164	.10	349	.21
SBL	2	3400	793	.23	611	.18*
SBT	4	6800	2863	.42*	1325	.19
SBR	0	0	0		0	
EBL	2.5		371	.11*	495	.10*
EBT	0	6800	3		0	
EBR	1.5		1077	.32	275	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.21*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.80

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	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	212	.12*	102	.06*
SBT	0	0	0		0	
SBR	2	3400	319	.09	218	.06
EBL	0	0	0		0	
EBT	4	6800	1328	.20*	1468	.22
EBR	d	1700	326	.19	174	.10
WBL	1	1700	194	.11*	216	.13
WBT	3	5100	1491	.29	1962	.38*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.48		.49

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	98	.06*	220	.13*
NBT	0	0	0		0	
NBR	1	1700	226	.13	424	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1384	.41*	1366	.40
EBR	f		200		310	
WBL	0	0	0		0	
WBT	3	5100	1592	.34	2000	.42*
WBR	0	0	160		150	
Right Turn Adjustment			NBR	.07*	NBR	.10*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.59		.70

557 . O St. at C St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0.5		12	{.01}*	15	{.01}*
NBT	1.5	3400	97	.03	236	.08
NBR	0		3		11	
SBL	0.5		51		58	
SBT	1.5	3400	309	.17*	288	.13*
SBR	0		205		90	
EBL	0.5		55	{.03}*	165	{.10}*
EBT	0.5	1700	16	.05	62	.15
EBR	0		10		35	
WBL	0.5		11		17	
WBT	0.5	1700	63	.08*	44	.08*
WBR	0		57		79	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.34		.37

558 . 0 St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3400	161	.05*	159	.05*
NBT	2	3400	86	.03	342	.10
NBR	d	1700	36	.02	48	.03
SBL	1	1700	112	.07	71	.04
SBT	1	1700	355	.21*	186	.11*
SBR	2	3400	494	.15	235	.07
EBL	2	3400	80	.02*	354	.10*
EBT	3	5100	1389	.27	1211	.24
EBR	1	1700	215	.13	260	.15
WBL	2	3400	63	.02	55	.02
WBT	2	3400	1345	.40*	1787	.53*
WBR	1	1700	24	.01	74	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.73		.84

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1700	75	.04*	170	.10*
NBT	1	1700	40	.03	157	.10
NBR	0	0	4		14	
SBL	1	1700	43	.03	40	.02
SBT	1	1700	68	.04*	166	.10*
SBR	1	1700	799	.47	499	.29
EBL	2	3400	304	.09*	545	.16*
EBT	2	3400	283	.10	436	.18
EBR	0	0	47		190	
WBL	1	1700	5	.00	15	.01
WBT	2	3400	445	.14*	381	.12*
WBR	0	0	26		38	
Right Turn Adjustment			SBR	.36*	SBR	.07*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.60

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	0	.00	0	.00
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1700	1	.19*	1	.29*
SBR	0	0	318		497	
EBL	1	1700	152	.09*	476	.28*
EBT	0	0	0		0	
EBR	1	1700	1	.00	1	.00
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.33		.62

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0.5		10		10	
NBT	0	1700	0	.04*	0	.09*
NBR	0.5		61		144	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	3420	1.01*	2536	.75*
EBR	d	1700	10	.01	10	.01
WBL	1	1700	192	.11*	60	.04*
WBT	3	5100	1497	.29	2440	.48
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				1.21		.93

572 . A St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	32	.02	48	.03
NBT	1	1700	45	.03*	81	.05*
NBR	1	1700	93	.05	72	.04
SBL	2	3400	437	.13*	191	.06*
SBT	1	1700	86	.05	96	.06
SBR	d	1700	151	.09	125	.07
EBL	1	1700	69	.04	134	.08*
EBT	3	5100	1389	.27*	1087	.21
EBR	1	1700	30	.02	61	.04
WBL	1	1700	74	.04*	143	.08
WBT	3	5100	1057	.21	1817	.36*
WBR	1	1700	155	.09	345	.20
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.52		.60

626 . LY St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	0	0	14	{.01}*	33		
NBT	1	1700	7	.02	72	.09*	
NBR	0	0	9		45		
SBL	0	0	35		40	{.02}*	
SBT	1	1700	102	.11*	59	.08	
SBR	0	0	54		30		
EBL	0	0	8		40		
EBT	1	1700	106	.09	215	.17*	
EBR	0	0	36		36		
WBL	0	0	53		35	{.02}*	
WBT	1	1700	242	.18*	166	.14	
WBR	0	0	15		38		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.35		.35	

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	1	1700	75	.04*	62	.04*	
NBT	0	0	3		3		
NBR	1	1700	77	.05	140	.08	
SBL	0	0	0		0		
SBT	0	0	0		0		
SBR	0	0	0		0		
EBL	0	0	1		1		
EBT	3	5100	203	.04	460	.09*	
EBR	1	1700	50	.03	97	.06	
WBL	1	1700	90	.05	113	.07*	
WBT	2	3400	355	.10*	238	.07	
WBR	0	0	1		1		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.19		.25	

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	1	1700	77	.05*	46	.03	
NBT	1	1700	54	.03	134	.08*	
NBR	1	1700	160	.09	105	.06	
SBL	1	1700	118	.07	30	.02*	
SBT	1	1700	164	.10*	107	.06	
SBR	1	1700	57	.03	13	.01	
EBL	1	1700	5	.00	25	.01*	
EBT	3	5100	1987	.39*	1448	.28	
EBR	1	1700	22	.01	69	.04	
WBL	1	1700	43	.03*	113	.07	
WBT	3	5100	1380	.27	2215	.43*	
WBR	1	1700	11	.01	41	.02	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.62		.59	

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	2	3400	0	.00	0	.00	
NBT	1	1700	0	.00*	0	.00*	
NBR	1	1700	0	.00	0	.00	
SBL	1	1700	168	.10*	82	.05*	
SBT	1	1700	0	.02	0	.01	
SBR	0	0	41		24		
EBL	1	1700	17	.01	74	.04*	
EBT	3	5100	2122	.42*	1605	.31	
EBR	1	1700	0	.00	0	.00	
WBL	2	3400	0	.00	0	.00	
WBT	3	5100	1419	.28	2357	.46*	
WBR	1	1700	63	.04	177	.10	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.57		.60	

603 . 0 St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	14	.01*	58	.03*
NBT	2	3400	72	.03	265	.11
NBR	0	0	23		107	
SBL	1	1700	11	.01	21	.01
SBT	2	3400	374	.11*	294	.09*
SBR	0	0	6		13	
EBL	1	1700	6	.00	6	.00
EBT	1	1700	16	.05*	22	.03*
EBR	0	0	68		33	
WBL	1	1700	147	.09*	53	.03*
WBT	1	1700	21	.02	19	.02
WBR	0	0	12		9	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.31	.23	

605 . 0 St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		41	{.02}*	33	
NBT	1.5	3400	92	.05	417	.16*
NBR	0		48		96	
SBL	0.5		40		40	{.02}*
SBT	1.5	3400	574	.19*	340	.12
SBR	0		32		14	
EBL	0.5		5		32	
EBT	0.5	1700	22	.04	66	.09*
EBR	0		34		62	
WBL	0.5		182		63	{.04}*
WBT	0.5	1700	97	.18*	24	.07
WBR	0		23		34	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.44	.36	

608 . 0 St. at LV St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	2	.00	1	.00
NBT	2	3400	11	.00*	26	.01*
NBR	0	0	2		1	
SBL	1	1700	70	.04*	90	.05*
SBT	2	3400	18	.01	11	.01
SBR	0	0	13		11	
EBL	1	1700	9	.01*	26	.02*
EBT	1	1700	2	.00	3	.00
EBR	0	0	2		1	
WBL	1	1700	2	.00	1	.00
WBT	1	1700	5	.08*	3	.18*
WBR	0	0	123		307	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.18	.31	

610 . LM St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	13	{.01}*	11	{.01}*
NBT	1	1700	8	.02	21	.03
NBR	0	0	9		19	
SBL	0	0	16		19	
SBT	1	1700	49	.05*	21	.03*
SBR	0	0	25		11	
EBL	0	0	4		16	
EBT	1	1700	35	.03	122	.09*
EBR	0	0	12		16	
WBL	0	0	30		13	{.01}*
WBT	1	1700	132	.10*	57	.05
WBR	0	0	8		13	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.21	.19	

611 . LM St. at VV St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	15	{.01}*	7		
NBT	1	1700	15	.02	12	.01	
NBR	0	0	1		1		
SBL	0	0	4		5		
SBT	1	1700	8	.05*	17	.03*	
SBR	0	0	77		28		
EBL	0	0	13	{.01}*	35		
EBT	1	1700	6	.01	33	.05*	
EBR	0	0	1		12		
WBL	0	0	1		1		
WBT	1	1700	35	.02*	16	.01	
WBR	0	0	4		3		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.14		.13	

613 . C St. at LN St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	17	{.01}*	22		
NBT	1	1700	31	.04	82	.09*	
NBR	0	0	22		48		
SBL	0	0	12		18	{.01}*	
SBT	1	1700	39	.04*	55	.05	
SBR	0	0	9		9		
EBL	0	0	7		18		
EBT	1	1700	46	.04	93	.08*	
EBR	0	0	17		32		
WBL	0	0	54		34	{.02}*	
WBT	1	1700	114	.11*	49	.06	
WBR	0	0	22		19		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.21		.25	

614 . C St. at VV St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	10	{.01}*	7		
NBT	1	1700	56	.04	128	.09*	
NBR	0	0	4		14		
SBL	0	0	4		13	{.01}*	
SBT	1	1700	96	.07*	100	.07	
SBR	0	0	11		7		
EBL	0	0	3		13	{.01}*	
EBT	1	1700	2	.01	13	.02	
EBR	0	0	5		12		
WBL	0	0	19		11		
WBT	1	1700	19	.03*	6	.02*	
WBR	0	0	12		12		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.16		.18	

615 . C St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	34	{.02}*	32		
NBT	1	1700	24	.05	115	.17*	
NBR	0	0	32		139		
SBL	0	0	30		28	{.02}*	
SBT	1	1700	88	.09*	88	.07	
SBR	0	0	32		7		
EBL	0	0	7		13		
EBT	1	1700	78	.06	143	.12*	
EBR	0	0	25		49		
WBL	0	0	67		113	{.07}*	
WBT	1	1700	224	.18*	81	.13	
WBR	0	0	19		32		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.34		.43	

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	50	.03*	114	.07*
NBT	1	1700	39	.02	269	.17
NBR	0	0	1		15	
SBL	1	1700	3	.00	7	.00
SBT	1	1700	167	.15*	222	.16*
SBR	0	0	91		52	
EBL	1	1700	45	.03	54	.03
EBT	1	1700	16	.07*	28	.07*
EBR	0	0	109		98	
WBL	1	1700	14	.01*	11	.01*
WBT	1	1700	70	.04	23	.02
WBR	0	0	6		6	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.31		.36

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	4	.00	6	.00
NBT	1	1700	17	.01	140	.08*
NBR	0	0	1		1	
SBL	1	1700	1	.00	1	.00
SBT	1	1700	123	.11*	109	.07
SBR	0	0	56		15	
EBL	1	1700	13	.01*	16	.01*
EBT	0	0	3		3	
EBR	1	1700	7	.00	5	.00
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.17		.14

782 . A St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		10		16	
SBT	0	1700	0	.05*	0	.04*
SBR	0.5		83		57	
EBL	0.5		9	{.01}*	25	
EBT	0.5	1700	130	.08	224	.15*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	177	.10*	153	.09
WBR	0	0	1		5	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.21		.24

787 . Z St. at LQ St.

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0	0	2		2	
SBT	1	1700	0	.07*	0	.07*
SBR	0	0	120		124	
EBL	0	0	130	{.08}*	196	{.12}*
EBT	1	1700	0	.08	0	.12
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.20		.24

ITAM 8.4-10 Y15 Pend Opt 2 : No K-8						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	11	{.01}*	21	
NBT	1	1700	12	.02	91	.09*
NBR	0	0	7		38	
SBL	0	0	21		29	{.02}*
SBT	1	1700	108	.09*	76	.07
SBR	0	0	31		15	
EBL	0	0	12	{.01}*	22	
EBT	1	1700	62	.06	84	.08*
EBR	0	0	36		25	
WBL	0	0	46		29	{.02}*
WBT	1	1700	118	.11*	54	.06
WBR	0	0	16		27	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.27		.26

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY YEAR 2030 – WITH 2011 APPROVED PROJECT

Adt Refinement Summary

Scenario: YEAR 2030 GPN 11

Existing Model RunID: ITAM-8.4-Y2008

Future Model RunID: ITAM-8.4-Y2030

Existing Validation Year: 2008

Future Analysis Year: 2030

Project: ITAM 8.4-10

JobNumber:

Analyst: Wendy Wang

Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	9,884	26,951	Ratio	16,195	173%	173%	-100%	173%	16,195	25,600
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	9,570	27,918	Increment	18,348	150%	150%	-100%	150%	18,348	30,600
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	17,108	41,764	Ratio	16,520	144%	144%	-100%	144%	16,520	28,000
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	18,048	45,588	Increment	27,540	135%	135%	-100%	135%	27,540	48,000
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	18,622	56,633	Increment	38,011	186%	186%	-100%	186%	38,011	58,500
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	32,738	66,010	Ratio	23,697	102%	102%	-100%	102%	23,697	47,000
511	Irvine Bl. e/o Sand Canyon. Av.	16,308	20,151	42,127	Ratio	17,785	109%	109%	-100%	109%	17,785	34,100
512	Irvine Bl. e/o SR-133 NB Ramps	16,308	20,277	48,309	Ratio	22,545	138%	138%	-100%	138%	22,545	38,900
567	Trabuco Rd. w/o SR-133 SB Ramps		0	20,136	Increment	20,136	0%	0%	-100%	0%	0	20,100
603	Marine Wy. e/o Sand Canyon. Av.	4,387	120	23,883	Increment	23,763	542%	542%	-100%	542%	23,763	28,200
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	25,081	66,613	Ratio	38,204	166%	166%	-100%	166%	38,204	61,300
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,195	40,925	Ratio	21,123	113%	113%	-100%	113%	21,123	39,800
928	Irvine Bl. w/o SR-133 SB Ramps	16,800	20,151	42,127	Ratio	18,322	109%	109%	-100%	109%	18,322	35,100
962	Irvine Bl. b/w SR-133 NB and SB Ra	16,800	19,295	43,025	Ratio	20,662	123%	123%	-100%	123%	20,662	37,500
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	25,067	66,613	Ratio	33,934	166%	166%	-100%	166%	33,934	54,400
2001	Ridge Valley s/o Portola Pkwy.		74	8,091	Increment	8,017	0%	0%	-100%	0%	0	8,100
2006	Irvine Bl. e/o Ridge Valley	16,308	20,211	42,854	Ratio	18,270	112%	112%	-100%	112%	18,270	34,600
2007	Irvine Bl. w/o Ridge Valley	16,308	20,211	42,855	Ratio	18,271	112%	112%	-100%	112%	18,271	34,600
2008	O St. n/o Irvine Bl.		0	14,652	Increment	14,652	0%	0%	-100%	0%	0	14,700
2009	O St. s/o Irvine Bl.		0	10,970	Increment	10,970	0%	0%	-100%	0%	0	11,000
2012	O St. n/o Trabuco Rd.		0	20,912	Increment	20,912	0%	0%	-100%	0%	0	20,900
2013	O St. s/o Trabuco Rd.		0	12,711	Increment	12,711	0%	0%	-100%	0%	0	12,700
2014	Trabuco Rd. e/o O St.		0	11,414	Increment	11,414	0%	0%	-100%	0%	0	11,400
2015	Trabuco Rd. w/o O St.		0	30,590	Increment	30,590	0%	0%	-100%	0%	0	30,600
2016	O St. n/o Marine Wy.		0	10,941	Increment	10,941	0%	0%	-100%	0%	0	10,900

Scenario: YEAR 2030 GPN 11
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	22,575	Increment	0%	0%	-100%	0%	0	22,600
2019	Marine Wy.		120	18,591	Increment	0%	0%	-100%	0%	0	18,600
2021	A St.		0	6,411	Increment	0%	0%	-100%	0%	0	6,400
2030	LQ St	16,800	0	11,644	Increment	69%	69%	-100%	69%	11,644	28,400
2031	Irvine Bl.	16,800	21,383	52,394	Ratio	145%	145%	-100%	145%	24,364	41,200
2201	Portola Springs		79	7,118	Increment	0%	0%	-100%	0%	0	7,100
2204	Modjeska		1,187	13,507	Increment	0%	0%	-100%	0%	0	13,500
2206	Irvine Bl.	16,800	21,383	51,401	Ratio	140%	140%	-100%	140%	23,584	40,400
2568	Trabuco Pkwy.	2,282	4,551	20,136	Ratio	342%	342%	-100%	342%	7,815	10,100
2871	O St		0	9,256	Increment	0%	0%	-100%	0%	0	9,300
2872	O St		0	11,475	Increment	0%	0%	-100%	0%	0	11,500
2873	LN St		0	2,186	Increment	0%	0%	-100%	0%	0	2,200
2875	C St.		0	1,120	Increment	0%	0%	-100%	0%	0	1,100
2876	C St.		0	1,356	Increment	0%	0%	-100%	0%	0	1,400
2877	LN St		0	2,021	Increment	0%	0%	-100%	0%	0	2,000
2878	LN St		0	1,843	Increment	0%	0%	-100%	0%	0	1,800
2879	C St.		0	1,565	Increment	0%	0%	-100%	0%	0	1,600
2880	C St.		0	1,774	Increment	0%	0%	-100%	0%	0	1,800
2881	LQ St		0	6,303	Increment	0%	0%	-100%	0%	0	6,300
2882	LQ St		0	6,111	Increment	0%	0%	-100%	0%	0	6,100
2883	C St.		0	2,153	Increment	0%	0%	-100%	0%	0	2,200
2884	C St.		0	1,785	Increment	0%	0%	-100%	0%	0	1,800
2885	Trabuco		0	1,744	Increment	0%	0%	-100%	0%	0	1,700
2887	LM St		0	1,117	Increment	0%	0%	-100%	0%	0	1,100
2888	LM St		0	1,136	Increment	0%	0%	-100%	0%	0	1,100
2889	LN St		0	2,192	Increment	0%	0%	-100%	0%	0	2,200
2890	LN St		0	2,180	Increment	0%	0%	-100%	0%	0	2,200
2891	LM St		0	1,128	Increment	0%	0%	-100%	0%	0	1,100

Scenario: YEAR 2030 GPN 11
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892 LM St	s/o VV			302	Increment	302	0%	0%	-100%	0%	0	300
2893 VV St	e/o LM			591	Increment	591	0%	0%	-100%	0%	0	600
2894 VV St	w/ LM			1,522	Increment	1,522	0%	0%	-100%	0%	0	1,500
2895 C St.	n/VV			1,356	Increment	1,356	0%	0%	-100%	0%	0	1,400
2896 C St.	s/o VV			1,285	Increment	1,285	0%	0%	-100%	0%	0	1,300
2897 VV St	e/o C St			647	Increment	647	0%	0%	-100%	0%	0	600
2898 VV St	w/o C St			584	Increment	584	0%	0%	-100%	0%	0	600
2899 O St	n/o LQ St			12,227	Increment	12,227	0%	0%	-100%	0%	0	12,200
2900 O St	s/o LQ St			16,967	Increment	16,967	0%	0%	-100%	0%	0	17,000
2901 LQ St	e/o O St			5,706	Increment	5,706	0%	0%	-100%	0%	0	5,700
2904 O St	n/o LV St			12,226	Increment	12,226	0%	0%	-100%	0%	0	12,200
2905 O St	s/o LV St			11,639	Increment	11,639	0%	0%	-100%	0%	0	11,600
2906 LV St	e/o O St			990	Increment	990	0%	0%	-100%	0%	0	1,000
2909 LY St	s/o Irvine Blvd			2,623	Increment	2,623	0%	0%	-100%	0%	0	2,600
2911 Irvine Blvd.	w/o LY St	16,800	20,211	42,854	Ratio	18,822	112%	112%	-100%	112%	18,822	35,600
2912 LY St	n/o Trabuco Rd.			2,084	Increment	2,084	0%	0%	-100%	0%	0	2,100
2914 LY St	s/o Trabuco Rd.			1,453	Increment	1,453	0%	0%	-100%	0%	0	1,500
2915 Trabuco	w/o LY St			1,082	Increment	1,082	0%	0%	-100%	0%	0	1,100
2916 A St	n/o LQ St			1,733	Increment	1,733	0%	0%	-100%	0%	0	1,700
2918 LQ St	e/o A St			6,676	Increment	6,676	0%	0%	-100%	0%	0	6,700
2919 LQ St	w/o A St.			6,254	Increment	6,254	0%	0%	-100%	0%	0	6,300
2920 Z St	n/o LQ St			381	Increment	381	0%	0%	-100%	0%	0	400
2921 LQ St	e/o Z St			6,170	Increment	6,170	0%	0%	-100%	0%	0	6,200
2923 LQ St	w/o Z St			6,517	Increment	6,517	0%	0%	-100%	0%	0	6,500
2924 B St.	n/o LQ St			4,508	Increment	4,508	0%	0%	-100%	0%	0	4,500
2925 B St.	s/o LQ St			5,149	Increment	5,149	0%	0%	-100%	0%	0	5,100
2926 LQ St	e/o B St			5,665	Increment	5,665	0%	0%	-100%	0%	0	5,700
2927 LQ St	w/o B St.			6,170	Increment	6,170	0%	0%	-100%	0%	0	6,200

Scenario: YEAR 2030 GPN 11
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928 B St.	n/o Marine Wy.		0	8,164	Increment	8,164	0%	0%	-100%	0%	0	8,200
2929 Marine Way	e/o B St.		0	19,463	Increment	19,463	0%	0%	-100%	0%	0	19,500
2931 Marine Way	w/o B St.		0	19,973	Increment	19,973	0%	0%	-100%	0%	0	20,000
2933 Irvine Blvd.	e/o LQ St	16,800	21,460	59,590	Ratio	29,850	178%	178%	-100%	178%	29,850	46,700
2934 LV St	e/o C St.		0	910	Increment	910	0%	0%	-100%	0%	0	900
2935 A St	s/o LN St		0	2,385	Increment	2,385	0%	0%	-100%	0%	0	2,400
2936 Irvine Blvd.	e/o Modjeska	16,800	21,383	51,401	Ratio	23,584	140%	140%	-100%	140%	23,584	40,400
2937 Z St	n/o Irvine Blvd		0	3,892	Increment	3,892	0%	0%	-100%	0%	0	3,900
2938 Z St	s/o Irvine Blvd		0	2,256	Increment	2,256	0%	0%	-100%	0%	0	2,300
2940 LN St	w/o A St.		0	1,452	Increment	1,452	0%	0%	-100%	0%	0	1,500
2941 LN St	e/o A St		0	1,405	Increment	1,405	0%	0%	-100%	0%	0	1,400
2942 C St.	w/o O St.		0	1,740	Increment	1,740	0%	0%	-100%	0%	0	1,700
2943 O St	s/o C St.		0	8,855	Increment	8,855	0%	0%	-100%	0%	0	8,900
2945 Irvine Blvd.	e/o B St.	16,800	21,383	51,461	Ratio	23,631	141%	141%	-100%	141%	23,631	40,400
4060 LY St	n/o LQ		0	2,158	Increment	2,158	0%	0%	-100%	0%	0	2,200
4062 LY St	s/o LQ		0	2,535	Increment	2,535	0%	0%	-100%	0%	0	2,500

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	110 .03*	491 .14*		
NBT	3	5100	432 .08	828 .16		
NBR	2	3400	326 .10	520 .15		
SBL	2	3400	457 .13	111 .03		
SBT	2	3400	938 .28*	464 .14*		
SBR	1	1700	104 .06	186 .11		
EBL	2	3400	180 .05	167 .05*		
EBT	4	6800	1589 .23*	1149 .17		
EBR	1	1700	346 .20	163 .10		
WBL	2	3400	559 .16*	474 .14		
WBT	3	5100	1478 .29	1893 .37*		
WBR	1	1700	120 .07	505 .30		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.75			.75

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	222 .07*	674 .20		
NBT	3	5100	432 .08	2062 .40*		
NBR	f		172	334		
SBL	2	3400	294 .09	298 .09*		
SBT	3	5100	2280 .45*	750 .15		
SBR	1	1700	121 .07	171 .10		
EBL	2	3400	158 .05*	205 .06		
EBT	3	5100	294 .06	440 .09*		
EBR	f		601	224		
WBL	2	3400	330 .10	307 .09*		
WBT	3	5100	718 .14*	396 .08		
WBR	d	1700	251 .15	357 .21		
Right Turn Adjustment					WBR	.02*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.76		.74

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	214 .06*	645 .19		
NBT	4	6800	1021 .15	2657 .39*		
NBR	d	1700	676 .40	740 .44		
SBL	2	3400	341 .10	176 .05*		
SBT	4	6800	3022 .44*	1268 .19		
SBR	1	1700	315 .19	245 .14		
EBL	1.5		140 .08	381 {.15}*		
EBT	0.5	3400	253 .15*	115 .15		
EBR	2	3400	308 .09	223 .07		
WBL	2	3400	341 .10*	512 .15		
WBT	1.5	5100	151 {.04}	593 {.18}*		
WBR	1.5		259	406		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.80			.82

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	4	6800	1251 .18	3428 .50*		
NBR	1	1700	99 .06	264 .16		
SBL	2	3400	600 .18	456 .13*		
SBT	4	6800	2967 .44*	1552 .23		
SBR	0	0	0	0		
EBL	2.5		652 .19*	512 .10*		
EBT	0	6800	2	0		
EBR	1.5		1020 .30	318 {.00}		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Right Turn Adjustment			EBR	.11*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.78

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	1	1700	252 .15*	86 .05*		
SBT	0	0	0	0		
SBR	2	3400	198 .06	213 .06		
EBL	0	0	0	0		
EBT	4	6800	2194 .32*	1664 .24		
EBR	d	1700	186 .11	123 .07		
WBL	2	3400	154 .05*	157 .05		
WBT	3	5100	1806 .35	2637 .52*		
WBR	0	0	0	0		
Right Turn Adjustment Clearance Interval				SBR	.01*	.05*
TOTAL CAPACITY UTILIZATION			.57	.63		

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	72 .04*	174 .10*		
NBT	0	0	0	0		
NBR	1	1700	148 .09	317 .19		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	2	3400	2342 .69*	1693 .50		
EBR	f		130	200		
WBL	0	0	0	0		
WBT	3	5100	1938 .43	2666 .58*		
WBR	0	0	280	310		
Right Turn Adjustment Clearance Interval			NBR	.05*	NBR	.03*
				.05*		.05*
TOTAL CAPACITY UTILIZATION			.83	.76		

557 . O St. at C St.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		16 {.01}*	36		
NBT	1.5	3400	106 .04	416 .14*		
NBR	0		2	13		
SBL	0.5		29	24 {.01}*		
SBT	1.5	3400	518 .23*	289 .11		
SBR	0		228	68		
EBL	0.5		54 {.03}*	146 {.09}*		
EBT	0.5	1700	9 .05	42 .14		
EBR	0		18	54		
WBL	0.5		14	17		
WBT	0.5	1700	56 .07*	36 .06*		
WBR	0		41	48		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.39	.35		

558 . O St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	127 .04*	164 .05		
NBT	2	3400	95 .03	429 .13*		
NBR	d	1700	50 .03	75 .04		
SBL	1	1700	177 .10	108 .06*		
SBT	2	3400	454 .13*	176 .05		
SBR	f		445	236		
EBL	2	3400	100 .03	353 .10*		
EBT	3	5100	2192 .43*	1498 .29		
EBR	1	1700	273 .16	201 .12		
WBL	2	3400	123 .04*	73 .02		
WBT	3	5100	1858 .36	2549 .50*		
WBR	1	1700	45 .03	129 .08		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.69	.84		

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	91	.03*	336	.10*
NBT	2	3400	57	.02	367	.12
NBR	0	0	3		27	
SBL	1	1700	18	.01	45	.03
SBT	2	3400	366	.11*	287	.08*
SBR	1	1700	662	.39	550	.32
EBL	2	3400	617	.18*	684	.20*
EBT	2	3400	259	.08	448	.13
EBR	1	1700	523	.31	324	.19
WBL	1	1700	31	.02	29	.02
WBT	2	3400	517	.16*	493	.16*
WBR	0	0	36		59	
Right Turn Adjustment			SBR	.10*	SBR	.04*
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .63 .63

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	387	.11*	390	.11*
SBT	0	0	0		0	
SBR	1	1700	128	.08	241	.14
EBL	1	1700	65	.04	221	.13*
EBT	2	3400	913	.27*	650	.19
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	582	.17	889	.26*
WBR	1	1700	125	.07	489	.29
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .43 .55

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	37	.01*	159	.05
NBT	1	1700	13	.03	23	.10*
NBR	0	0	30		148	
SBL	1	1700	2	.00	6	.00
SBT	1	1700	25	.02*	18	.01
SBR	0	0	3		6	
EBL	1	1700	9	.01	4	.00
EBT	3	5100	2672	.52*	1767	.35
EBR	1	1700	223	.13	71	.04
WBL	2	3400	173	.05*	51	.02
WBT	3	5100	1874	.37	2915	.57*
WBR	0	0	7		3	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .65 .72

ITAM 8.4-10 Y30 Pend gpn11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	60	.04	85	.05
NBT	1	1700	47	.03*	107	.06*
NBR	1	1700	134	.08	140	.08
SBL	2	3400	361	.11*	227	.07*
SBT	1	1700	100	.06	89	.05
SBR	d	1700	162	.10	138	.08
EBL	1	1700	80	.05	132	.08*
EBT	3	5100	2265	.44*	1492	.29
EBR	1	1700	63	.04	68	.04
WBL	1	1700	127	.07*	153	.09
WBT	3	5100	1719	.34	2486	.49*
WBR	1	1700	163	.10	331	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.70		.75

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	40 .01*	76 .02		
NBT	1	1700	54 .03	212 .12*		
NBR	1	1700	184 .11	352 .21		
SBL	1	1700	41 .02	28 .02*		
SBT	1	1700	174 .11*	86 .05		
SBR	0	0	9	6		
EBL	1	1700	7 .00	16 .01*		
EBT	3	5100	2765 .54*	1970 .39		
EBR	1	1700	94 .06	84 .05		
WBL	2	3400	412 .12*	269 .08		
WBT	3	5100	1981 .39	2878 .56*		
WBR	1	1700	29 .02	52 .03		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.83	.76		

603 . O St. at LN St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	46 .03*	33 .02		
NBT	2	3400	100 .04	470 .16*		
NBR	0	0	23	90		
SBL	1	1700	12 .01	18 .01*		
SBT	2	3400	585 .18*	350 .11		
SBR	0	0	21	7		
EBL	1	1700	2 .00	13 .01		
EBT	1	1700	4 .02*	22 .04*		
EBR	0	0	24	46		
WBL	1	1700	91 .05*	55 .03*		
WBT	1	1700	33 .02	11 .02		
WBR	0	0	8	16		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.33	.29		

605 . O St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		154 {.09}*	96		
NBT	1.5	3400	165 .15	589 .26*		
NBR	0		187	184		
SBL	0.5		46	34 {.02}*		
SBT	1.5	3400	667 .22*	435 .14		
SBR	0		41	19		
EBL	0.5		4	28		
EBT	0.5	1700	37 .06	82 .13*		
EBR	0		59	110		
WBL	0.5		174	165 {.10}*		
WBT	0.5	1700	96 .17*	64 .16		
WBR	0		11	43		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.53	.56		

608 . O St. at LV St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	39 .02*	44 .03*		
NBT	2	3400	121 .04	643 .19		
NBR	0	0	3	15		
SBL	1	1700	12 .01	21 .01		
SBT	2	3400	643 .22*	536 .17*		
SBR	0	0	119	52		
EBL	1	1700	20 .01*	96 .06*		
EBT	1	1700	5 .02	25 .06		
EBR	0	0	36	69		
WBL	1	1700	31 .02	15 .01		
WBT	1	1700	52 .04*	14 .02*		
WBR	0	0	18	21		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.34	.33		

610 . LM St at LN St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	10 { .01}*	13		
NBT	1	1700	12 .02	29 .04*		
NBR	0	0	7	20		
SBL	0	0	17	17 { .01}*		
SBT	1	1700	57 .06*	23 .03		
SBR	0	0	26	11		
EBL	0	0	5	17		
EBT	1	1700	26 .02	103 .08*		
EBR	0	0	9	15		
WBL	0	0	24	12 { .01}*		
WBT	1	1700	94 .08*	56 .05		
WBR	0	0	13	14		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.20	.19		

611 . LM St at VV St

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	11 { .01}*	7		
NBT	1	1700	10 .01	12 .01		
NBR	0	0	1	1		
SBL	0	0	6	6		
SBT	1	1700	8 .06*	12 .03*		
SBR	0	0	81	34		
EBL	0	0	17 { .01}*	51		
EBT	1	1700	13 .02	38 .06*		
EBR	0	0	2	10		
WBL	0	0	1	1		
WBT	1	1700	38 .03*	16 .01		
WBR	0	0	4	3		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.16	.14		

613 . C St. at LN St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	12 { .01}*	18		
NBT	1	1700	25 .03	49 .05*		
NBR	0	0	13	26		
SBL	0	0	8	14 { .01}*		
SBT	1	1700	24 .02*	27 .03		
SBR	0	0	8	10		
EBL	0	0	9 { .01}*	16		
EBT	1	1700	39 .04	80 .07*		
EBR	0	0	12	17		
WBL	0	0	24	16 { .01}*		
WBT	1	1700	70 .06*	52 .05		
WBR	0	0	16	15		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.15	.19		

614 . C St. at VV St

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	9 { .01}*	6		
NBT	1	1700	37 .03	68 .05*		
NBR	0	0	4	16		
SBL	0	0	4	13 { .01}*		
SBT	1	1700	47 .04*	43 .04		
SBR	0	0	10	5		
EBL	0	0	3	10 { .01}*		
EBT	1	1700	3 .01	21 .02		
EBR	0	0	3	8		
WBL	0	0	14	9		
WBT	1	1700	24 .03*	9 .02*		
WBR	0	0	12	12		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.13	.14		

615 . C St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	22 { .01}*	28		
NBT	1	1700	12 .04	42 .06*		
NBR	0	0	26	39		
SBL	0	0	32	23 { .01}*		
SBT	1	1700	32 .05*	21 .04		
SBR	0	0	26	16		
EBL	1	1700	11 .01*	33 .02		
EBT	1	1700	226 .15	278 .18*		
EBR	0	0	24	29		
WBL	1	1700	34 .02	30 .02*		
WBT	1	1700	267 .17*	205 .14		
WBR	0	0	17	35		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.29	.32		

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	48 .03*	39 .02*		
NBT	1	1700	18 .01	37 .02		
NBR	0	0	5	4		
SBL	1	1700	11 .01	5 .00		
SBT	1	1700	26 .07*	51 .06*		
SBR	0	0	96	45		
EBL	1	1700	28 .02*	77 .05		
EBT	1	1700	74 .06	81 .10*		
EBR	0	0	20	92		
WBL	1	1700	3 .00	7 .00		
WBT	1	1700	105 .06*	57 .04		
WBR	0	0	4	6		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.23	.23		

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	8 .00	9 .01		
NBT	1	1700	33 .02	95 .06*		
NBR	0	0	0	0		
SBL	0	0	0	0		
SBT	1	1700	46 .03*	71 .04		
SBR	1	1700	82 .05	21 .01		
EBL	1	1700	27 .02*	55 .03*		
EBT	0	0	0	0		
EBR	1	1700	4 .00	19 .01		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.10	.14		

782 . A St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		137	33		
SBT	0	1700	0 .11*	0 .03*		
SBR	0.5		53	17		
EBL	0.5		9	42 { .02}*		
EBT	0.5	1700	313 .19*	307 .21		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	217 .14	273 .20*		
WBR	0	0	21	68		
Clearance Interval			.05*	.05*		
TOTAL CAPACITY UTILIZATION			.35	.30		

626 . LY St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		20 { .01}*	38		
NBT	0.5	1700	8 .03	60 .09*		
NBR	0		23	61		
SBL	0.5		46	33 { .02}*		
SBT	0.5	1700	75 .09*	36 .05		
SBR	0		40	21		
EBL	0.5		10	32		
EBT	0.5	1700	241 .17*	276 .20*		
EBR	0		43	33		
WBL	0.5		51 { .03}*	41 { .02}*		
WBT	0.5	1700	250 .18	221 .18		
WBR	0		12	38		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .35 .38

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	69 .04*	69 .04*		
NBT	0	0	0	0		
NBR	1	1700	61 .04	71 .04		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	3	5100	2319 .45*	1569 .31		
EBR	1	1700	56 .03	88 .05		
WBL	1	1700	54 .03*	72 .04		
WBT	3	5100	1891 .37	2631 .52*		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .57 .61

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	48 .03	24 .01		
NBT	1	1700	38 .02*	77 .05*		
NBR	1	1700	54 .03	30 .02		
SBL	1	1700	136 .08*	40 .02*		
SBT	1	1700	83 .05	78 .05		
SBR	1	1700	121 .07	33 .02		
EBL	1	1700	16 .01	63 .04*		
EBT	3	5100	2745 .54*	1781 .35		
EBR	1	1700	14 .01	47 .03		
WBL	1	1700	14 .01*	45 .03		
WBT	3	5100	1866 .37	2953 .58*		
WBR	1	1700	16 .01	60 .04		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .70 .74

799 . B St. at Marine Wy.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	3 .00	3 .00		
NBT	1	1700	5 .00*	5 .00*		
NBR	0	0	2	2		
SBL	1	1700	172 .10*	148 .09*		
SBT	1	1700	10 .01	10 .01		
SBR	1	1700	210 .12	212 .12		
EBL	1	1700	140 .08*	220 .13*		
EBT	2	3400	625 .18	680 .20		
EBR	0	0	0	0		
WBL	1	1700	0 .00	0 .00		
WBT	2	3400	878 .26*	985 .29*		
WBR	1	1700	156 .09	224 .13		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .49 .56

787 . Z St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		10	3		
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		11	7		
EBL	1	1700	7	.00	33	.02*
EBT	1	1700	480	.28*	267	.16
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	189	.11	353	.22*
WBR	0	0	3	17		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.34		.30	

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	19	.01*	91	.05
NBT	1	1700	15	.02	194	.15*
NBR	0	0	26		66	
SBL	1	1700	77	.05	24	.01*
SBT	1	1700	269	.19*	51	.05
SBR	0	0	54		34	
EBL	1	1700	24	.01	57	.03*
EBT	1	1700	337	.27*	173	.13
EBR	0	0	129		41	
WBL	1	1700	62	.04*	39	.02
WBT	1	1700	117	.08	228	.17*
WBR	0	0	11		53	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.56		.41

787 . Z St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		10		3	
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		11		7	
EBL	1	1700	7	.00	33	.02*
EBT	1	1700	480	.28*	267	.16
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	189	.11	353	.22*
WBR	0	0	3		17	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.34		.30

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	19	.01*	91	.05
NBT	1	1700	15	.02	194	.15*
NBR	0	0	26		66	
SBL	1	1700	77	.05	24	.01*
SBT	1	1700	269	.19*	51	.05
SBR	0	0	54		34	
EBL	1	1700	24	.01	57	.03*
EBT	1	1700	337	.27*	173	.13
EBR	0	0	129		41	
WBL	1	1700	62	.04*	39	.02
WBT	1	1700	117	.08	228	.17*
WBR	0	0	11		53	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.56		.41

629 . LY St. at LN St.

ITAM 8.4-10 Y30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	6		19	
NBT	1	1700	11	.02	55	.08*
NBR	0	0	13		56	
SBL	0	0	15		26	.02*
SBT	1	1700	68	.05*	46	.05
SBR	0	0	7		9	
EBL	0	0	6		8	
EBT	1	1700	63	.06*	69	.05*
EBR	0	0	32		14	
WBL	0	0	70	.04*	30	.02*
WBT	1	1700	67	.09	52	.06
WBR	0	0	13		17	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.20		.22

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY YEAR 2030 – WITH 2012 MODIFIED PROJECT OPTION 1

Adt Refinement Summary

Scenario: YEAR 2030 Pend Opt 1
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	27,361	Ratio	15,082	161%	161%	-100%	161%	15,082	24,500
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	28,610	Increment	18,132	148%	148%	-100%	148%	18,132	30,400
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	43,005	Ratio	15,346	134%	134%	-100%	134%	15,346	26,800
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	47,681	Increment	27,857	136%	136%	-100%	136%	27,857	48,300
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	59,382	Increment	39,000	190%	190%	-100%	190%	39,000	59,500
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	70,354	Ratio	26,085	112%	112%	-100%	112%	26,085	49,400
511	Irvine Bl.	19,000	20,323	41,219	Ratio	19,536	103%	103%	-100%	103%	19,536	38,500
512	Irvine Bl.	19,000	20,833	46,799	Ratio	23,681	125%	125%	-100%	125%	23,681	42,700
567	Trabuco Rd.		0	26,218	Increment	26,218	0%	0%	-100%	0%	0	26,200
603	Marine Wy.	4,387	120	29,776	Increment	29,656	676%	676%	-100%	676%	29,656	34,000
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	72,142	Ratio	40,361	175%	175%	-100%	175%	40,361	63,400
925	Irvine Bl.	18,659	19,098	40,896	Ratio	21,297	114%	114%	-100%	114%	21,297	40,000
928	Irvine Bl.	19,000	20,323	41,219	Ratio	19,536	103%	103%	-100%	103%	19,536	38,500
962	Irvine Bl.	19,000	19,661	41,706	Ratio	21,304	112%	112%	-100%	112%	21,304	40,300
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	72,142	Ratio	35,856	175%	175%	-100%	175%	35,856	56,300
2001	Ridge Valley		77	7,892	Increment	7,815	0%	0%	-100%	0%	0	7,900
2006	Irvine Bl.	19,000	20,753	42,965	Ratio	20,336	107%	107%	-100%	107%	20,336	39,300
2007	Irvine Bl.	19,000	20,753	42,967	Ratio	20,338	107%	107%	-100%	107%	20,338	39,300
2008	O St.		0	14,569	Increment	14,569	0%	0%	-100%	0%	0	14,600
2009	O St.		0	10,161	Increment	10,161	0%	0%	-100%	0%	0	10,200
2012	O St.		0	23,142	Increment	23,142	0%	0%	-100%	0%	0	23,100
2013	O St.		0	13,757	Increment	13,757	0%	0%	-100%	0%	0	13,800
2014	Trabuco Rd.		0	11,188	Increment	11,188	0%	0%	-100%	0%	0	11,200
2015	Trabuco Rd.		0	34,170	Increment	34,170	0%	0%	-100%	0%	0	34,200
2016	O St.		0	10,586	Increment	10,586	0%	0%	-100%	0%	0	10,600

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	27,052	Increment	27,052	0%	0%	-100%	0%	0	27,100
2019	Marine Wy.		120	24,565	Increment	24,445	0%	0%	-100%	0%	0	24,600
2021	A St.		0	5,531	Increment	5,531	0%	0%	-100%	0%	0	5,500
2030	LQ St	19,000	0	4,955	Increment	4,955	26%	26%	-100%	26%	4,955	24,000
2031	Irvine Bl.	19,000	21,695	53,265	Ratio	27,648	146%	146%	-100%	146%	27,648	46,600
2201	Portola Springs		80	6,961	Increment	6,881	0%	0%	-100%	0%	0	7,000
2204	Modjeska		1,163	13,237	Increment	12,074	0%	0%	-100%	0%	0	13,200
2206	Irvine Bl.	19,000	21,901	52,276	Ratio	26,352	139%	139%	-100%	139%	26,352	45,400
2568	Trabuco Pkwy.	2,282	4,547	26,218	Ratio	10,876	477%	477%	-100%	477%	10,876	13,200
2871	O St		0	9,389	Increment	9,389	0%	0%	-100%	0%	0	9,400
2872	O St		0	12,505	Increment	12,505	0%	0%	-100%	0%	0	12,500
2873	LN St		0	2,719	Increment	2,719	0%	0%	-100%	0%	0	2,700
2875	C St.		0	1,160	Increment	1,160	0%	0%	-100%	0%	0	1,200
2876	C St.		0	1,525	Increment	1,525	0%	0%	-100%	0%	0	1,500
2877	LN St		0	2,669	Increment	2,669	0%	0%	-100%	0%	0	2,700
2878	LN St		0	2,328	Increment	2,328	0%	0%	-100%	0%	0	2,300
2879	C St.		0	1,754	Increment	1,754	0%	0%	-100%	0%	0	1,800
2880	C St.		0	1,898	Increment	1,898	0%	0%	-100%	0%	0	1,900
2881	LQ St		0	7,111	Increment	7,111	0%	0%	-100%	0%	0	7,100
2882	LQ St		0	6,895	Increment	6,895	0%	0%	-100%	0%	0	6,900
2883	C St.		0	2,418	Increment	2,418	0%	0%	-100%	0%	0	2,400
2884	C St.		0	1,467	Increment	1,467	0%	0%	-100%	0%	0	1,500
2885	Trabuco		0	2,608	Increment	2,608	0%	0%	-100%	0%	0	2,600
2887	LM St		0	1,218	Increment	1,218	0%	0%	-100%	0%	0	1,200
2888	LM St		0	1,224	Increment	1,224	0%	0%	-100%	0%	0	1,200
2889	LN St		0	2,720	Increment	2,720	0%	0%	-100%	0%	0	2,700
2890	LN St		0	2,716	Increment	2,716	0%	0%	-100%	0%	0	2,700
2891	LM St		0	1,216	Increment	1,216	0%	0%	-100%	0%	0	1,200

Scenario: YEAR 2030 Pend Opt 1
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892 LM St	s/o VV		0	257	Increment	257	0%	0%	-100%	0%	0	300
2893 VV St	e/o LM		0	596	Increment	596	0%	0%	-100%	0%	0	600
2894 VV St	w/ LM		0	1,633	Increment	1,633	0%	0%	-100%	0%	0	1,600
2895 C St.	n/VV		0	1,525	Increment	1,525	0%	0%	-100%	0%	0	1,500
2896 C St.	s/o VV		0	1,440	Increment	1,440	0%	0%	-100%	0%	0	1,400
2897 VV St	e/o C St		0	639	Increment	639	0%	0%	-100%	0%	0	600
2898 VV St	w/o C St		0	588	Increment	588	0%	0%	-100%	0%	0	600
2899 O St	n/o LQ St		0	13,654	Increment	13,654	0%	0%	-100%	0%	0	13,700
2900 O St	s/o LQ St		0	16,656	Increment	16,656	0%	0%	-100%	0%	0	16,700
2901 LQ St	e/o O St		0	6,187	Increment	6,187	0%	0%	-100%	0%	0	6,200
2904 O St	n/o LV St		0	11,653	Increment	11,653	0%	0%	-100%	0%	0	11,700
2905 O St	s/o LV St		0	11,072	Increment	11,072	0%	0%	-100%	0%	0	11,100
2906 LV St	e/o O St		0	1,198	Increment	1,198	0%	0%	-100%	0%	0	1,200
2909 LY St	s/o Irvine Blvd		0	2,462	Increment	2,462	0%	0%	-100%	0%	0	2,500
2911 Irvine Blvd.	w/o LY St	19,000	20,753	42,965	Ratio	20,336	107%	107%	-100%	107%	20,336	39,300
2912 LY St	n/o Trabuco Rd.		0	2,436	Increment	2,436	0%	0%	-100%	0%	0	2,400
2914 LY St	s/o Trabuco Rd.		0	2,259	Increment	2,259	0%	0%	-100%	0%	0	2,300
2915 Trabuco	w/o LY St		0	1,890	Increment	1,890	0%	0%	-100%	0%	0	1,900
2916 A St	n/o LQ St		0	1,292	Increment	1,292	0%	0%	-100%	0%	0	1,300
2918 LQ St	e/o A St		0	7,019	Increment	7,019	0%	0%	-100%	0%	0	7,000
2919 LQ St	w/o A St.		0	7,127	Increment	7,127	0%	0%	-100%	0%	0	7,100
2920 Z St	n/o LQ St		0	394	Increment	394	0%	0%	-100%	0%	0	400
2921 LQ St	e/o Z St		0	6,340	Increment	6,340	0%	0%	-100%	0%	0	6,300
2923 LQ St	w/o Z St		0	6,714	Increment	6,714	0%	0%	-100%	0%	0	6,700
2924 B St.	n/o LQ St		0	3,598	Increment	3,598	0%	0%	-100%	0%	0	3,600
2925 B St.	s/o LQ St		0	3,731	Increment	3,731	0%	0%	-100%	0%	0	3,700
2926 LQ St	e/o B St		0	5,898	Increment	5,898	0%	0%	-100%	0%	0	5,900
2927 LQ St	w/o B St.		0	6,340	Increment	6,340	0%	0%	-100%	0%	0	6,300

Scenario: YEAR 2030 Pend Opt 1
 Existing Model RunID: ITAM-8.4-Y2008
 Future Model RunID: ITAM-8.4-Y2030
 Existing Validation Year: 2008
 Future Analysis Year: 2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Wendy Wang
 Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928	B St.		0	10,155	Increment	10,155	0%	0%	-100%	0%	0	10,200
2929	Marine Way		0	20,222	Increment	20,222	0%	0%	-100%	0%	0	20,200
2931	Marine Way		0	27,202	Increment	27,202	0%	0%	-100%	0%	0	27,200
2933	Irvine Blvd.	19,000	21,768	55,068	Ratio	29,066	153%	153%	-100%	153%	29,066	48,100
2934	LV St		0	1,323	Increment	1,323	0%	0%	-100%	0%	0	1,300
2935	A St		0	1,849	Increment	1,849	0%	0%	-100%	0%	0	1,800
2936	Irvine Blvd.	19,000	21,695	52,276	Ratio	26,782	141%	141%	-100%	141%	26,782	45,800
2937	Z St		0	3,745	Increment	3,745	0%	0%	-100%	0%	0	3,700
2938	Z St		0	2,265	Increment	2,265	0%	0%	-100%	0%	0	2,300
2940	LN St		0	1,636	Increment	1,636	0%	0%	-100%	0%	0	1,600
2941	LN St		0	1,615	Increment	1,615	0%	0%	-100%	0%	0	1,600
2942	C St.		0	1,614	Increment	1,614	0%	0%	-100%	0%	0	1,600
2943	O St		0	8,832	Increment	8,832	0%	0%	-100%	0%	0	8,800
2945	Irvine Blvd.	19,000	21,695	50,278	Ratio	25,032	132%	132%	-100%	132%	25,032	44,000
4060	LY St		0	2,420	Increment	2,420	0%	0%	-100%	0%	0	2,400
4062	LY St		0	2,891	Increment	2,891	0%	0%	-100%	0%	0	2,900

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	111	.03*	486	.14*
NBT	3	5100	426	.08	797	.16
NBR	2	3400	272	.08	497	.15
SBL	2	3400	415	.12	108	.03
SBT	2	3400	930	.27*	463	.14*
SBR	1	1700	114	.07	189	.11
EBL	2	3400	195	.06*	178	.05*
EBT	4	6800	1453	.21	1215	.18
EBR	1	1700	344	.20	175	.10
WBL	2	3400	555	.16	451	.13
WBT	3	5100	1625	.32*	1835	.36*
WBR	1	1700	130	.08	475	.28
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.73		.74

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	210	.06*	658	.19
NBT	3	5100	375	.07	1945	.38*
NBR	f		206		447	
SBL	2	3400	338	.10	363	.11*
SBT	3	5100	2229	.44*	706	.14
SBR	1	1700	110	.06	152	.09
EBL	2	3400	138	.04*	198	.06
EBT	3	5100	355	.07	603	.12*
EBR	f		615		238	
WBL	2	3400	456	.13	398	.12*
WBT	3	5100	921	.18*	482	.09
WBR	d	1700	296	.17	421	.25
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.77		.78

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	266	.08*	644	.19
NBT	4	6800	955	.14	2627	.39*
NBR	d	1700	677	.40	1080	.64
SBL	2	3400	321	.09	241	.07*
SBT	4	6800	3059	.45*	1319	.19
SBR	1	1700	368	.22	230	.14
EBL	1.5		125	.07	337	{.14}*
EBT	0.5	3400	241	.14*	151	.14
EBR	2	3400	315	.09	222	.07
WBL	2	3400	636	.19*	593	.17
WBT	1.5	5100	325	{.10}	618	{.19}*
WBR	1.5		420		419	
Right Turn Adjustment					NBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.91		.95

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	1230	.18	3630	.53*
NBR	1	1700	90	.05	236	.14
SBL	2	3400	607	.18	495	.15*
SBT	4	6800	3298	.49*	1627	.24
SBR	0	0	0		0	
EBL	2.5		670	.20*	626	.12*
EBT	0	6800	2		0	
EBR	1.5		1062	.31	315	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.85		.85

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	197	.12*	97	.06*
SBT	0	0	0		0	
SBR	2	3400	243	.07	221	.07
EBL	0	0	0		0	
EBT	4	6800	1942	.29	1713	.25
EBR	d	1700	185	.11	123	.07
WBL	2	3400	118	.03	157	.05
WBT	3	5100	1936	.38*	2509	.49*
WBR	0	0	0		0	
Right Turn Adjustment Clearance Interval					SBR	.01* .05*
TOTAL CAPACITY UTILIZATION						.55 .61

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	51	.03*	171	.10*
NBT	0	0	0		0	
NBR	1	1700	89	.05	320	.19
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	2011	.59*	1760	.52
EBR	f		120		200	
WBL	0	0	0		0	
WBT	3	5100	2019	.45	2549	.55*
WBR	0	0	300		260	
Right Turn Adjustment Clearance Interval					NBR	.02* .05*
					NBR	.07* .05*
TOTAL CAPACITY UTILIZATION						.69 .77

557 . O St. at C St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		36	{.02}*	41	
NBT	1.5	3400	163	.06	358	.12*
NBR	0		5		15	
SBL	0.5		24		23	{.01}*
SBT	1.5	3400	503	.21*	263	.10
SBR	0		178		66	
EBL	0.5		43	{.03}*	143	
EBT	0.5	1700	11	.05	52	.15*
EBR	0		26		68	
WBL	0.5		20		19	{.01}*
WBT	0.5	1700	66	.07*	42	.06
WBR	0		34		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION						.38 .34

558 . O St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	119	.04*	130	.04
NBT	2	3400	115	.03	393	.12*
NBR	d	1700	66	.04	76	.04
SBL	1	1700	216	.13	131	.08*
SBT	2	3400	436	.13*	173	.05
SBR	f		390		225	
EBL	2	3400	81	.02	344	.10*
EBT	3	5100	1918	.38*	1613	.32
EBR	1	1700	188	.11	174	.10
WBL	2	3400	146	.04*	72	.02
WBT	3	5100	2001	.39	2435	.48*
WBR	1	1700	63	.04	143	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION						.64 .83

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	150	.04*	403	.12*
NBT	2	3400	68	.02	394	.12
NBR	0	0	3		28	
SBL	1	1700	18	.01	40	.02
SBT	2	3400	346	.10*	276	.08*
SBR	1	1700	905	.53	602	.35
EBL	2	3400	634	.19*	779	.23*
EBT	2	3400	239	.07	502	.15
EBR	1	1700	540	.32	362	.21
WBL	1	1700	24	.01	23	.01
WBT	2	3400	556	.17*	435	.14*
WBR	0	0	28		47	
Right Turn Adjustment			SBR	.24*	SBR	.04*
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .79 .66

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	297	.09*	375	.11*
SBT	0	0	0		0	
SBR	1	1700	158	.09	276	.16
EBL	1	1700	58	.03*	287	.17*
EBT	2	3400	913	.27	975	.29
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	1182	.35*	984	.29*
WBR	1	1700	142	.08	393	.23
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .52 .62

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	83	.02*	146	.04*
NBT	1	1700	18	.04	21	.06
NBR	0	0	51		83	
SBL	1	1700	2	.00	4	.00
SBT	1	1700	24	.02*	20	.02*
SBR	0	0	4		6	
EBL	1	1700	7	.00	6	.00
EBT	3	5100	2547	.50*	1833	.36
EBR	1	1700	206	.12	133	.08
WBL	2	3400	140	.04*	57	.02
WBT	3	5100	2104	.41	2918	.57*
WBR	0	0	5		3	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .63 .68

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	45	.03	58	.03
NBT	1	1700	39	.02*	79	.05*
NBR	1	1700	118	.07	115	.07
SBL	2	3400	394	.12*	268	.08*
SBT	1	1700	62	.04	74	.04
SBR	d	1700	148	.09	133	.08
EBL	1	1700	79	.05	130	.08*
EBT	3	5100	2108	.41*	1687	.33
EBR	1	1700	31	.02	53	.03
WBL	1	1700	96	.06*	143	.08
WBT	3	5100	1957	.38	2429	.48*
WBR	1	1700	202	.12	350	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.66		.74

626 . LY St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		22	{.01}*	40	
NBT	0.5	1700	8	.03	76	.11*
NBR	0		21		74	
SBL	0.5		48		34	{.02}*
SBT	0.5	1700	101	.12*	37	.05
SBR	0		51		18	
EBL	0.5		8		38	
EBT	0.5	1700	191	.14	332	.24*
EBR	0		42		40	
WBL	0.5		77		52	{.03}*
WBT	0.5	1700	357	.26*	222	.19
WBR	0		14		46	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.44		.45

641 . Thomas at Rockfield

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	1	1700	0	.00*	0	.00*
NBR	0	0	0		0	
SBL	1	1700	49	.03*	352	.21*
SBT	1	1700	0	.00	0	.00
SBR	0	0	4		4	
EBL	1	1700	30	.02*	40	.02*
EBT	2	3400	21	.01	131	.04
EBR	d	1700	0	.00	0	.00
WBL	1	1700	0	.00	0	.00
WBT	2	3400	176	.10*	82	.05*
WBR	0	0	300	.18	89	.05
Right Turn Adjustment			WBR	.06*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.26		.33

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	62	.04*	69	.04*
NBT	0	0	0		0	
NBR	1	1700	58	.03	81	.05
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	2112	.41*	1739	.34
EBR	1	1700	49	.03	72	.04
WBL	1	1700	61	.04*	58	.03
WBT	3	5100	2098	.41	2541	.50*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.54		.59

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	47	.03	21	.01
NBT	1	1700	31	.02*	64	.04*
NBR	1	1700	52	.03	25	.01
SBL	1	1700	124	.07*	41	.02*
SBT	1	1700	94	.06	73	.04
SBR	1	1700	112	.07	36	.02
EBL	1	1700	13	.01	69	.04*
EBT	3	5100	2644	.52*	1978	.39
EBR	1	1700	16	.01	48	.03
WBL	1	1700	20	.01*	39	.02
WBT	3	5100	2141	.42	2948	.58*
WBR	1	1700	16	.01	57	.03
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.67		.73

799 . B St. at Marine Wy.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	100 .06	60 .04*		
NBT	1	1700	38 .04*	57 .04		
NBR	0	0	22	14		
SBL	1	1700	118 .07*	59 .03		
SBT	1	1700	54 .03	50 .03*		
SBR	1	1700	533 .31	266 .16		
EBL	1	1700	144 .08*	433 .25*		
EBT	2	3400	783 .24	918 .29		
EBR	0	0	35	82		
WBL	1	1700	11 .01	18 .01		
WBT	2	3400	993 .29*	954 .28*		
WBR	1	1700	39 .02	101 .06		
Right Turn Adjustment Clearance Interval			SBR .20*			.05*
						.05*
TOTAL CAPACITY UTILIZATION				.73		.65

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	56 .02*	34 .01		
NBT	1	1700	58 .03	150 .09*		
NBR	1	1700	160 .09	102 .06		
SBL	1	1700	79 .05	34 .02*		
SBT	1	1700	114 .08*	76 .05		
SBR	0	0	28	11		
EBL	1	1700	8 .00	39 .02*		
EBT	3	5100	2692 .53*	1958 .38		
EBR	1	1700	32 .02	60 .04		
WBL	2	3400	94 .03*	124 .04		
WBT	3	5100	2106 .41	2870 .56*		
WBR	1	1700	24 .01	81 .05		
Right Turn Adjustment Clearance Interval			NBR .02*			.05*
						.05*
TOTAL CAPACITY UTILIZATION				.73		.74

603 . O St. at LN St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	18 .01*	56 .03		
NBT	2	3400	160 .06	434 .17*		
NBR	0	0	35	137		
SBL	1	1700	11 .01	17 .01*		
SBT	2	3400	607 .18*	343 .10		
SBR	0	0	8	8		
EBL	1	1700	7 .00	6 .00		
EBT	1	1700	14 .05*	17 .03*		
EBR	0	0	79	37		
WBL	1	1700	135 .08*	84 .05*		
WBT	1	1700	13 .01	16 .02		
WBR	0	0	12	14		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.37		.31

605 . O St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		59 {.03}*	37		
NBT	1.5	3400	202 .11	637 .26*		
NBR	0		120	208		
SBL	0.5		60	63 {.04}*		
SBT	1.5	3400	833 .27*	429 .15		
SBR	0		33	13		
EBL	0.5		3	24		
EBT	0.5	1700	19 .03	70 .09*		
EBR	0		27	56		
WBL	0.5		259	148 {.09}*		
WBT	0.5	1700	88 .22*	40 .15		
WBR	0		35	63		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.57		.53

608 . O St. at LV St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	37 .02*	47 .03		
NBT	2	3400	132 .04	575 .18*		
NBR	0	0	3	28		
SBL	1	1700	11 .01	32 .02*		
SBT	2	3400	591 .21*	524 .17		
SBR	0	0	135	44		
EBL	1	1700	29 .02*	84 .05*		
EBT	1	1700	6 .02	40 .07		
EBR	0	0	36	75		
WBL	1	1700	24 .01	24 .01		
WBT	1	1700	48 .04*	19 .03*		
WBR	0	0	19	26		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.34	.33		

610 . LM St. at LN St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	9 {.01}*	16		
NBT	1	1700	6 .01	31 .04*		
NBR	0	0	5	24		
SBL	0	0	16	19 {.01}*		
SBT	1	1700	56 .06*	20 .03		
SBR	0	0	28	13		
EBL	0	0	6	21		
EBT	1	1700	39 .04	137 .10*		
EBR	0	0	16	17		
WBL	0	0	28	14 {.01}*		
WBT	1	1700	123 .09*	81 .07		
WBR	0	0	8	18		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.21	.21		

611 . LM St. at VV St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	6	7		
NBT	1	1700	4 .01	12 .01		
NBR	0	0	1	1		
SBL	0	0	6	4		
SBT	1	1700	8 .06*	10 .03*		
SBR	0	0	87	36		
EBL	0	0	14 {.01}*	55		
EBT	1	1700	14 .02	35 .06*		
EBR	0	0	2	10		
WBL	0	0	1	1		
WBT	1	1700	37 .02*	17 .01		
WBR	0	0	3	3		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.14	.14		

613 . C St. at LN St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	12 {.01}*	22		
NBT	1	1700	22 .03	48 .07*		
NBR	0	0	16	42		
SBL	0	0	6	18 {.01}*		
SBT	1	1700	21 .02*	23 .03		
SBR	0	0	4	10		
EBL	0	0	6	16		
EBT	1	1700	38 .04	120 .09*		
EBR	0	0	16	18		
WBL	0	0	63	19 {.01}*		
WBT	1	1700	104 .11*	68 .06		
WBR	0	0	22	16		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.19	.23		

614 . C St. at VV St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	8	7		
NBT	1	1700	39 .03	90 .07*		
NBR	0	0	2	14		
SBL	0	0	5	10 {.01}*		
SBT	1	1700	81 .06*	45 .04		
SBR	0	0	15	5		
EBL	0	0	7	13 {.01}*		
EBT	1	1700	5 .01	18 .02		
EBR	0	0	8	9		
WBL	0	0	15	8		
WBT	1	1700	23 .03*	9 .02*		
WBR	0	0	12	13		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .14 .16

615 . C St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	22 {.01}*	31		
NBT	1	1700	10 .03	54 .08*		
NBR	0	0	18	55		
SBL	0	0	37	24 {.01}*		
SBT	1	1700	49 .08*	22 .04		
SBR	0	0	44	14		
EBL	1	1700	11 .01*	37 .02		
EBT	1	1700	174 .12	331 .21*		
EBR	0	0	26	32		
WBL	1	1700	44 .03	36 .02*		
WBT	1	1700	364 .23*	205 .14		
WBR	0	0	19	39		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .38 .37

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	49 .03*	33 .02*		
NBT	1	1700	17 .01	40 .03		
NBR	0	0	5	7		
SBL	1	1700	15 .01	12 .01		
SBT	1	1700	23 .09*	48 .06*		
SBR	0	0	136	60		
EBL	1	1700	28 .02*	96 .06*		
EBT	1	1700	80 .06	150 .12		
EBR	0	0	14	62		
WBL	1	1700	3 .00	10 .01		
WBT	1	1700	145 .09*	107 .07*		
WBR	0	0	6	14		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .28 .26

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	17 .01*	63 .04*		
NBT	1	1700	23 .01	117 .07		
NBR	0	0	0	0		
SBL	0	0	0	0		
SBT	1	1700	57 .03*	93 .05*		
SBR	1	1700	113 .07	27 .02		
EBL	1	1700	37 .02*	53 .03*		
EBT	0	0	0	0		
EBR	1	1700	13 .01	97 .06		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .13 .17

782 . A St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		39	38		
SBT	0	1700	0 .05*	0 .04*		
SBR	0.5		42	31		
EBL	0.5		7	21		
EBT	0.5	1700	266 .16	387 .24*		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	374 .23*	283 .18		
WBR	0	0	13	19		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.33	.33		

787 . Z St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		4	4		
SBT	0	1700	0 .01*	0 .01*		
SBR	0.5		5	6		
EBL	1	1700	5 .00	13 .01		
EBT	1	1700	321 .19	366 .22*		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	350 .21*	304 .18		
WBR	0	0	5	7		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.27	.28		

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	40 .02*	52 .03*		
NBT	1	1700	68 .06	69 .07		
NBR	0	0	31	42		
SBL	1	1700	33 .02	40 .02		
SBT	1	1700	63 .06*	83 .08*		
SBR	0	0	43	51		
EBL	1	1700	56 .03*	50 .03		
EBT	1	1700	218 .16	267 .19*		
EBR	0	0	46	60		
WBL	1	1700	42 .02	37 .02*		
WBT	1	1700	270 .19*	208 .14		
WBR	0	0	49	31		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.35	.37		

782 . A St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	0	0	0	0			
NBT	0	0	0	0			
NBR	0	0	0	0			
SBL	0.5		39	38			
SBT	0	1700	0	.05*	0	.04*	
SBR	0.5		42	31			
EBL	0.5		7	21			
EBT	0.5	1700	266	.16	387	.24*	
EBR	0	0	0	0			
WBL	0	0	0	0			
WBT	1	1700	374	.23*	283	.18	
WBR	0	0	13	19			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.33	.33			

787 . Z St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	0	0	0	0			
NBT	0	0	0	0			
NBR	0	0	0	0			
SBL	0.5		4	4			
SBT	0	1700	0	.01*	0	.01*	
SBR	0.5		5	6			
EBL	1	1700	5	.00	13	.01	
EBT	1	1700	321	.19	366	.22*	
EBR	0	0	0	0			
WBL	0	0	0	0			
WBT	1	1700	350	.21*	304	.18	
WBR	0	0	5	7			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.27	.28			

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	1	1700	40	.02*	52	.03*	
NBT	1	1700	68	.06	69	.07	
NBR	0	0	31		42		
SBL	1	1700	33	.02	40	.02	
SBT	1	1700	63	.06*	83	.08*	
SBR	0	0	43		51		
EBL	1	1700	56	.03*	50	.03	
EBT	1	1700	218	.16	267	.19*	
EBR	0	0	46		60		
WBL	1	1700	42	.02	37	.02*	
WBT	1	1700	270	.19*	208	.14	
WBR	0	0	49		31		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.35	.37			

629 . LY St. at LN St.

ITAM 8.4-10 Y30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	0	0	9 { .01 }*	26			
NBT	1	1700	9	.02	78	.09*	
NBR	0	0	11	56			
SBL	0	0	17	22 { .01 }*			
SBT	1	1700	79	.06*	38	.04	
SBR	0	0	14	10			
EBL	0	0	6	17			
EBT	1	1700	62	.06	112	.09*	
EBR	0	0	33	22			
WBL	0	0	88	31 { .02 }*			
WBT	1	1700	137	.14*	74	.08	
WBR	0	0	15	25			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.26	.26			

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY YEAR 2030 – WITH 2012 MODIFIED PROJECT OPTION 2

Adt Refinement Summary

Scenario: YEAR 2030 Perid Opt 2

Project: ITAM 8.4-10

Existing Model RunID: ITAM-8.4-Y2008

JobNumber:

Future Model RunID: ITAM-8.4-Y2030

Analyst: Wendy Wang

Existing Validation Year: 2008

Date: 4/7/2010

Future Analysis Year: 2030

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	27,389	Ratio	15,107	161%	161%	-100%	161%	15,107	24,500
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	28,671	Increment	18,193	148%	148%	-100%	148%	18,193	30,500
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	43,075	Ratio	15,390	134%	134%	-100%	134%	15,390	26,900
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	47,659	Increment	27,835	136%	136%	-100%	136%	27,835	48,300
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	59,355	Increment	38,973	190%	190%	-100%	190%	38,973	59,400
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	70,330	Ratio	26,068	112%	112%	-100%	112%	26,068	49,400
511	Irvine Bl. e/o Sand Canyon. Av.	19,000	20,323	40,990	Ratio	19,322	102%	102%	-100%	102%	19,322	38,300
512	Irvine Bl. e/o SR-133 NB Ramps	19,000	20,833	46,549	Ratio	23,453	123%	123%	-100%	123%	23,453	42,500
567	Trabuco Rd. w/o SR-133 SB Ramps		0	26,176	Increment	26,176	0%	0%	-100%	0%	0	26,200
603	Marine Wy. e/o Sand Canyon. Av.	4,387	120	29,805	Increment	29,685	677%	677%	-100%	677%	29,685	34,100
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	72,182	Ratio	40,396	175%	175%	-100%	175%	40,396	63,500
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,098	40,708	Ratio	21,113	113%	113%	-100%	113%	21,113	39,800
928	Irvine Bl. w/o SR-133 SB Ramps	19,000	20,323	40,990	Ratio	19,322	102%	102%	-100%	102%	19,322	38,300
962	Irvine Bl. b/w SR-133 NB and SB Ramps	19,000	19,661	41,497	Ratio	21,102	111%	111%	-100%	111%	21,102	40,100
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	72,182	Ratio	35,887	175%	175%	-100%	175%	35,887	56,400
2001	Ridge Valley s/o Portola Pkwy.		77	7,841	Increment	7,764	0%	0%	-100%	0%	0	7,800
2006	Irvine Bl. e/o Ridge Valley	19,000	20,753	42,799	Ratio	20,184	106%	106%	-100%	106%	20,184	39,200
2007	Irvine Bl. w/o Ridge Valley	19,000	20,753	42,799	Ratio	20,184	106%	106%	-100%	106%	20,184	39,200
2008	O St. n/o Irvine Bl.		0	14,542	Increment	14,542	0%	0%	-100%	0%	0	14,500
2009	O St. s/o Irvine Bl.		0	9,900	Increment	9,900	0%	0%	-100%	0%	0	9,900
2012	O St. n/o Trabuco Rd.		0	21,619	Increment	21,619	0%	0%	-100%	0%	0	21,600
2013	O St. s/o Trabuco Rd.		0	13,282	Increment	13,282	0%	0%	-100%	0%	0	13,300
2014	Trabuco Rd. e/o O St.		0	12,356	Increment	12,356	0%	0%	-100%	0%	0	12,400
2015	Trabuco Rd. w/o O St.		0	34,432	Increment	34,432	0%	0%	-100%	0%	0	34,400
2016	O St. n/o Marine Wy.		0	10,634	Increment	10,634	0%	0%	-100%	0%	0	10,600

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018 Marine Wy.	e/o O St.		0	27,078	Increment	0%	0%	-100%	0%	0	27,100
2019 Marine Wy.	w/o O St.		120	24,554	Increment	0%	0%	-100%	0%	0	24,600
2021 A St.	s/o Irvine Bl.		0	5,560	Increment	0%	0%	-100%	0%	0	5,600
2030 LQ St	s/o Irvine Blvd	19,000	0	4,926	Increment	26%	26%	-100%	26%	4,926	23,900
2031 Irvine Bl.	e/o Z St	19,000	21,695	53,220	Ratio	145%	145%	-100%	145%	27,609	46,600
2201 Portola Springs	s/o Portola Pkwy.		80	6,968	Increment	0%	0%	-100%	0%	0	7,000
2204 Modjeska	n/o Irvine Bl.		1,163	13,214	Increment	0%	0%	-100%	0%	0	13,200
2206 Irvine Bl.	w/o Modjeska	19,000	21,901	52,204	Ratio	138%	138%	-100%	138%	26,289	45,300
2568 Trabuco Pkwy.	e/o Sand Canyon. Av.	2,282	4,547	26,176	Ratio	476%	476%	-100%	476%	10,855	13,100
2871 O St	n/o LN		0	8,670	Increment	0%	0%	-100%	0%	0	8,700
2872 O St	s/o LN		0	11,874	Increment	0%	0%	-100%	0%	0	11,900
2873 LN St	e/o O St		0	2,912	Increment	0%	0%	-100%	0%	0	2,900
2875 C St.	n/ LN		0	1,597	Increment	0%	0%	-100%	0%	0	1,600
2876 C St.	s/o LN		0	2,024	Increment	0%	0%	-100%	0%	0	2,000
2877 LN St	e/o C St		0	2,806	Increment	0%	0%	-100%	0%	0	2,800
2878 LN St	w/o C St		0	2,553	Increment	0%	0%	-100%	0%	0	2,600
2879 C St.	n/ LQ St		0	2,348	Increment	0%	0%	-100%	0%	0	2,300
2880 C St.	s/o LQ St		0	3,662	Increment	0%	0%	-100%	0%	0	3,700
2881 LQ St	e/o C St		0	6,843	Increment	0%	0%	-100%	0%	0	6,800
2882 LQ St	w/ C St		0	5,746	Increment	0%	0%	-100%	0%	0	5,700
2883 C St.	n/ Trabuco		0	4,427	Increment	0%	0%	-100%	0%	0	4,400
2884 C St.	s/o Trabuco Rd.		0	5,511	Increment	0%	0%	-100%	0%	0	5,500
2885 Trabuco	e/o C St		0	2,123	Increment	0%	0%	-100%	0%	0	2,100
2887 LM St	n/o LN		0	1,296	Increment	0%	0%	-100%	0%	0	1,300
2888 LM St	s/o LN		0	1,302	Increment	0%	0%	-100%	0%	0	1,300
2889 LN St	e/o LM		0	2,909	Increment	0%	0%	-100%	0%	0	2,900
2890 LN St	w/o LM		0	2,905	Increment	0%	0%	-100%	0%	0	2,900
2891 LM St	n/o VV		0	1,294	Increment	0%	0%	-100%	0%	0	1,300

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892	LM St		0	249	Increment	249	0%	0%	-100%	0%	0	200
2893	VV St		0	585	Increment	585	0%	0%	-100%	0%	0	600
2894	VV St		0	1,740	Increment	1,740	0%	0%	-100%	0%	0	1,700
2895	C St.		0	2,024	Increment	2,024	0%	0%	-100%	0%	0	2,000
2896	C St.		0	1,995	Increment	1,995	0%	0%	-100%	0%	0	2,000
2897	VV St		0	640	Increment	640	0%	0%	-100%	0%	0	600
2898	VV St		0	581	Increment	581	0%	0%	-100%	0%	0	600
2899	O St		0	13,113	Increment	13,113	0%	0%	-100%	0%	0	13,100
2900	O St		0	16,830	Increment	16,830	0%	0%	-100%	0%	0	16,800
2901	LQ St		0	5,738	Increment	5,738	0%	0%	-100%	0%	0	5,700
2904	O St		0	11,137	Increment	11,137	0%	0%	-100%	0%	0	11,100
2905	O St		0	11,126	Increment	11,126	0%	0%	-100%	0%	0	11,100
2906	LV St		0	1,823	Increment	1,823	0%	0%	-100%	0%	0	1,800
2909	LY St		0	2,611	Increment	2,611	0%	0%	-100%	0%	0	2,600
2911	Irvine Blvd.	19,000	20,753	42,799	Ratio	20,184	106%	106%	-100%	106%	20,184	39,200
2912	LY St		0	3,063	Increment	3,063	0%	0%	-100%	0%	0	3,100
2914	LY St		0	3,056	Increment	3,056	0%	0%	-100%	0%	0	3,100
2915	Trabuco		0	1,717	Increment	1,717	0%	0%	-100%	0%	0	1,700
2916	A St		0	1,273	Increment	1,273	0%	0%	-100%	0%	0	1,300
2918	LQ St		0	7,034	Increment	7,034	0%	0%	-100%	0%	0	7,000
2919	LQ St		0	7,119	Increment	7,119	0%	0%	-100%	0%	0	7,100
2920	Z St		0	422	Increment	422	0%	0%	-100%	0%	0	400
2921	LQ St		0	6,339	Increment	6,339	0%	0%	-100%	0%	0	6,300
2923	LQ St		0	6,737	Increment	6,737	0%	0%	-100%	0%	0	6,700
2924	B St.		0	3,594	Increment	3,594	0%	0%	-100%	0%	0	3,600
2925	B St.		0	3,735	Increment	3,735	0%	0%	-100%	0%	0	3,700
2926	LQ St		0	5,882	Increment	5,882	0%	0%	-100%	0%	0	5,900
2927	LQ St		0	6,339	Increment	6,339	0%	0%	-100%	0%	0	6,300

Scenario: YEAR 2030 Pend Opt 2
Existing Model RunID: ITAM-8.4-Y2008
Future Model RunID: ITAM-8.4-Y2030
Existing Validation Year: 2008
Future Analysis Year: 2030

Project: ITAM 8.4-10
JobNumber:
Analyst: Wendy Wang
Date: 4/7/2010

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928 B St.	n/o Marine Wy.		0	10,118	Increment	10,118	0%	0%	-100%	0%	0	10,100
2929 Marine Way	e/o B St.		0	20,254	Increment	20,254	0%	0%	-100%	0%	0	20,300
2931 Marine Way	w/o B St.		0	27,206	Increment	27,206	0%	0%	-100%	0%	0	27,200
2933 Irvine Blvd.	e/o LQ St	19,000	21,768	55,003	Ratio	29,009	153%	153%	-100%	153%	29,009	48,000
2934 LV St	e/o C St.		0	1,761	Increment	1,761	0%	0%	-100%	0%	0	1,800
2935 A St	s/o LN St		0	1,833	Increment	1,833	0%	0%	-100%	0%	0	1,800
2936 Irvine Blvd.	e/o Modjeska	19,000	21,695	52,204	Ratio	26,719	141%	141%	-100%	141%	26,719	45,700
2937 Z St	n/o Irvine Blvd		0	3,747	Increment	3,747	0%	0%	-100%	0%	0	3,700
2938 Z St	s/o Irvine Blvd		0	2,296	Increment	2,296	0%	0%	-100%	0%	0	2,300
2940 LN St	w/o A St.		0	1,608	Increment	1,608	0%	0%	-100%	0%	0	1,600
2941 LN St	e/o A St		0	1,582	Increment	1,582	0%	0%	-100%	0%	0	1,600
2942 C St.	w/o O St.		0	2,109	Increment	2,109	0%	0%	-100%	0%	0	2,100
2943 O St	s/o C St.		0	8,159	Increment	8,159	0%	0%	-100%	0%	0	8,200
2945 Irvine Blvd.	e/o B St.	19,000	21,695	50,245	Ratio	25,003	132%	132%	-100%	132%	25,003	44,000
4060 LY St	n/o LQ		0	2,356	Increment	2,356	0%	0%	-100%	0%	0	2,400
4062 LY St	s/o LQ		0	3,073	Increment	3,073	0%	0%	-100%	0%	0	3,100

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	110	.03*	491	.14*
NBT	3	5100	434	.09	805	.16
NBR	2	3400	275	.08	493	.15
SBL	2	3400	414	.12	107	.03
SBT	2	3400	934	.27*	464	.14*
SBR	1	1700	111	.07	190	.11
EBL	2	3400	196	.06*	181	.05*
EBT	4	6800	1451	.21	1210	.18
EBR	1	1700	346	.20	177	.10
WBL	2	3400	560	.16	449	.13
WBT	3	5100	1589	.31*	1829	.36*
WBR	1	1700	131	.08	474	.28
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.74

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	207	.06*	659	.19
NBT	3	5100	372	.07	1949	.38*
NBR	f		203		442	
SBL	2	3400	339	.10	368	.11*
SBT	3	5100	2227	.44*	706	.14
SBR	1	1700	110	.06	156	.09
EBL	2	3400	141	.04*	201	.06
EBT	3	5100	358	.07	604	.12*
EBR	f		620		235	
WBL	2	3400	453	.13	391	.12*
WBT	3	5100	923	.18*	486	.10
WBR	d	1700	297	.17	424	.25
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.77		.78

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	270	.08*	647	.19
NBT	4	6800	954	.14	2621	.39*
NBR	d	1700	682	.40	1083	.64
SBL	2	3400	318	.09	237	.07*
SBT	4	6800	3059	.45*	1316	.19
SBR	1	1700	367	.22	226	.13
EBL	1.5		124	.07	335	{.14}*
EBT	0.5	3400	240	.14*	150	.14
EBR	2	3400	317	.09	225	.07
WBL	2	3400	635	.19*	599	.18
WBT	1.5	5100	323	{.10}	616	{.18}*
WBR	1.5		412		415	
Right Turn Adjustment					NBR	.12*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.91		.95

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	1239	.18	3632	.53*
NBR	1	1700	92	.05	240	.14
SBL	2	3400	607	.18	500	.15*
SBT	4	6800	3298	.49*	1626	.24
SBR	0	0	0		0	
EBL	2.5		664	.20*	618	.12*
EBT	0	6800	2		0	
EBR	1.5		1059	.31	314	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.85		.85

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	1	1700	199 .12*	97 .06*		
SBT	0	0	0	0		
SBR	2	3400	241 .07	221 .07		
EBL	0	0	0	0		
EBT	4	6800	1944 .29	1703 .25		
EBR	d	1700	184 .11	123 .07		
WBL	2	3400	119 .04	157 .05		
WBT	3	5100	1913 .38*	2499 .49*		
WBR	0	0	0	0		
Right Turn Adjustment Clearance Interval				SBR .01* .05*		.05*
TOTAL CAPACITY UTILIZATION			.55	.61		

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	51 .03*	172 .10*		
NBT	0	0	0	0		
NBR	1	1700	88 .05	320 .19		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	2	3400	2006 .59*	1750 .51		
EBR	f		120	200		
WBL	0	0	0	0		
WBT	3	5100	2013 .45	2538 .55*		
WBR	0	0	301	250		
Right Turn Adjustment Clearance Interval			NBR .02* .05*	NBR .06* .05*		
TOTAL CAPACITY UTILIZATION			.69	.76		

557 . O St. at C St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		33 {.02}*	35		
NBT	1.5	3400	163 .06	320 .11*		
NBR	0		8	16		
SBL	0.5		36	26 {.02}*		
SBT	1.5	3400	478 .20*	248 .10		
SBR	0		182	65		
EBL	0.5		42 {.02}*	141		
EBT	0.5	1700	16 .05	58 .15*		
EBR	0		23	61		
WBL	0.5		20	21 {.01}*		
WBT	0.5	1700	66 .07*	50 .07		
WBR	0		35	49		
Clearance Interval				.05* .05*		
TOTAL CAPACITY UTILIZATION			.36	.34		

558 . O St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	119 .04*	122 .04		
NBT	2	3400	116 .03	384 .11*		
NBR	d	1700	66 .04	72 .04		
SBL	1	1700	219 .13	133 .08*		
SBT	2	3400	432 .13*	171 .05		
SBR	f		393	226		
EBL	2	3400	82 .02	352 .10*		
EBT	3	5100	1925 .38*	1610 .32		
EBR	1	1700	185 .11	170 .10		
WBL	2	3400	142 .04*	71 .02		
WBT	3	5100	1988 .39	2431 .48*		
WBR	1	1700	63 .04	148 .09		
Clearance Interval				.05* .05*		
TOTAL CAPACITY UTILIZATION			.64	.82		

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	144	.04*	425	.13*
NBT	2	3400	53	.02	366	.12
NBR	0	0	4		30	
SBL	1	1700	27	.02	43	.03
SBT	2	3400	337	.10*	255	.08*
SBR	1	1700	901	.53	585	.34
EBL	2	3400	524	.15*	732	.22*
EBT	2	3400	369	.11	557	.16
EBR	1	1700	530	.31	364	.21
WBL	1	1700	23	.01	20	.01
WBT	2	3400	565	.17*	440	.14*
WBR	0	0	22		42	
Right Turn Adjustment			SBR	.28*	SBR	.04*
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .79 .66

560 . 0 St. at Marine Wy.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	294	.09*	383	.11*
SBT	0	0	0		0	
SBR	1	1700	151	.09	278	.16
EBL	1	1700	57	.03*	285	.17*
EBT	2	3400	916	.27	977	.29
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	1179	.35*	982	.29*
WBR	1	1700	143	.08	395	.23
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .52 .62

563 . B St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	84	.02*	146	.04*
NBT	1	1700	18	.04	21	.06
NBR	0	0	50		83	
SBL	1	1700	2	.00	4	.00
SBT	1	1700	24	.02*	20	.02*
SBR	0	0	4		6	
EBL	1	1700	7	.00	6	.00
EBT	3	5100	2547	.50*	1833	.36
EBR	1	1700	208	.12	133	.08
WBL	2	3400	138	.04*	57	.02
WBT	3	5100	2093	.41	2918	.57*
WBR	0	0	5		3	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .63 .68

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	43	.03	58	.03
NBT	1	1700	39	.02*	80	.05*
NBR	1	1700	119	.07	114	.07
SBL	2	3400	397	.12*	264	.08*
SBT	1	1700	62	.04	77	.05
SBR	d	1700	146	.09	134	.08
EBL	1	1700	79	.05	132	.08*
EBT	3	5100	2119	.42*	1683	.33
EBR	1	1700	31	.02	55	.03
WBL	1	1700	97	.06*	147	.09
WBT	3	5100	1945	.38	2428	.48*
WBR	1	1700	202	.12	349	.21
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION				.67		.74
----------------------------	--	--	--	-----	--	-----

603 . 0 St. at LN St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	18 .01*	64 .04		
NBT	2	3400	159 .06	392 .17*		
NBR	0	0	35	170		
SBL	1	1700	10 .01	20 .01*		
SBT	2	3400	568 .17*	320 .10		
SBR	0	0	8	8		
EBL	1	1700	7 .00	5 .00		
EBT	1	1700	15 .05*	20 .03*		
EBR	0	0	78	36		
WBL	1	1700	143 .08*	84 .05*		
WBT	1	1700	14 .02	18 .02		
WBR	0	0	13	13		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .36 .31

605 . 0 St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		66 {.04}*	43		
NBT	1.5	3400	200 .11	642 .27*		
NBR	0		113	233		
SBL	0.5		50	50 {.03}*		
SBT	1.5	3400	819 .26*	436 .15		
SBR	0		29	9		
EBL	0.5		3	21		
EBT	0.5	1700	17 .03	67 .09*		
EBR	0		31	65		
WBL	0.5		270	140 {.08}*		
WBT	0.5	1700	85 .22*	29 .13		
WBR	0		27	46		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .52

608 . 0 St. at LV St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	47 .03*	46 .03		
NBT	2	3400	117 .04	564 .18*		
NBR	0	0	8	38		
SBL	1	1700	21 .01	28 .02*		
SBT	2	3400	584 .21*	500 .16		
SBR	0	0	123	34		
EBL	1	1700	20 .01*	74 .04		
EBT	1	1700	11 .03	44 .07*		
EBR	0	0	39	82		
WBL	1	1700	27 .02	47 .03*		
WBT	1	1700	50 .04*	30 .04		
WBR	0	0	13	42		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .34 .35

610 . LM St. at LN St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	9 {.01}*	16		
NBT	1	1700	6 .01	30 .04*		
NBR	0	0	5	24		
SBL	0	0	15	19 {.01}*		
SBT	1	1700	56 .06*	18 .03		
SBR	0	0	29	13		
EBL	0	0	5	23		
EBT	1	1700	40 .04	168 .12*		
EBR	0	0	15	19		
WBL	0	0	29	13 {.01}*		
WBT	1	1700	132 .10*	81 .07		
WBR	0	0	9	17		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .22 .23

611 . LM St. at VV St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	6	7
NBT	1	1700	4 .01	12 .01
NBR	0	0	1	1
SBL	0	0	6	4
SBT	1	1700	8 .06*	10 .03*
SBR	0	0	87	36
EBL	0	0	14 {.01}*	55
EBT	1	1700	14 .02	35 .06*
EBR	0	0	2	10
WBL	0	0	1	1
WBT	1	1700	37 .02*	17 .01
WBR	0	0	3	3
Clearance Interval			.05*	.05*

TOTAL CAPACITY UTILIZATION .14 .14

613 . C St. at LN St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	15	25
NBT	1	1700	29 .04*	65 .08*
NBR	0	0	17	39
SBL	0	0	9 {.01}*	21 {.01}*
SBT	1	1700	33 .03	35 .04
SBR	0	0	8	14
EBL	0	0	8	25
EBT	1	1700	44 .04	140 .11*
EBR	0	0	18	25
WBL	0	0	49	20 {.01}*
WBT	1	1700	107 .11*	71 .07
WBR	0	0	23	20
Clearance Interval			.05*	.05*

TOTAL CAPACITY UTILIZATION .21 .26

614 . C St. at VV St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	9 {.01}*	7
NBT	1	1700	48 .04	109 .08*
NBR	0	0	3	15
SBL	0	0	5	10 {.01}*
SBT	1	1700	84 .06*	63 .05
SBR	0	0	12	6
EBL	0	0	3	13 {.01}*
EBT	1	1700	2 .01	17 .02
EBR	0	0	4	10
WBL	0	0	17	9
WBT	1	1700	21 .03*	8 .02*
WBR	0	0	12	12
Clearance Interval			.05*	.05*

TOTAL CAPACITY UTILIZATION .15 .17

615 . C St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	28 {.02}*	39
NBT	1	1700	17 .05	90 .13*
NBR	0	0	35	94
SBL	0	0	37	33 {.02}*
SBT	1	1700	73 .08*	45 .05
SBR	0	0	30	14
EBL	1	1700	9 .01*	30 .02
EBT	1	1700	149 .11	274 .18*
EBR	0	0	33	40
WBL	1	1700	84 .05	56 .03*
WBT	1	1700	311 .20*	158 .12
WBR	0	0	23	39
Clearance Interval			.05*	.05*

TOTAL CAPACITY UTILIZATION .36 .41

617 . C St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	64 .04*	127 .07*		
NBT	1	1700	23 .02	167 .11		
NBR	0	0	3	26		
SBL	1	1700	5 .00	12 .01		
SBT	1	1700	139 .16*	100 .09*		
SBR	0	0	126	58		
EBL	1	1700	42 .02*	82 .05		
EBT	1	1700	43 .10	112 .13*		
EBR	0	0	126	106		
WBL	1	1700	19 .01	14 .01*		
WBT	1	1700	155 .09*	75 .05		
WBR	0	0	6	11		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.36	.35		

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	13 .01*	65 .04*		
NBT	1	1700	27 .02	162 .10		
NBR	0	0	0	0		
SBL	0	0	0	0		
SBT	1	1700	108 .06*	127 .07*		
SBR	1	1700	131 .08	15 .01		
EBL	1	1700	35 .02*	28 .02*		
EBT	0	0	0	0		
EBR	1	1700	15 .01	93 .05		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.14	.18		

782 . A St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		34	41		
SBT	0	1700	0 .04*	0 .04*		
SBR	0.5		36	29		
EBL	0.5		7	20		
EBT	0.5	1700	266 .16	389 .24*		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	374 .23*	281 .18		
WBR	0	0	13	20		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.32	.33		

787 . Z St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		4	4		
SBT	0	1700	0 .01*	0 .01*		
SBR	0.5		5	7		
EBL	1	1700	5 .00	21 .01		
EBT	1	1700	321 .19	366 .22*		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	350 .21*	303 .18		
WBR	0	0	5	9		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.27	.28		

626 . LY St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0.5		21	{.01}*	35		
NBT	0.5	1700	8	.03	67	.11*	
NBR	0		21		88		
SBL	0.5		51		32	{.02}*	
SBT	0.5	1700	108	.12*	35	.05	
SBR	0		50		13		
EBL	0.5		8		29		
EBT	0.5	1700	187	.14	330	.24*	
EBR	0		46		42		
WBL	0.5		86		63	{.04}*	
WBT	0.5	1700	348	.26*	212	.19	
WBR	0		14		44		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.44		.46	

637 . Sterling at Muirlands Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	0	.00	0	.00	
NBT	1	1700	0	.00	0	.00	
NBR	0	0	0		0		
SBL	1	1700	6	.00	26	.02	
SBT	1	1700	0	.03*	0	.07*	
SBR	0	0	43		125		
EBL	1	1700	149	.09*	51	.03	
EBT	2	3400	254	.07	984	.29*	
EBR	0	0	0		0		
WBL	1	1700	0	.00	0	.00	
WBT	2	3400	577	.18*	395	.12	
WBR	0	0	31		19		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.35		.41	

640 . Thomas at Muirlands Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	43	.03*	105	.06*	
NBT	1	1700	30	.02	5	.00	
NBR	d	1700	4	.00	11	.01	
SBL	1	1700	10	.01	12	.01	
SBT	1	1700	6	.00*	9	.01*	
SBR	d	1700	4	.00	64	.04	
EBL	1	1700	19	.01*	4	.00	
EBT	2	3400	156	.05	858	.25*	
EBR	d	1700	65	.04	83	.05	
WBL	1	1700	29	.02	1	.00	
WBT	2	3400	573	.17*	235	.07	
WBR	d	1700	11	.01	1	.00	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.26		.37	

641 . Thomas at Rockfield

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	0		0		
NBT	1	1700	0	.00*	0	.00*	
NBR	0	0	0		0		
SBL	1	1700	49	.03*	353	.21*	
SBT	1	1700	0	.00	0	.00	
SBR	0	0	4		3		
EBL	1	1700	30	.02*	37	.02*	
EBT	2	3400	21	.01	133	.04	
EBR	d	1700	0	.00	0	.00	
WBL	1	1700	0	.00	0	.00	
WBT	2	3400	176	.10*	81	.05*	
WBR	0	0	300	.18	90	.05	
Right Turn Adjustment			WBR	.06*			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.26		.33	

627 . LY St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	62 .04*	68 .04*		
NBT	0	0	0	0		
NBR	1	1700	58 .03	83 .05		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	3	5100	2122 .42*	1737 .34		
EBR	1	1700	49 .03	76 .04		
WBL	1	1700	61 .04*	64 .04		
WBT	3	5100	2078 .41	2542 .50*		
WBR	0	0	0	0		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .55 .59

790 . Z St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	45 .03	24 .01		
NBT	1	1700	36 .02*	69 .04*		
NBR	1	1700	49 .03	28 .02		
SBL	1	1700	124 .07*	40 .02*		
SBT	1	1700	94 .06	76 .04		
SBR	1	1700	112 .07	34 .02		
EBL	1	1700	16 .01	66 .04*		
EBT	3	5100	2647 .52*	1971 .39		
EBR	1	1700	16 .01	51 .03		
WBL	1	1700	19 .01*	43 .03		
WBT	3	5100	2133 .42	2943 .58*		
WBR	1	1700	19 .01	55 .03		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .67 .73

799 . B St. at Marine Wy.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	102 .06	59 .03		
NBT	1	1700	35 .03*	57 .04*		
NBR	0	0	23	14		
SBL	1	1700	121 .07*	61 .04*		
SBT	1	1700	54 .03	50 .03		
SBR	1	1700	529 .31	264 .16		
EBL	1	1700	137 .08*	432 .25*		
EBT	2	3400	789 .24	918 .29		
EBR	0	0	35	82		
WBL	1	1700	11 .01	18 .01		
WBT	2	3400	994 .29*	951 .28*		
WBR	1	1700	38 .02	102 .06		
Right Turn Adjustment			SBR	.21*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 .66

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	55 .02*	32 .01		
NBT	1	1700	58 .03	147 .09*		
NBR	1	1700	161 .09	98 .06		
SBL	1	1700	79 .05	34 .02*		
SBT	1	1700	114 .08*	76 .05		
SBR	0	0	27	11		
EBL	1	1700	8 .00	40 .02*		
EBT	3	5100	2695 .53*	1958 .38		
EBR	1	1700	31 .02	60 .04		
WBL	2	3400	95 .03*	124 .04		
WBT	3	5100	2092 .41	2866 .56*		
WBR	1	1700	24 .01	83 .05		
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 .74

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	1	1700	41 .02*	52 .03*
NBT	1	1700	68 .06	69 .07
NBR	0	0	31	42
SBL	1	1700	32 .02	40 .02
SBT	1	1700	64 .06*	83 .08*
SBR	0	0	43	51
EBL	1	1700	54 .03*	50 .03
EBT	1	1700	217 .16	267 .19*
EBR	0	0	49	60
WBL	1	1700	46 .03	37 .02*
WBT	1	1700	266 .18*	208 .14
WBR	0	0	48	31
Clearance Interval			.05*	.05*
TOTAL CAPACITY UTILIZATION			.34	.37

798 . B St. at LQ St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	41	.02*	52	.03*
NBT	1	1700	68	.06	69	.07
NBR	0	0	31		42	
SBL	1	1700	32	.02	40	.02
SBT	1	1700	64	.06*	83	.08*
SBR	0	0	43		51	
EBL	1	1700	54	.03*	50	.03
EBT	1	1700	217	.16	267	.19*
EBR	0	0	49		60	
WBL	1	1700	46	.03	37	.02*
WBT	1	1700	266	.18*	208	.14
WBR	0	0	48		31	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.34	.37	

629 . LY St. at LN St.

ITAM 8.4-10 Y30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	9	{.01}*	23	
NBT	1	1700	10	.02	72	.08*
NBR	0	0	12		44	
SBL	0	0	16		22	{.01}*
SBT	1	1700	83	.07*	36	.04
SBR	0	0	13		12	
EBL	0	0	6		21	
EBT	1	1700	62	.06	117	.09*
EBR	0	0	34		21	
WBL	0	0	92		26	{.02}*
WBT	1	1700	128	.14*	77	.08
WBR	0	0	14		28	
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.27	.25	

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY POST 2030 – WITH 2011 APPROVED PROJECT

Adt Refinement Summary

Scenario: Post 2030 Pending GPN 11
 Existing Model RunID: ITAM-8.4-2008
 Future Model RunID: ITAM-8.4-P2030
 Existing Validation Year: 2008
 Future Analysis Year: Post-2030

Project: ITAM 8.4-10
 JobNumber: 7151
 Analyst: Beth Dennis
 Date: 2/1/2011

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	9,884	30,313	Ratio	207%	207%	-100%	207%	28,800
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	9,570	30,110	Increment	167%	167%	-100%	167%	32,800
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	17,108	44,219	Ratio	158%	158%	-100%	158%	29,600
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	18,048	48,087	Increment	147%	147%	-100%	147%	50,500
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	18,622	60,749	Increment	206%	206%	-100%	206%	62,600
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	32,738	73,262	Ratio	124%	124%	-100%	124%	52,200
511	Irvine Bl. e/o Sand Canyon. Av.	16,308	20,151	40,259	Ratio	100%	100%	-100%	100%	32,600
512	Irvine Bl. e/o SR-133 NB Ramps	16,308	20,277	48,225	Ratio	138%	138%	-100%	138%	38,800
567	Trabuco Rd. w/o SR-133 SB Ramps		0	19,829	Increment	0%	0%	-100%	0%	19,800
603	Marine Wy. e/o Sand Canyon. Av.	4,387	120	23,944	Increment	543%	543%	-100%	543%	28,200
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	25,081	72,014	Ratio	187%	187%	-100%	187%	66,200
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,195	40,840	Ratio	113%	113%	-100%	113%	39,700
928	Irvine Bl. w/o SR-133 SB Ramps	16,800	20,151	40,259	Ratio	100%	100%	-100%	100%	33,600
962	Irvine Bl. b/w SR-133 NB and SB Ra	16,800	19,295	42,474	Ratio	120%	120%	-100%	120%	37,000
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	25,067	72,014	Ratio	187%	187%	-100%	187%	58,800
2001	Ridge Valley s/o Portola Pkwy.		74	9,956	Increment	0%	0%	-100%	0%	10,000
2006	Irvine Bl. e/o Ridge Valley	16,308	20,211	41,493	Ratio	105%	105%	-100%	105%	33,500
2007	Irvine Bl. w/o Ridge Valley	16,308	20,211	41,494	Ratio	105%	105%	-100%	105%	33,500
2008	O St. n/o Irvine Bl.		0	16,740	Increment	0%	0%	-100%	0%	16,700
2009	O St. s/o Irvine Bl.		0	11,607	Increment	0%	0%	-100%	0%	11,600
2012	O St. n/o Trabuco Rd.		0	20,323	Increment	0%	0%	-100%	0%	20,300
2013	O St. s/o Trabuco Rd.		0	12,655	Increment	0%	0%	-100%	0%	12,700
2014	Trabuco Rd. e/o O St.		0	11,436	Increment	0%	0%	-100%	0%	11,400
2015	Trabuco Rd. w/o O St.		0	30,290	Increment	0%	0%	-100%	0%	30,300
2016	O St. n/o Marine Wy.		0	10,882	Increment	0%	0%	-100%	0%	10,900

Scenario: Post 2030 Pending GPN 11
 Existing Model RunID: ITAM-8.4-2008
 Future Model RunID: ITAM-8.4-P2030
 Existing Validation Year: 2008
 Future Analysis Year: Post-2030

Project: ITAM 8.4-10
 JobNumber: 7151
 Analyst: Beth Dennis
 Date: 2/1/2011

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth %	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.		0	22,592	Increment	0%	0%	0%	-100%	0%	0	22,600
2019	Marine Wy.		120	18,657	Increment	0%	0%	0%	-100%	0%	0	18,700
2021	A St.		0	6,916	Increment	0%	0%	0%	-100%	0%	0	6,900
2030	LQ St	16,800	0	11,731	Increment	70%	70%	70%	-100%	70%	11,731	28,500
2031	Irvine Bl.	16,800	21,383	49,873	Ratio	133%	133%	133%	-100%	133%	22,384	39,200
2201	Portola Springs		79	6,602	Increment	0%	0%	0%	-100%	0%	0	6,600
2204	Modjeska		1,187	14,142	Increment	0%	0%	0%	-100%	0%	0	14,100
2206	Irvine Bl.	16,800	21,383	48,919	Ratio	129%	129%	129%	-100%	129%	21,634	38,400
2568	Trabuco Pkwy.	2,282	4,551	19,829	Ratio	336%	336%	336%	-100%	336%	7,661	9,900
2871	O St		0	9,378	Increment	0%	0%	0%	-100%	0%	0	9,400
2872	O St		0	11,497	Increment	0%	0%	0%	-100%	0%	0	11,500
2873	LN St		0	2,179	Increment	0%	0%	0%	-100%	0%	0	2,200
2875	C St.		0	1,232	Increment	0%	0%	0%	-100%	0%	0	1,200
2876	C St.		0	1,489	Increment	0%	0%	0%	-100%	0%	0	1,500
2877	LN St		0	2,013	Increment	0%	0%	0%	-100%	0%	0	2,000
2878	LN St		0	1,804	Increment	0%	0%	0%	-100%	0%	0	1,800
2879	C St.		0	1,655	Increment	0%	0%	0%	-100%	0%	0	1,700
2880	C St.		0	2,014	Increment	0%	0%	0%	-100%	0%	0	2,000
2881	LQ St		0	6,324	Increment	0%	0%	0%	-100%	0%	0	6,300
2882	LQ St		0	5,995	Increment	0%	0%	0%	-100%	0%	0	6,000
2883	C St.		0	2,419	Increment	0%	0%	0%	-100%	0%	0	2,400
2884	C St.		0	2,081	Increment	0%	0%	0%	-100%	0%	0	2,100
2885	Trabuco		0	1,729	Increment	0%	0%	0%	-100%	0%	0	1,700
2887	LM St		0	1,082	Increment	0%	0%	0%	-100%	0%	0	1,100
2888	LM St		0	1,097	Increment	0%	0%	0%	-100%	0%	0	1,100
2889	LN St		0	2,172	Increment	0%	0%	0%	-100%	0%	0	2,200
2890	LN St		0	2,163	Increment	0%	0%	0%	-100%	0%	0	2,200
2891	LM St		0	1,089	Increment	0%	0%	0%	-100%	0%	0	1,100

Scenario: Post 2030 Pending GPN 11
 Existing Model RunID: ITAM-8.4-2008
 Future Model RunID: ITAM-8.4-P2030
 Existing Validation Year: 2008
 Future Analysis Year: Post-2030

Project: ITAM 8.4-10
 JobNumber: 7151
 Analyst: Beth Dennis
 Date: 2/1/2011

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892	LM St			310	Increment	310	0%	0%	-100%	0%	0	300
2893	W St		0	573	Increment	573	0%	0%	-100%	0%	0	600
2894	W St		0	1,462	Increment	1,462	0%	0%	-100%	0%	0	1,500
2895	C St.		0	1,489	Increment	1,489	0%	0%	-100%	0%	0	1,500
2896	C St.		0	1,403	Increment	1,403	0%	0%	-100%	0%	0	1,400
2897	W St		0	637	Increment	637	0%	0%	-100%	0%	0	600
2898	W St		0	574	Increment	574	0%	0%	-100%	0%	0	600
2899	O St		0	12,149	Increment	12,149	0%	0%	-100%	0%	0	12,100
2900	O St		0	16,479	Increment	16,479	0%	0%	-100%	0%	0	16,500
2901	LQ St		0	5,614	Increment	5,614	0%	0%	-100%	0%	0	5,600
2904	O St		0	12,170	Increment	12,170	0%	0%	-100%	0%	0	12,200
2905	O St		0	11,652	Increment	11,652	0%	0%	-100%	0%	0	11,700
2906	LV St		0	979	Increment	979	0%	0%	-100%	0%	0	1,000
2909	LY St		0	2,469	Increment	2,469	0%	0%	-100%	0%	0	2,500
2911	Irvine Blvd.	16,800	20,211	41,493	Ratio	17,690	105%	105%	-100%	105%	17,690	34,500
2912	LY St		0	1,742	Increment	1,742	0%	0%	-100%	0%	0	1,700
2914	LY St		0	1,102	Increment	1,102	0%	0%	-100%	0%	0	1,100
2915	Trabuco		0	1,082	Increment	1,082	0%	0%	-100%	0%	0	1,100
2916	A St		0	1,983	Increment	1,983	0%	0%	-100%	0%	0	2,000
2918	LQ St		0	6,784	Increment	6,784	0%	0%	-100%	0%	0	6,800
2919	LQ St		0	6,128	Increment	6,128	0%	0%	-100%	0%	0	6,100
2920	Z St		0	299	Increment	299	0%	0%	-100%	0%	0	300
2921	LQ St		0	6,390	Increment	6,390	0%	0%	-100%	0%	0	6,400
2923	LQ St		0	6,622	Increment	6,622	0%	0%	-100%	0%	0	6,600
2924	B St.		0	4,500	Increment	4,500	0%	0%	-100%	0%	0	4,500
2925	B St.		0	5,132	Increment	5,132	0%	0%	-100%	0%	0	5,100
2926	LQ St		0	5,891	Increment	5,891	0%	0%	-100%	0%	0	5,900
2927	LQ St		0	6,390	Increment	6,390	0%	0%	-100%	0%	0	6,400

Scenario: Post 2030 Pending GPN 11
 Existing Model Run/D: ITAM-8.4-2008
 Future Model Run/D: ITAM-8.4-P2030
 Existing Validation Year: 2008
 Future Analysis Year: Post-2030

Project: ITAM 8.4-10
 Job Number: 7151
 Analyst: Beth Dennis
 Date: 2/1/2011

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928	B St.			7,809	Increment	7,809	0%	0%	-100%	0%	0	7,800
2929	Marine Way			19,205	Increment	19,205	0%	0%	-100%	0%	0	19,200
2931	Marine Way			19,793	Increment	19,793	0%	0%	-100%	0%	0	19,800
2933	Irvine Blvd.	16,800	21,460	58,314	Ratio	28,851	172%	172%	-100%	172%	28,851	45,700
2934	LV St			624	Increment	624	0%	0%	-100%	0%	0	600
2935	A St			2,688	Increment	2,688	0%	0%	-100%	0%	0	2,700
2936	Irvine Blvd.			48,919	Ratio	21,634	129%	129%	-100%	129%	21,634	38,400
2937	Z St			3,697	Increment	3,697	0%	0%	-100%	0%	0	3,700
2938	Z St			2,197	Increment	2,197	0%	0%	-100%	0%	0	2,200
2940	LN St			1,421	Increment	1,421	0%	0%	-100%	0%	0	1,400
2941	LN St			1,388	Increment	1,388	0%	0%	-100%	0%	0	1,400
2942	C St.			1,881	Increment	1,881	0%	0%	-100%	0%	0	1,900
2943	O St			8,987	Increment	8,987	0%	0%	-100%	0%	0	9,000
2945	Irvine Blvd.	16,800	21,383	49,009	Ratio	21,705	129%	129%	-100%	129%	21,705	38,500
4060	LY St			2,061	Increment	2,061	0%	0%	-100%	0%	0	2,100
4062	LY St			2,254	Increment	2,254	0%	0%	-100%	0%	0	2,300

301 . Sand Canyon. Av. at Irvine Bl,

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	99	.03*	505	.15*
NBT	3	5100	571	.11	832	.16
NBR	2	3400	309	.09	473	.14
SBL	2	3400	462	.14	128	.04
SBT	2	3400	967	.28*	570	.17*
SBR	1	1700	100	.06	243	.14
EBL	2	3400	249	.07	175	.05*
EBT	4	6800	1578	.23*	1089	.16
EBR	1	1700	349	.21	164	.10
WBL	2	3400	543	.16*	436	.13
WBT	3	5100	1341	.26	1853	.36*
WBR	1	1700	160	.09	483	.28
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .75 .78

302 . Sand Canyon. Av. at Trabuco Pkwy,

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	221	.07*	682	.20
NBT	3	5100	533	.10	2083	.41*
NBR	f		170		376	
SBL	2	3400	250	.07	338	.10*
SBT	3	5100	2350	.46*	837	.16
SBR	1	1700	104	.06	175	.10
EBL	2	3400	168	.05*	170	.05
EBT	3	5100	250	.05	406	.08*
EBR	f		619		204	
WBL	2	3400	357	.11	309	.09*
WBT	3	5100	647	.13*	363	.07
WBR	d	1700	280	.16	327	.19
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .76 .73

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	224	.07*	732	.22
NBT	4	6800	1121	.16	2831	.42*
NBR	d	1700	687	.40	738	.43
SBL	2	3400	332	.10	165	.05*
SBT	4	6800	3335	.49*	1363	.20
SBR	1	1700	317	.19	261	.15
EBL	1.5		151		381	.11*
EBT	1.5	5100	252	.08*	108	.06
EBR	2	3400	346	.10	240	.07
WBL	2	3400	342	.10*	530	.16
WBT	1.5	5100	138	{.04}	609	{.18}*
WBR	1.5		249		391	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .79 .81

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	1373	.20	3722	.55*
NBR	1	1700	101	.06	314	.18
SBL	2	3400	567	.17	456	.13*
SBT	4	6800	3353	.49*	1679	.25
SBR	0	0	0		0	
EBL	2.5		657	.19*	478	.09*
EBT	0	6800	2		0	
EBR	1.5		1137	.33	351	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.14*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .87 .82

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	281	.17*	68	.04*
SBT	0	0	0		0	
SBR	2	3400	161	.05	142	.04
EBL	0	0	0		0	
EBT	4	6800	2149	.32*	1592	.23
EBR	d	1700	227	.13	133	.08
WBL	2	3400	255	.08*	207	.06
WBT	3	5100	1737	.34	2608	.51*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.62		.60

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	80	.05*	199	.12*
NBT	0	0	0		0	
NBR	1	1700	161	.09	428	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	2319	.68*	1592	.47
EBR	f		130		200	
WBL	0	0	0		0	
WBT	3	5100	1980	.43	2671	.59*
WBR	0	0	190		320	
Right Turn Adjustment			NBR	.04*	NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.82		.80

557 . O St. at C St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		14	{.01}*	26	
NBT	1.5	3400	118	.04	425	.14*
NBR	0		2		12	
SBL	0.5		29		36	{.02}*
SBT	1.5	3400	489	.22*	307	.12
SBR	0		225		72	
EBL	0.5		57	{.03}*	149	{.09}*
EBT	0.5	1700	9	.05	41	.14
EBR	0		16		40	
WBL	0.5		15		16	
WBT	0.5	1700	61	.08*	33	.06*
WBR	0		55		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.39		.36

558 . O St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	137	.04*	153	.05
NBT	2	3400	112	.03	487	.14*
NBR	d	1700	44	.03	56	.03
SBL	1	1700	200	.12	105	.06*
SBT	2	3400	484	.14*	202	.06
SBR	f		630		284	
EBL	2	3400	135	.04	485	.14*
EBT	3	5100	2166	.42*	1369	.27
EBR	1	1700	255	.15	217	.13
WBL	2	3400	81	.02*	71	.02
WBT	3	5100	1623	.32	2563	.50*
WBR	1	1700	43	.03	158	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.67		.89

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	89	.03*	344	.10*
NBT	2	3400	59	.02	359	.11
NBR	0	0	2		27	
SBL	1	1700	17	.01	41	.02
SBT	2	3400	368	.11*	284	.08*
SBR	1	1700	609	.36	528	.31
EBL	2	3400	588	.17*	636	.19*
EBT	2	3400	241	.07	442	.13
EBR	1	1700	542	.32	328	.19
WBL	1	1700	33	.02	29	.02
WBT	2	3400	496	.16*	488	.16*
WBR	0	0	36		55	

Right Turn Adjustment SBR .08* SBR .04*
 Clearance Interval .05* .05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .60 .62

560 . 0 St. at Marine Wy.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	396	.12*	388	.11*
SBT	0	0	0		0	
SBR	1	1700	137	.08	242	.14
EBL	1	1700	69	.04	217	.13*
EBT	2	3400	910	.27*	635	.19
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	547	.16	902	.27*
WBR	1	1700	122	.07	496	.29

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .44 .56

563 . B St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	36	.01*	164	.05
NBT	1	1700	14	.03	24	.10*
NBR	0	0	30		142	
SBL	1	1700	2	.00	6	.00
SBT	1	1700	25	.02*	18	.01
SBR	0	0	2		6	
EBL	1	1700	10	.01	4	.00
EBT	3	5100	2627	.52*	1572	.31
EBR	1	1700	255	.15	70	.04
WBL	2	3400	170	.05*	52	.02
WBT	3	5100	1532	.30	2900	.57*
WBR	0	0	6		3	

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .65 .72

572 . LQ St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	67	.04	90	.05
NBT	1	1700	63	.04*	118	.07*
NBR	1	1700	140	.08	122	.07
SBL	2	3400	396	.12*	225	.07*
SBT	1	1700	119	.07	99	.06
SBR	d	1700	186	.11	168	.10
EBL	1	1700	96	.06	142	.08*
EBT	3	5100	2214	.43*	1336	.26
EBR	1	1700	70	.04	63	.04
WBL	1	1700	102	.06*	147	.09
WBT	3	5100	1437	.28	2487	.49*
WBR	1	1700	141	.08	331	.19
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.70		.76

608 . 0 St. at LV St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	42 .02*	50 .03*		
NBT	2	3400	126 .04	639 .19		
NBR	0	0	4	22		
SBL	1	1700	12 .01	21 .01		
SBT	2	3400	662 .23*	541 .17*		
SBR	0	0	123	47		
EBL	1	1700	19 .01*	91 .05*		
EBT	1	1700	5 .02	27 .06		
EBR	0	0	36	72		
WBL	1	1700	28 .02	16 .01		
WBT	1	1700	46 .04*	13 .02*		
WBR	0	0	16	21		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .35 .32

610 . LM St at LN St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	14 {.01}*	17		
NBT	1	1700	9 .02	33 .04*		
NBR	0	0	6	22		
SBL	0	0	11	15 {.01}*		
SBT	1	1700	54 .05*	24 .03		
SBR	0	0	25	11		
EBL	0	0	4	17		
EBT	1	1700	24 .02	97 .08*		
EBR	0	0	12	17		
WBL	0	0	26	12 {.01}*		
WBT	1	1700	106 .08*	56 .05		
WBR	0	0	8	12		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .19 .19

611 . LM St at LN St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	8	5		
NBT	1	1700	12 .01	14 .01		
NBR	0	0	1	1		
SBL	0	0	10	6		
SBT	1	1700	9 .06*	12 .03*		
SBR	0	0	77	33		
EBL	0	0	12 {.01}*	56		
EBT	1	1700	9 .01	35 .06*		
EBR	0	0	1	8		
WBL	0	0	1	1		
WBT	1	1700	35 .02*	15 .01		
WBR	0	0	6	4		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .14 .14

613 . C St. at LN St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	13	16		
NBT	1	1700	32 .04*	52 .06*		
NBR	0	0	15	32		
SBL	0	0	12 {.01}*	17 {.01}*		
SBT	1	1700	28 .03	34 .04		
SBR	0	0	10	9		
EBL	0	0	8	13		
EBT	1	1700	33 .03	71 .06*		
EBR	0	0	9	16		
WBL	0	0	23	19 {.01}*		
WBT	1	1700	77 .07*	45 .05		
WBR	0	0	20	16		
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .17 .19

614 . C St. at VV St

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	7		6		
NBT	1	1700	41	.03	74	.05*	
NBR	0	0	3		11		
SBL	0	0	4		12	{.01}*	
SBT	1	1700	46	.04*	53	.04	
SBR	0	0	10		6		
EBL	0	0	4		13	{.01}*	
EBT	1	1700	3	.01	18	.02	
EBR	0	0	3		9		
WBL	0	0	11		8		
WBT	1	1700	23	.03*	9	.02*	
WBR	0	0	15		13		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.12	.14		

615 . C St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	22	{.01}*	32		
NBT	1	1700	12	.03	51	.08*	
NBR	0	0	25		57		
SBL	0	0	31		25	{.01}*	
SBT	1	1700	32	.05*	30	.04	
SBR	0	0	27		14		
EBL	1	1700	11	.01*	25	.01	
EBT	1	1700	214	.14	252	.17*	
EBR	0	0	26		33		
WBL	1	1700	32	.02	48	.03*	
WBT	1	1700	260	.16*	196	.14	
WBR	0	0	17		35		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.28	.34		

617 . C St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	49	.03*	39	.02*	
NBT	1	1700	25	.02	57	.04	
NBR	0	0	6		6		
SBL	1	1700	12	.01	7	.00	
SBT	1	1700	30	.08*	78	.07*	
SBR	0	0	99		47		
EBL	1	1700	30	.02*	85	.05	
EBT	1	1700	63	.05	77	.10*	
EBR	0	0	17		93		
WBL	1	1700	3	.00	10	.01*	
WBT	1	1700	92	.06*	53	.04	
WBR	0	0	5		9		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.24	.25		

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	7	.00	8	.00	
NBT	1	1700	23	.01	62	.04*	
NBR	0	0	0		0		
SBL	0	0	0		0		
SBT	1	1700	36	.02*	37	.02	
SBR	1	1700	73	.04	22	.01	
EBL	1	1700	27	.02*	58	.03*	
EBT	0	0	0		0		
EBR	1	1700	4	.00	13	.01	
WBL	0	0	0		0		
WBT	0	0	0		0		
WBR	0	0	0		0		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.09	.12		

626 . LY St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		20 { .01 }*	35		
NBT	0.5	1700	8 .03	60 .08*		
NBR	0		23	44		
SBL	0.5		45	24 { .01 }*		
SBT	0.5	1700	69 .09*	27 .04		
SBR	0		38	19		
EBL	0.5		10	38		
EBT	0.5	1700	233 .17*	262 .19*		
EBR	0		42	31		
WBL	0.5		49 { .03 }*	33 { .02 }*		
WBT	0.5	1700	252 .18	225 .18		
WBR	0		12	42		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.35	.35		

641 . Thomas at Rockfield

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	1	1700	0 .00*	0 .00*		
NBR	0	0	0	0		
SBL	1	1700	54 .03*	336 .20*		
SBT	1	1700	0 .00	0 .00		
SBR	0	0	7	6		
EBL	1	1700	67 .04*	76 .04*		
EBT	2	3400	116 .03	514 .15		
EBR	d	1700	0 .00	0 .00		
WBL	1	1700	0 .00	0 .00		
WBT	2	3400	733 .30*	356 .14*		
WBR	0	0	303	111		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.42	.43		

627 . LY St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	50 .03*	69 .04*		
NBT	0	0	0	0		
NBR	1	1700	50 .03	72 .04		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	3	5100	2320 .45*	1438 .28		
EBR	1	1700	61 .04	68 .04		
WBL	1	1700	59 .03*	62 .04		
WBT	3	5100	1630 .32	2671 .52*		
WBR	0	0	0	0		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.56	.61		

790 . Z St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	43 .03	23 .01*		
NBT	1	1700	38 .02*	71 .04		
NBR	1	1700	49 .03	26 .02		
SBL	1	1700	126 .07*	38 .02		
SBT	1	1700	91 .05	79 .05*		
SBR	1	1700	113 .07	33 .02		
EBL	1	1700	17 .01	59 .03*		
EBT	3	5100	2735 .54*	1596 .31		
EBR	1	1700	16 .01	45 .03		
WBL	1	1700	13 .01*	45 .03		
WBT	3	5100	1533 .30	2944 .58*		
WBR	1	1700	15 .01	59 .03		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.69	.72		

782 . A St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		120	31		
SBT	0	1700	0	.11*	0	.03*
SBR	0.5		60	19		
EBL	0.5		11	44	{.03}*}	
EBT	0.5	1700	310	.19*	269	.18
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	210	.13	271	.20*
WBR	0	0	19	66		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .35 .31

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		8	3		
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		12	7		
EBL	1	1700	8	.00	17	.01*
EBT	1	1700	472	.28*	251	.15
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	188	.11	359	.22*
WBR	0	0	2	13		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .34 .29

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	18	.01*	93	.05
NBT	1	1700	16	.02	200	.15*
NBR	0	0	26	60		
SBL	1	1700	78	.05	25	.01*
SBT	1	1700	286	.20*	59	.06
SBR	0	0	56	37		
EBL	1	1700	23	.01	56	.03*
EBT	1	1700	326	.27*	155	.12
EBR	0	0	131	42		
WBL	1	1700	63	.04*	39	.02
WBT	1	1700	106	.07	229	.17*
WBR	0	0	11	54		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .41

799 . B St. at Marine Wy.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	3 .00	3 .00		
NBT	1	1700	4 .00*	5 .00*		
NBR	0	0	2	2		
SBL	1	1700	155 .09*	141 .08*		
SBT	1	1700	10 .01	10 .01		
SBR	1	1700	195 .11	199 .12		
EBL	1	1700	115 .07*	204 .12*		
EBT	2	3400	586 .17	667 .20		
EBR	0	0	0	0		
WBL	1	1700	0 .00	0 .00		
WBT	2	3400	847 .25*	988 .29*		
WBR	1	1700	142 .08	221 .13		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.46	.54		

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	33 .01*	74 .02		
NBT	1	1700	55 .03	213 .13*		
NBR	1	1700	214 .13	367 .22		
SBL	1	1700	45 .03	27 .02*		
SBT	1	1700	170 .10*	88 .05		
SBR	0	0	7	5		
EBL	1	1700	6 .00	14 .01*		
EBT	3	5100	2751 .54*	1767 .35		
EBR	1	1700	84 .05	80 .05		
WBL	2	3400	436 .13*	302 .09		
WBT	3	5100	1650 .32	2861 .56*		
WBR	1	1700	30 .02	53 .03		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.83	.77		

603 . O St. at LN St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	45 .03*	33 .02		
NBT	2	3400	100 .04	461 .16*		
NBR	0	0	25	89		
SBL	1	1700	11 .01	18 .01*		
SBT	2	3400	556 .17*	349 .10		
SBR	0	0	22	7		
EBL	1	1700	2 .00	13 .01		
EBT	1	1700	4 .02*	22 .04*		
EBR	0	0	24	46		
WBL	1	1700	100 .06*	55 .03*		
WBT	1	1700	34 .02	11 .02		
WBR	0	0	8	16		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.33	.29		

605 . O St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		150 {.09}*	95		
NBT	1.5	3400	164 .14	570 .24*		
NBR	0		173	151		
SBL	0.5		48	37 {.02}*		
SBT	1.5	3400	632 .21*	432 .14		
SBR	0		42	20		
EBL	0.5		4	33		
EBT	0.5	1700	40 .06	82 .13*		
EBR	0		55	107		
WBL	0.5		158	151 {.09}*		
WBT	0.5	1700	100 .16*	65 .15		
WBR	0		13	47		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.51	.53		

782 . A St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		120	31		
SBT	0	1700	0	.11*	0	.03*
SBR	0.5		60	19		
EBL	0.5		11	44	{.03}*	
EBT	0.5	1700	310	.19*	269	.18
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	210	.13	271	.20*
WBR	0	0	19	66		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.35	.31	

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		8	3		
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		12	7		
EBL	1	1700	8	.00	17	.01*
EBT	1	1700	472	.28*	251	.15
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	188	.11	359	.22*
WBR	0	0	2	13		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.34	.29	

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	18	.01*	93	.05
NBT	1	1700	16	.02	200	.15*
NBR	0	0	26	60		
SBL	1	1700	78	.05	25	.01*
SBT	1	1700	286	.20*	59	.06
SBR	0	0	56	37		
EBL	1	1700	23	.01	56	.03*
EBT	1	1700	326	.27*	155	.12
EBR	0	0	131	42		
WBL	1	1700	63	.04*	39	.02
WBT	1	1700	106	.07	229	.17*
WBR	0	0	11	54		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.57	.41	

629 . LY St. at LN St.

ITAM 8.4-10 P30 Pend GPN11 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	8	26		
NBT	1	1700	11	.02	59	.08*
NBR	0	0	11	56		
SBL	0	0	13	18	{.01}*	
SBT	1	1700	70	.05*	33	.03
SBR	0	0	10	8		
EBL	0	0	6	8		
EBT	1	1700	55	.05*	69	.05*
EBR	0	0	31	13		
WBL	0	0	59	{.03}*	26	{.02}*
WBT	1	1700	72	.08	59	.06
WBR	0	0	12	15		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.18	.21	

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY POST 2030 – WITH 2012 MODIFIED PROJECT OPTION 1

Adt Refinement Summary

Scenario: Post 2030 Pending Option 1 - No Project
 Existing Model RunID: ITAM-8.4-2008
 Future Model RunID: ITAM-8.4-P2030
 Existing Validation Year: 2008
 Future Analysis Year: Post-2030

Project: ITAM 8.4-10
 JobNumber:
 Analyst: Peter Anderson
 Date: 1/10/2014

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	30,216	Ratio	17,634	188%	188%	-100%	188%	17,634	27,000
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	30,224	Increment	19,746	161%	161%	-100%	161%	19,746	32,000
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	45,043	Ratio	16,617	145%	145%	-100%	145%	16,617	28,100
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	49,693	Increment	29,869	146%	146%	-100%	146%	29,869	50,300
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	62,262	Increment	41,880	205%	205%	-100%	205%	41,880	62,400
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	75,023	Ratio	29,364	126%	126%	-100%	126%	29,364	52,700
511	Irvine Bl. e/o Sand Canyon. Av.	19,000	20,323	39,104	Ratio	17,558	92%	92%	-100%	92%	17,558	36,600
512	Irvine Bl. e/o SR-133 NB Ramps	19,000	20,833	46,645	Ratio	23,541	124%	124%	-100%	124%	23,541	42,500
567	Trabuco Rd. w/o SR-133 SB Ramps		0	25,547	Increment	25,547	0%	0%	-100%	0%	0	25,500
603	Marine Wy. e/o Sand Canyon. Av.	4,387	120	30,188	Increment	30,068	685%	685%	-100%	685%	30,068	34,500
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	75,998	Ratio	43,751	190%	190%	-100%	190%	43,751	66,800
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,098	40,645	Ratio	21,052	113%	113%	-100%	113%	21,052	39,700
928	Irvine Bl. w/o SR-133 SB Ramps	19,000	20,323	39,104	Ratio	17,558	92%	92%	-100%	92%	17,558	36,600
962	Irvine Bl. b/w SR-133 NB and SB Ra	19,000	19,661	41,048	Ratio	20,668	109%	109%	-100%	109%	20,668	39,700
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	75,998	Ratio	38,867	190%	190%	-100%	190%	38,867	59,300
2001	Ridge Valley s/o Portola Pkwy.		77	9,656	Increment	9,579	0%	0%	-100%	0%	0	9,700
2006	Irvine Bl. e/o Ridge Valley	19,000	20,753	41,149	Ratio	18,673	98%	98%	-100%	98%	18,673	37,700
2007	Irvine Bl. w/o Ridge Valley	19,000	20,753	41,151	Ratio	18,675	98%	98%	-100%	98%	18,675	37,700
2008	O St. n/o Irvine Bl.		0	16,629	Increment	16,629	0%	0%	-100%	0%	0	16,600
2009	O St. s/o Irvine Bl.		0	10,560	Increment	10,560	0%	0%	-100%	0%	0	10,600
2012	O St. n/o Trabuco Rd.		0	22,857	Increment	22,857	0%	0%	-100%	0%	0	22,900
2013	O St. s/o Trabuco Rd.		0	13,902	Increment	13,902	0%	0%	-100%	0%	0	13,900
2014	Trabuco Rd. e/o O St.		0	11,220	Increment	11,220	0%	0%	-100%	0%	0	11,200
2015	Trabuco Rd. w/o O St.		0	34,132	Increment	34,132	0%	0%	-100%	0%	0	34,100
2016	O St. n/o Marine Wy.		0	10,711	Increment	10,711	0%	0%	-100%	0%	0	10,700

Scenario: Post 2030 Pending Option 1 - No Project Project: ITAM 8.4-10
 Existing Model RunID: ITAM-8.4-2008 JobNumber:
 Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
 Existing Validation Year: 2008 Date: 1/10/2014
 Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.			0	27,048	Increment	27,048	0%	0%	0%	0	27,000
2019	Marine Wy.		120	24,385	Increment	24,265	0%	0%	-100%	0%	0	24,400
2021	A St.		0	5,794	Increment	5,794	0%	0%	-100%	0%	0	5,800
2030	LQ St	19,000	0	4,841	Increment	4,841	25%	25%	-100%	25%	4,841	23,800
2031	Irvine Bl.	19,000	21,695	50,470	Ratio	25,201	133%	133%	-100%	133%	25,201	44,200
2201	Portola Springs		80	6,407	Increment	6,327	0%	0%	-100%	0%	0	6,400
2204	Modjeska		1,163	14,023	Increment	12,860	0%	0%	-100%	0%	0	14,000
2206	Irvine Bl.	19,000	21,901	49,523	Ratio	23,963	126%	126%	-100%	126%	23,963	43,000
2568	Trabuco Pkwy.	2,282	4,547	25,547	Ratio	10,539	462%	462%	-100%	462%	10,539	12,800
2871	O St		0	9,535	Increment	9,535	0%	0%	-100%	0%	0	9,500
2872	O St		0	12,468	Increment	12,468	0%	0%	-100%	0%	0	12,500
2873	LN St		0	2,561	Increment	2,561	0%	0%	-100%	0%	0	2,600
2875	C St.		0	1,201	Increment	1,201	0%	0%	-100%	0%	0	1,200
2876	C St.		0	1,554	Increment	1,554	0%	0%	-100%	0%	0	1,600
2877	LN St		0	2,484	Increment	2,484	0%	0%	-100%	0%	0	2,500
2878	LN St		0	2,165	Increment	2,165	0%	0%	-100%	0%	0	2,200
2879	C St.		0	1,766	Increment	1,766	0%	0%	-100%	0%	0	1,800
2880	C St.		0	2,072	Increment	2,072	0%	0%	-100%	0%	0	2,100
2881	LQ St		0	7,118	Increment	7,118	0%	0%	-100%	0%	0	7,100
2882	LQ St		0	6,750	Increment	6,750	0%	0%	-100%	0%	0	6,800
2883	C St.		0	2,576	Increment	2,576	0%	0%	-100%	0%	0	2,600
2884	C St.		0	1,737	Increment	1,737	0%	0%	-100%	0%	0	1,700
2885	Trabuco		0	2,685	Increment	2,685	0%	0%	-100%	0%	0	2,700
2887	LM St		0	1,203	Increment	1,203	0%	0%	-100%	0%	0	1,200
2888	LM St		0	1,208	Increment	1,208	0%	0%	-100%	0%	0	1,200
2889	LN St		0	2,552	Increment	2,552	0%	0%	-100%	0%	0	2,600
2890	LN St		0	2,549	Increment	2,549	0%	0%	-100%	0%	0	2,500
2891	LM St		0	1,199	Increment	1,199	0%	0%	-100%	0%	0	1,200

Scenario: Post 2030 Pending Option 1 - No Project Project: ITAM 8.4-10
 Existing Model RunID: ITAM-8.4-2008 JobNumber:
 Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
 Existing Validation Year: 2008 Date: 1/10/2014
 Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892 LM St	s/o VV		0	250	Increment	250	0%	0%	-100%	0%	0	300
2893 VV St	e/o LM		0	581	Increment	581	0%	0%	-100%	0%	0	600
2894 VV St	w/ LM		0	1,621	Increment	1,621	0%	0%	-100%	0%	0	1,600
2895 C St.	n/VV		0	1,554	Increment	1,554	0%	0%	-100%	0%	0	1,600
2896 C St.	s/o VV		0	1,468	Increment	1,468	0%	0%	-100%	0%	0	1,500
2897 VV St	e/o C St		0	636	Increment	636	0%	0%	-100%	0%	0	600
2898 VV St	w/o C St		0	583	Increment	583	0%	0%	-100%	0%	0	600
2899 O St	n/o LQ St		0	13,572	Increment	13,572	0%	0%	-100%	0%	0	13,600
2900 O St	s/o LQ St		0	18,974	Increment	18,974	0%	0%	-100%	0%	0	19,000
2901 LQ St	e/o O St		0	6,004	Increment	6,004	0%	0%	-100%	0%	0	6,000
2904 O St	n/o LV St		0	11,790	Increment	11,790	0%	0%	-100%	0%	0	11,800
2905 O St	s/o LV St		0	11,248	Increment	11,248	0%	0%	-100%	0%	0	11,200
2906 LV St	e/o O St		0	1,175	Increment	1,175	0%	0%	-100%	0%	0	1,200
2909 LY St	s/o Irvine Blvd		0	2,128	Increment	2,128	0%	0%	-100%	0%	0	2,100
2911 Irvine Blvd.	w/o LY St	19,000	20,753	41,149	Ratio	18,673	98%	98%	-100%	98%	18,673	37,700
2912 LY St	n/o Trabuco Rd.		0	2,219	Increment	2,219	0%	0%	-100%	0%	0	2,200
2914 LY St	s/o Trabuco Rd.		0	1,983	Increment	1,983	0%	0%	-100%	0%	0	2,000
2915 Trabuco	w/o LY St		0	1,958	Increment	1,958	0%	0%	-100%	0%	0	2,000
2916 A St	n/o LQ St		0	1,329	Increment	1,329	0%	0%	-100%	0%	0	1,300
2918 LQ St	e/o A St		0	6,979	Increment	6,979	0%	0%	-100%	0%	0	7,000
2919 LQ St	w/o A St.		0	7,066	Increment	7,066	0%	0%	-100%	0%	0	7,100
2920 Z St	n/o LQ St		0	365	Increment	365	0%	0%	-100%	0%	0	400
2921 LQ St	e/o Z St		0	6,359	Increment	6,359	0%	0%	-100%	0%	0	6,400
2923 LQ St	w/o Z St		0	6,696	Increment	6,696	0%	0%	-100%	0%	0	6,700
2924 B St.	n/o LQ St		0	3,544	Increment	3,544	0%	0%	-100%	0%	0	3,500
2925 B St.	s/o LQ St		0	3,707	Increment	3,707	0%	0%	-100%	0%	0	3,700
2926 LQ St	e/o B St		0	5,867	Increment	5,867	0%	0%	-100%	0%	0	5,900
2927 LQ St	w/o B St.		0	6,359	Increment	6,359	0%	0%	-100%	0%	0	6,400

Scenario: Post 2030 Pending Option 1 - No Project Project: ITAM 8.4-10
Existing Model RunID: ITAM-8.4-2008 JobNumber:
Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
Existing Validation Year: 2008 Date: 1/10/2014
Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928 B St.	n/o Marine Wy.		0	9,936	Increment	9,936	0%	0%	-100%	0%	0	9,900
2929 Marine Way	e/o B St.		0	20,555	Increment	20,555	0%	0%	-100%	0%	0	20,600
2931 Marine Way	w/o B St.		0	27,229	Increment	27,229	0%	0%	-100%	0%	0	27,200
2933 Irvine Blvd.	e/o LQ St	19,000	21,768	52,433	Ratio	26,766	141%	141%	-100%	141%	26,766	45,800
2934 LV St	e/o C St.		0	1,061	Increment	1,061	0%	0%	-100%	0%	0	1,100
2935 A St	s/o LN St		0	1,914	Increment	1,914	0%	0%	-100%	0%	0	1,900
2936 Irvine Blvd.	e/o Modjeska	19,000	21,695	49,523	Ratio	24,371	128%	128%	-100%	128%	24,371	43,400
2937 Z St	n/o Irvine Blvd		0	3,570	Increment	3,570	0%	0%	-100%	0%	0	3,600
2938 Z St	s/o Irvine Blvd		0	2,171	Increment	2,171	0%	0%	-100%	0%	0	2,200
2940 LN St	w/o A St.		0	1,518	Increment	1,518	0%	0%	-100%	0%	0	1,500
2941 LN St	e/o A St		0	1,499	Increment	1,499	0%	0%	-100%	0%	0	1,500
2942 C St.	w/o O St.		0	1,713	Increment	1,713	0%	0%	-100%	0%	0	1,700
2943 O St	s/o C St.		0	8,977	Increment	8,977	0%	0%	-100%	0%	0	9,000
2945 Irvine Blvd.	e/o B St.	19,000	21,695	47,569	Ratio	22,660	119%	119%	-100%	119%	22,660	41,700
4060 LY St	n/o LQ		0	2,263	Increment	2,263	0%	0%	-100%	0%	0	2,300
4062 LY St	s/o LQ		0	2,639	Increment	2,639	0%	0%	-100%	0%	0	2,600

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	103	.03*	498	.15*
NBT	3	5100	543	.11	793	.16
NBR	2	3400	263	.08	458	.13
SBL	2	3400	416	.12	121	.04
SBT	2	3400	954	.28*	535	.16*
SBR	1	1700	110	.06	234	.14
EBL	2	3400	259	.08*	184	.05*
EBT	4	6800	1461	.21	1161	.17
EBR	1	1700	354	.21	173	.10
WBL	2	3400	522	.15	412	.12
WBT	3	5100	1437	.28*	1798	.35*
WBR	1	1700	158	.09	453	.27
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .76

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	219	.06*	678	.20
NBT	3	5100	461	.09	1979	.39*
NBR	f		212		487	
SBL	2	3400	304	.09	391	.12*
SBT	3	5100	2281	.45*	757	.15
SBR	1	1700	100	.06	155	.09
EBL	2	3400	147	.04*	175	.05
EBT	3	5100	314	.06	572	.11*
EBR	f		619		225	
WBL	2	3400	470	.14	389	.11*
WBT	3	5100	851	.17*	448	.09
WBR	d	1700	322	.19	386	.23
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .77 .78

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	275	.08*	712	.21
NBT	4	6800	1040	.15	2792	.41*
NBR	d	1700	692	.41	1076	.63
SBL	2	3400	326	.10	230	.07*
SBT	4	6800	3269	.48*	1377	.20
SBR	1	1700	377	.22	243	.14
EBL	1.5		134		344	.10*
EBT	1.5	5100	242	.07*	144	.08
EBR	2	3400	334	.10	232	.07
WBL	2	3400	607	.18*	601	.18
WBT	1.5	5100	298	{.09}	635	{.19}*
WBR	1.5		406		414	
Right Turn Adjustment					NBR	.06*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .86 .88

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	1334	.20	3897	.57*
NBR	1	1700	89	.05	267	.16
SBL	2	3400	560	.16	494	.15*
SBT	4	6800	3543	.52*	1712	.25
SBR	0	0	0		0	
EBL	2.5		669	.20*	589	.12*
EBT	0	6800	2		0	
EBR	1.5		1124	.33	330	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment				EBR	.13*	
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .90 .89

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	241	.14*	74	.04*
SBT	0	0	0		0	
SBR	2	3400	199	.06	136	.04
EBL	0	0	0		0	
EBT	4	6800	1922	.28	1646	.24
EBR	d	1700	220	.13	129	.08
WBL	2	3400	198	.06	211	.06
WBT	3	5100	1800	.35*	2494	.49*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.54		.58

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	56	.03*	195	.11*
NBT	0	0	0		0	
NBR	1	1700	104	.06	413	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	2006	.59*	1667	.49
EBR	f		130		200	
WBL	0	0	0		0	
WBT	3	5100	1984	.45	2585	.56*
WBR	0	0	300		270	
Right Turn Adjustment			NBR	.03*	NBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.70		.80

557 . 0 St. at C St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		32 { .02}*	36		
NBT	1.5	3400	167 .06	362 .12*		
NBR	0		5	14		
SBL	0.5		25	27 { .02}*		
SBT	1.5	3400	506 .21*	276 .11		
SBR	0		184	75		
EBL	0.5		46 { .03}*	153		
EBT	0.5	1700	11 .05	50 .15*		
EBR	0		24	57		
WBL	0.5		20	17 { .01}*		
WBT	0.5	1700	64 .07*	39 .06		
WBR	0		37	45		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.38	.35		

558 . 0 St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	132 .04*	120 .04		
NBT	2	3400	126 .04	444 .13*		
NBR	d	1700	53 .03	54 .03		
SBL	1	1700	231 .14	124 .07*		
SBT	2	3400	487 .14*	191 .06		
SBR	f		569	276		
EBL	2	3400	109 .03	492 .14*		
EBT	3	5100	1896 .37*	1462 .29		
EBR	1	1700	194 .11	184 .11		
WBL	2	3400	99 .03*	65 .02		
WBT	3	5100	1779 .35	2454 .48*		
WBR	1	1700	55 .03	175 .10		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.63	.87		

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	145 .04*	420 .12*		
NBT	2	3400	64 .02	383 .12		
NBR	0	0	3	28		
SBL	1	1700	17 .01	40 .02		
SBT	2	3400	335 .10*	272 .08*		
SBR	1	1700	851 .50	592 .35		
EBL	2	3400	637 .19*	754 .22*		
EBT	2	3400	250 .07	484 .14		
EBR	1	1700	569 .33	376 .22		
WBL	1	1700	26 .02	24 .01		
WBT	2	3400	564 .17*	453 .15*		
WBR	0	0	29	46		
Right Turn Adjustment			SBR .21*	SBR .05*		
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for SBR						
TOTAL CAPACITY UTILIZATION			.76	.67		

560 . 0 St. at Marine Wy.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	2	3400	319 .09*	379 .11*		
SBT	0	0	0	0		
SBR	1	1700	155 .09	283 .17		
EBL	1	1700	58 .03*	285 .17*		
EBT	2	3400	921 .27	941 .28		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	2	3400	1105 .33*	997 .29*		
WBR	1	1700	142 .08	405 .24		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.50	.62		

563 . B St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	2	3400	80 .02*	154 .05*
NBT	1	1700	18 .04	22 .06
NBR	0	0	53	85
SBL	1	1700	2 .00	3 .00
SBT	1	1700	24 .02*	20 .02*
SBR	0	0	4	6
EBL	1	1700	7 .00	6 .00
EBT	3	5100	2525 .50*	1592 .31
EBR	1	1700	203 .12	129 .08
WBL	2	3400	123 .04*	61 .02
WBT	3	5100	1736 .34	2890 .57*
WBR	0	0	4	3

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .63 .69

572 . Modjeska-A St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	1	1700	23 .01	13 .01
NBT	1	1700	159 .09*	211 .12*
NBR	1	1700	57 .03	37 .02
SBL	2	3400	375 .11*	214 .06*
SBT	1	1700	162 .10	221 .13
SBR	d	1700	149 .09	77 .05
EBL	1	1700	49 .03	121 .07*
EBT	3	5100	2158 .42*	1569 .31
EBR	1	1700	8 .00	22 .01
WBL	1	1700	20 .01*	47 .03
WBT	3	5100	1728 .34	2559 .50*
WBR	1	1700	132 .08	258 .15

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .68 .80

626 . LY St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		21 { .01}*	40		
NBT	0.5	1700	8 .03	68 .10*		
NBR	0		21	62		
SBL	0.5		50	29 { .02}*		
SBT	0.5	1700	92 .11*	31 .05		
SBR	0		49	19		
EBL	0.5		8	40		
EBT	0.5	1700	192 .14	332 .24*		
EBR	0		40	37		
WBL	0.5		70	43 { .03}*		
WBT	0.5	1700	335 .25*	233 .19		
WBR	0		14	43		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.42	.44		

627 . LY St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	49 .03*	67 .04*		
NBT	0	0	0	0		
NBR	1	1700	51 .03	73 .04		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	3	5100	2109 .41*	1557 .31		
EBR	1	1700	45 .03	65 .04		
WBL	1	1700	55 .03*	55 .03		
WBT	3	5100	1840 .36	2583 .51*		
WBR	0	0	0	0		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.52	.60		

790 . Z St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	46 .03	19 .01*		
NBT	1	1700	33 .02*	59 .03		
NBR	1	1700	51 .03	22 .01		
SBL	1	1700	125 .07*	35 .02		
SBT	1	1700	82 .05	75 .04*		
SBR	1	1700	113 .07	31 .02		
EBL	1	1700	14 .01	63 .04*		
EBT	3	5100	2604 .51*	1732 .34		
EBR	1	1700	14 .01	50 .03		
WBL	1	1700	14 .01*	46 .03		
WBT	3	5100	1781 .35	2930 .57*		
WBR	1	1700	14 .01	58 .03		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.66	.71		

799 . B St. at Marine Wy.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	92 .05	54 .03		
NBT	1	1700	37 .03*	53 .04*		
NBR	0	0	22	13		
SBL	1	1700	124 .07*	63 .04*		
SBT	1	1700	53 .03	50 .03		
SBR	1	1700	500 .29	261 .15		
EBL	1	1700	145 .09*	413 .24*		
EBT	2	3400	804 .25	903 .29		
EBR	0	0	36	80		
WBL	1	1700	11 .01	20 .01		
WBT	2	3400	958 .28*	985 .29*		
WBR	1	1700	38 .02	104 .06		
Right Turn Adjustment		SBR	.17*			
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.69	.66		

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	54 .02*	29 .01		
NBT	1	1700	61 .04	148 .09*		
NBR	1	1700	159 .09	90 .05		
SBL	1	1700	80 .05	35 .02*		
SBT	1	1700	123 .09*	76 .05		
SBR	0	0	27	11		
EBL	1	1700	8 .00	39 .02*		
EBT	3	5100	2661 .52*	1718 .34		
EBR	1	1700	33 .02	51 .03		
WBL	2	3400	84 .02*	123 .04		
WBT	3	5100	1738 .34	2855 .56*		
WBR	1	1700	21 .01	94 .06		
Right Turn Adjustment			NBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.74

603 . O St. at LN St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	18 .01*	62 .04		
NBT	2	3400	169 .06	429 .16*		
NBR	0	0	27	130		
SBL	1	1700	11 .01	21 .01*		
SBT	2	3400	605 .18*	344 .10		
SBR	0	0	9	10		
EBL	1	1700	9 .01	7 .00		
EBT	1	1700	12 .05*	19 .03*		
EBR	0	0	79	35		
WBL	1	1700	106 .06*	71 .04*		
WBT	1	1700	12 .01	18 .02		
WBR	0	0	12	14		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.35		.29

605 . O St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		128 {.08}*	109		
NBT	1.5	3400	211 .14	651 .29*		
NBR	0		143	215		
SBL	0.5		32	35 {.02}*		
SBT	1.5	3400	825 .26*	449 .15		
SBR	0		30	18		
EBL	0.5		4	23		
EBT	0.5	1700	25 .06*	70 .11*		
EBR	0		70	98		
WBL	0.5		251 {.15}*	153 {.09}*		
WBT	0.5	1700	83 .21	54 .14		
WBR	0		15	36		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.60		.56

608 . O St. at LV St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	40 .02*	47 .03		
NBT	2	3400	129 .04	584 .18*		
NBR	0	0	3	28		
SBL	1	1700	11 .01	32 .02*		
SBT	2	3400	610 .22*	533 .17		
SBR	0	0	136	44		
EBL	1	1700	26 .02*	84 .05*		
EBT	1	1700	6 .03	40 .07		
EBR	0	0	38	76		
WBL	1	1700	22 .01	24 .01		
WBT	1	1700	43 .03*	19 .03*		
WBR	0	0	15	27		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.34		.33

610 . "LM" St at LN St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	8		16		
NBT	1	1700	6	.01	32	.04*	
NBR	0	0	5		22		
SBL	0	0	16		17	{.01}*	
SBT	1	1700	59	.06*	20	.03	
SBR	0	0	26		13		
EBL	0	0	5		21		
EBT	1	1700	39	.04	131	.10*	
EBR	0	0	16		17		
WBL	0	0	26		13	{.01}*	
WBT	1	1700	96	.08*	71	.06	
WBR	0	0	8		16		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.19	.21		

611 . "LM" St at "VV" St

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	6		7		
NBT	1	1700	4	.01	12	.01	
NBR	0	0	1		1		
SBL	0	0	6		4		
SBT	1	1700	8	.06*	10	.03*	
SBR	0	0	87		36		
EBL	0	0	14	{.01}*	55		
EBT	1	1700	14	.02	35	.06*	
EBR	0	0	2		10		
WBL	0	0	1		1		
WBT	1	1700	37	.02*	17	.01	
WBR	0	0	3		3		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.14	.14		

613 . C St. at LN St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	11		18		
NBT	1	1700	30	.04*	47	.06*	
NBR	0	0	19		35		
SBL	0	0	5		19	{.01}*	
SBT	1	1700	22	.02	30	.03	
SBR	0	0	3		10		
EBL	0	0	7		16		
EBT	1	1700	36	.04	106	.08*	
EBR	0	0	17		18		
WBL	0	0	61		21	{.01}*	
WBT	1	1700	76	.09*	62	.06	
WBR	0	0	23		17		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.18	.21		

614 . C St. at "VV" St

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	6		7		
NBT	1	1700	42	.03	80	.06*	
NBR	0	0	2		13		
SBL	0	0	5		11	{.01}*	
SBT	1	1700	82	.06*	54	.04	
SBR	0	0	13		5		
EBL	0	0	4		13	{.01}*	
EBT	1	1700	2	.01	18	.02	
EBR	0	0	4		9		
WBL	0	0	15		9		
WBT	1	1700	21	.03*	8	.02*	
WBR	0	0	15		11		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.14	.15		

615 . C St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	20	{.01}*	32		
NBT	1	1700	10	.03	53	.09*	
NBR	0	0	19		65		
SBL	0	0	38		29	{.02}*	
SBT	1	1700	53	.08*	28	.04	
SBR	0	0	39		14		
EBL	1	1700	11	.01*	28	.02	
EBT	1	1700	173	.12	316	.21*	
EBR	0	0	28		36		
WBL	1	1700	49	.03	46	.03*	
WBT	1	1700	340	.21*	205	.14	
WBR	0	0	19		39		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.36		.40	

617 . C St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	59	.03*	39	.02*	
NBT	1	1700	16	.01	59	.04	
NBR	0	0	5		12		
SBL	1	1700	13	.01	17	.01	
SBT	1	1700	22	.10*	65	.07*	
SBR	0	0	147		58		
EBL	1	1700	30	.02*	84	.05	
EBT	1	1700	82	.06	153	.13*	
EBR	0	0	16		63		
WBL	1	1700	2	.00	14	.01*	
WBT	1	1700	134	.08*	117	.08	
WBR	0	0	4		19		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.28		.28	

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	18	.01*	67	.04*	
NBT	1	1700	22	.01	93	.05	
NBR	0	0	0		0		
SBL	0	0	0		0		
SBT	1	1700	47	.03*	74	.04*	
SBR	1	1700	112	.07	36	.02	
EBL	1	1700	38	.02*	60	.04*	
EBT	0	0	0		0		
EBR	1	1700	13	.01	90	.05	
WBL	0	0	0		0		
WBT	0	0	0		0		
WBR	0	0	0		0		
Right Turn Adjustment			SBR	.02*			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.13		.17	

782 . A St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	0		0		
NBT	0	0	0		0		
NBR	0	0	0		0		
SBL	0.5		45		32		
SBT	0	1700	0	.05*	0	.04*	
SBR	0.5		45		28		
EBL	0.5		8		20		
EBT	0.5	1700	265	.16	368	.23*	
EBR	0	0	0		0		
WBL	0	0	0		0		
WBT	1	1700	335	.20*	292	.18	
WBR	0	0	12		20		
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.30		.32	

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	PM 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	0.5		4		4	
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		6		6	
EBL	1	1700	6	.00	12	.01
EBT	1	1700	316	.19	361	.21*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	314	.19*	318	.19
WBR	0	0	4		8	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.25		.27

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	PM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	40	.02*	54	.03*
NBT	1	1700	70	.06	72	.07
NBR	0	0	30		44	
SBL	1	1700	26	.02	41	.02
SBT	1	1700	58	.06*	86	.08*
SBR	0	0	36		53	
EBL	1	1700	55	.03*	46	.03
EBT	1	1700	214	.16	258	.19*
EBR	0	0	51		57	
WBL	1	1700	41	.02	40	.02*
WBT	1	1700	234	.16*	217	.15
WBR	0	0	45		33	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.32		.37

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	0.5		4	4		
SBT	0	1700	0 .01*	0 .01*		
SBR	0.5		6	6		
EBL	1	1700	6 .00	12 .01		
EBT	1	1700	316 .19	361 .21*		
EBR	0	0	0	0		
WBL	0	0	0	0		
WBT	1	1700	314 .19*	318 .19		
WBR	0	0	4	8		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.25	.27		

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	40 .02*	54 .03*		
NBT	1	1700	70 .06	72 .07		
NBR	0	0	30	44		
SBL	1	1700	26 .02	41 .02		
SBT	1	1700	58 .06*	86 .08*		
SBR	0	0	36	53		
EBL	1	1700	55 .03*	46 .03		
EBT	1	1700	214 .16	258 .19*		
EBR	0	0	51	57		
WBL	1	1700	41 .02	40 .02*		
WBT	1	1700	234 .16*	217 .15		
WBR	0	0	45	33		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.32	.37		

629 . LY St. at LN St.

ITAM 8.4-10 P30 Pend Opt1 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	12 {.01}*	24		
NBT	1	1700	13 .02	67 .09*		
NBR	0	0	15	59		
SBL	0	0	13	16 {.01}*		
SBT	1	1700	76 .06*	28 .03		
SBR	0	0	11	6		
EBL	0	0	5	12		
EBT	1	1700	52 .05	99 .08*		
EBR	0	0	33	19		
WBL	0	0	81	35 {.02}*		
WBT	1	1700	106 .12*	72 .08		
WBR	0	0	12	24		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.24	.25		

FORECAST INTERSECTION VOLUMES

ITAM SHEETS

HERITAGE FIELDS PROJECT 2012 – GPA/ZC TRAFFIC STUDY POST 2030 – WITH 2012 MODIFIED PROJECT OPTION 2

Adt Refinement Summary

Scenario: Post 2030 Pending Option 2 - No Project Project: ITAM 8.4-10
 Existing Model RunID: ITAM-8.4-2008 JobNumber:
 Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
 Existing Validation Year: 2008 Date: 1/10/2014
 Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
305	Sand Canyon. Av. n/o Irvine Bl.	9,379	10,491	30,169	Ratio	188%	188%	-100%	188%	17,592	27,000
306	Sand Canyon. Av. s/o Irvine Bl.	12,272	10,478	30,228	Increment	161%	161%	-100%	161%	19,750	32,000
307	Sand Canyon. Av. n/o Trabuco Pkwy.	11,463	18,388	45,019	Ratio	145%	145%	-100%	145%	16,602	28,100
308	Sand Canyon. Av. s/o Trabuco Pkwy.	20,474	19,824	49,643	Increment	146%	146%	-100%	146%	29,819	50,300
309	Sand Canyon. Av. n/o I-5 NB Ramps	20,474	20,382	62,223	Increment	204%	204%	-100%	204%	41,841	62,300
310	Sand Canyon. Av. b/w I-5 SB Ramps and Burt	23,317	33,206	75,005	Ratio	126%	126%	-100%	126%	29,351	52,700
511	Irvine Bl. e/o Sand Canyon. Av.	19,000	20,323	38,963	Ratio	92%	92%	-100%	92%	17,427	36,400
512	Irvine Bl. e/o SR-133 NB Ramps	19,000	20,833	46,396	Ratio	123%	123%	-100%	123%	23,314	42,300
567	Trabuco Rd. w/o SR-133 SB Ramps		0	25,643	Increment	0%	0%	-100%	0%	0	25,600
603	Marine Wy. e/o Sand Canyon. Av.	4,387	120	30,193	Increment	686%	686%	-100%	686%	30,073	34,500
727	Sand Canyon. Av. s/o I-5 NB Ramps	23,071	26,239	75,923	Ratio	189%	189%	-100%	189%	43,685	66,800
925	Irvine Bl. w/o Sand Canyon. Av.	18,659	19,098	40,553	Ratio	112%	112%	-100%	112%	20,962	39,600
928	Irvine Bl. w/o SR-133 SB Ramps	19,000	20,323	38,963	Ratio	92%	92%	-100%	92%	17,427	36,400
962	Irvine Bl. b/w SR-133 NB and SB Ra	19,000	19,661	40,924	Ratio	108%	108%	-100%	108%	20,548	39,500
1641	Sand Canyon. Av. n/o I-5 SB Ramps	20,474	26,221	75,923	Ratio	190%	190%	-100%	190%	38,809	59,300
2001	Ridge Valley s/o Portola Pkwy.		77	9,589	Increment	0%	0%	-100%	0%	0	9,600
2006	Irvine Bl. e/o Ridge Valley	19,000	20,753	41,139	Ratio	98%	98%	-100%	98%	18,664	37,700
2007	Irvine Bl. w/o Ridge Valley	19,000	20,753	41,140	Ratio	98%	98%	-100%	98%	18,665	37,700
2008	O St. n/o Irvine Bl.		0	16,578	Increment	0%	0%	-100%	0%	0	16,600
2009	O St. s/o Irvine Bl.		0	10,430	Increment	0%	0%	-100%	0%	0	10,400
2012	O St. n/o Trabuco Rd.		0	21,363	Increment	0%	0%	-100%	0%	0	21,400
2013	O St. s/o Trabuco Rd.		0	13,416	Increment	0%	0%	-100%	0%	0	13,400
2014	Trabuco Rd. e/o O St.		0	12,371	Increment	0%	0%	-100%	0%	0	12,400
2015	Trabuco Rd. w/o O St.		0	34,406	Increment	0%	0%	-100%	0%	0	34,400
2016	O St. n/o Marine Wy.		0	10,774	Increment	0%	0%	-100%	0%	0	10,800

Scenario: Post 2030 Pending Option 2 - No Project Project: ITAM 8.4-10
 Existing Model RunID: ITAM-8.4-2008 JobNumber:
 Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
 Existing Validation Year: 2008 Date: 1/10/2014
 Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2018	Marine Wy.			0	Increment	27,047	0%	0%	-100%	0%	0	27,000
2019	Marine Wy.			120	Increment	24,269	0%	0%	-100%	0%	0	24,400
2021	A St.			0	Increment	5,829	0%	0%	-100%	0%	0	5,800
2030	LQ St	19,000		0	Increment	4,736	25%	25%	-100%	25%	4,736	23,700
2031	Irvine Bl.	19,000		21,695	Ratio	25,264	133%	133%	-100%	133%	25,264	44,300
2201	Portola Springs			80	Increment	6,318	0%	0%	-100%	0%	0	6,400
2204	Modjeska			1,163	Increment	12,853	0%	0%	-100%	0%	0	14,000
2206	Irvine Bl.	19,000		21,901	Ratio	24,023	126%	126%	-100%	126%	24,023	43,000
2568	Trabuco Pkwy.	2,282		4,547	Ratio	10,587	464%	464%	-100%	464%	10,587	12,900
2871	O St			0	Increment	8,861	0%	0%	-100%	0%	0	8,900
2872	O St			0	Increment	11,923	0%	0%	-100%	0%	0	11,900
2873	LN St			0	Increment	2,785	0%	0%	-100%	0%	0	2,800
2875	C St.			0	Increment	1,742	0%	0%	-100%	0%	0	1,700
2876	C St.			0	Increment	2,163	0%	0%	-100%	0%	0	2,200
2877	LN St			0	Increment	2,665	0%	0%	-100%	0%	0	2,700
2878	LN St			0	Increment	2,411	0%	0%	-100%	0%	0	2,400
2879	C St.			0	Increment	2,466	0%	0%	-100%	0%	0	2,500
2880	C St.			0	Increment	3,910	0%	0%	-100%	0%	0	3,900
2881	LQ St			0	Increment	6,798	0%	0%	-100%	0%	0	6,800
2882	LQ St			0	Increment	5,561	0%	0%	-100%	0%	0	5,600
2883	C St.			0	Increment	4,643	0%	0%	-100%	0%	0	4,600
2884	C St.			0	Increment	5,823	0%	0%	-100%	0%	0	5,800
2885	Trabuco			0	Increment	2,183	0%	0%	-100%	0%	0	2,200
2887	LM St			0	Increment	1,269	0%	0%	-100%	0%	0	1,300
2888	LM St			0	Increment	1,275	0%	0%	-100%	0%	0	1,300
2889	LN St			0	Increment	2,775	0%	0%	-100%	0%	0	2,800
2890	LN St			0	Increment	2,772	0%	0%	-100%	0%	0	2,800
2891	LM St			0	Increment	1,266	0%	0%	-100%	0%	0	1,300

Scenario: Post 2030 Pending Option 2 - No Project Project: ITAM 8.4-10
Existing Model RunID: ITAM-8.4-2008 JobNumber:
Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
Existing Validation Year: 2008 Date: 1/10/2014
Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2892 LM St	s/o VV			0	248	Increment	248	0%	0%	-100%	0%	0	200
2893 VV St	e/o LM			0	577	Increment	577	0%	0%	-100%	0%	0	600
2894 VV St	w/ LM			0	1,712	Increment	1,712	0%	0%	-100%	0%	0	1,700
2895 C St.	n/VV			0	2,163	Increment	2,163	0%	0%	-100%	0%	0	2,200
2896 C St.	s/o VV			0	2,131	Increment	2,131	0%	0%	-100%	0%	0	2,100
2897 VV St	e/o C St			0	639	Increment	639	0%	0%	-100%	0%	0	600
2898 VV St	w/o C St			0	574	Increment	574	0%	0%	-100%	0%	0	600
2899 O St	n/o LQ St			0	13,103	Increment	13,103	0%	0%	-100%	0%	0	13,100
2900 O St	s/o LQ St			0	19,075	Increment	19,075	0%	0%	-100%	0%	0	19,100
2901 LQ St	e/o O St			0	5,539	Increment	5,539	0%	0%	-100%	0%	0	5,500
2904 O St	n/o LV St			0	11,246	Increment	11,246	0%	0%	-100%	0%	0	11,200
2905 O St	s/o LV St			0	11,305	Increment	11,305	0%	0%	-100%	0%	0	11,300
2906 LV St	e/o O St			0	1,846	Increment	1,846	0%	0%	-100%	0%	0	1,800
2909 LY St	s/o Irvine Blvd			0	2,295	Increment	2,295	0%	0%	-100%	0%	0	2,300
2911 Irvine Blvd.	w/o LY St	19,000	20,753	41,139	Ratio		18,664	98%	98%	-100%	98%	18,664	37,700
2912 LY St	n/o Trabuco Rd.			0	2,774	Increment	2,774	0%	0%	-100%	0%	0	2,800
2914 LY St	s/o Trabuco Rd.			0	2,711	Increment	2,711	0%	0%	-100%	0%	0	2,700
2915 Trabuco	w/o LY St			0	1,783	Increment	1,783	0%	0%	-100%	0%	0	1,800
2916 A St	n/o LQ St			0	1,283	Increment	1,283	0%	0%	-100%	0%	0	1,300
2918 LQ St	e/o A St			0	6,906	Increment	6,906	0%	0%	-100%	0%	0	6,900
2919 LQ St	w/o A St.			0	6,957	Increment	6,957	0%	0%	-100%	0%	0	7,000
2920 Z St	n/o LQ St			0	363	Increment	363	0%	0%	-100%	0%	0	400
2921 LQ St	e/o Z St			0	6,305	Increment	6,305	0%	0%	-100%	0%	0	6,300
2923 LQ St	w/o Z St			0	6,640	Increment	6,640	0%	0%	-100%	0%	0	6,600
2924 B St.	n/o LQ St			0	3,539	Increment	3,539	0%	0%	-100%	0%	0	3,500
2925 B St.	s/o LQ St			0	3,710	Increment	3,710	0%	0%	-100%	0%	0	3,700
2926 LQ St	e/o B St			0	5,801	Increment	5,801	0%	0%	-100%	0%	0	5,800
2927 LQ St	w/o B St.			0	6,305	Increment	6,305	0%	0%	-100%	0%	0	6,300

Scenario: Post 2030 Pending Option 2 - No Project Project: ITAM 8.4-10
 Existing Model RunID: ITAM-8.4-2008 JobNumber:
 Future Model RunID: ITAM-8.4-P2030 Analyst: Peter Anderson
 Existing Validation Year: 2008 Date: 1/10/2014
 Future Analysis Year: Post-2030

Adt Post Location	Adt Post Location Description	Existing Count	Existing Adt	Existing Model Adt	Future Model Adt	Procedure Type	Interim Raw Growth	Interim Raw Growth %	Smooth Raw Growth %	Minimum Growth % (User Input)	Final Growth %	Final Growth	Refined Adt
2928	B St.			0	9,900	Increment	9,900	0%	0%	-100%	0%	0	9,900
2929	Marine Way			0	20,543	Increment	20,543	0%	0%	-100%	0%	0	20,500
2931	Marine Way			0	27,199	Increment	27,199	0%	0%	-100%	0%	0	27,200
2933	Irvine Blvd.	19,000	21,768	52,412	Ratio	Increment	26,747	141%	141%	-100%	141%	26,747	45,700
2934	LV St			0	1,520	Increment	1,520	0%	0%	-100%	0%	0	1,500
2935	A St			0	1,873	Increment	1,873	0%	0%	-100%	0%	0	1,900
2936	Irvine Blvd.	19,000	21,695	49,592	Ratio	Increment	24,432	129%	129%	-100%	129%	24,432	43,400
2937	Z St			0	3,562	Increment	3,562	0%	0%	-100%	0%	0	3,600
2938	Z St			0	2,160	Increment	2,160	0%	0%	-100%	0%	0	2,200
2940	LN St			0	1,515	Increment	1,515	0%	0%	-100%	0%	0	1,500
2941	LN St			0	1,492	Increment	1,492	0%	0%	-100%	0%	0	1,500
2942	C St			0	2,289	Increment	2,289	0%	0%	-100%	0%	0	2,300
2943	O St			0	8,368	Increment	8,368	0%	0%	-100%	0%	0	8,400
2945	Irvine Blvd.	19,000	21,695	47,647	Ratio	Increment	22,728	120%	120%	-100%	120%	22,728	41,700
4060	LY St			0	2,209	Increment	2,209	0%	0%	-100%	0%	0	2,200
4062	LY St			0	2,781	Increment	2,781	0%	0%	-100%	0%	0	2,800

301 . Sand Canyon. Av. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	103	.03*	501	.15*
NBT	3	5100	536	.11	797	.16
NBR	2	3400	259	.08	462	.14
SBL	2	3400	411	.12	123	.04
SBT	2	3400	948	.28*	540	.16*
SBR	1	1700	110	.06	237	.14
EBL	2	3400	259	.08*	182	.05*
EBT	4	6800	1460	.21	1155	.17
EBR	1	1700	356	.21	171	.10
WBL	2	3400	516	.15	409	.12
WBT	3	5100	1436	.28*	1792	.35*
WBR	1	1700	155	.09	451	.27
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .76

302 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	217	.06*	677	.20
NBT	3	5100	460	.09	1980	.39*
NBR	f		215		482	
SBL	2	3400	308	.09	391	.12*
SBT	3	5100	2269	.44*	754	.15
SBR	1	1700	99	.06	156	.09
EBL	2	3400	146	.04*	177	.05
EBT	3	5100	318	.06	570	.11*
EBR	f		616		223	
WBL	2	3400	475	.14	385	.11*
WBT	3	5100	854	.17*	449	.09
WBR	d	1700	324	.19	387	.23
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .76 .78

303 . Sand Canyon. Av. at I-5 NB Ramps

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	275	.08*	710	.21
NBT	4	6800	1040	.15	2790	.41*
NBR	d	1700	692	.41	1075	.63
SBL	2	3400	325	.10	231	.07*
SBT	4	6800	3260	.48*	1377	.20
SBR	1	1700	377	.22	244	.14
EBL	1.5		134		344	.10*
EBT	1.5	5100	243	.07*	144	.08
EBR	2	3400	334	.10	232	.07
WBL	2	3400	606	.18*	601	.18
WBT	1.5	5100	298	{.09}	636	{.19}*
WBR	1.5		406		415	
Right Turn Adjustment					NBR	.06*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .86 .88

305 . Sand Canyon. Av. at I-5 SB Ramps

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	4	6800	1326	.20	3888	.57*
NBR	1	1700	88	.05	267	.16
SBL	2	3400	560	.16	493	.15*
SBT	4	6800	3532	.52*	1712	.25
SBR	0	0	0		0	
EBL	2.5		674	.20*	582	.11*
EBT	0	6800	2		0	
EBR	1.5		1118	.33	328	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.13*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .90 .88

316 . SR-133 SB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	241	.14*	72	.04*
SBT	0	0	0		0	
SBR	2	3400	199	.06	138	.04
EBL	0	0	0		0	
EBT	4	6800	1916	.28	1638	.24
EBR	d	1700	225	.13	132	.08
WBL	2	3400	203	.06	208	.06
WBT	3	5100	1795	.35*	2482	.49*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.54		.58

317 . SR-133 NB Ramps at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	56	.03*	188	.11*
NBT	0	0	0		0	
NBR	1	1700	105	.06	410	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	2005	.59*	1660	.49
EBR	f		130		200	
WBL	0	0	0		0	
WBT	3	5100	1994	.45	2572	.56*
WBR	0	0	300		270	
Right Turn Adjustment			NBR	.03*	NBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.70		.80

557 . O St. at C St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		31	{.02}*	31	{.02}*
NBT	1.5	3400	166	.06	334	.11
NBR	0		7		16	
SBL	0.5		46		35	
SBT	1.5	3400	469	.20*	265	.11*
SBR	0		181		69	
EBL	0.5		43	{.03}*	147	{.09}*
EBT	0.5	1700	17	.05	60	.15
EBR	0		21		53	
WBL	0.5		20		22	
WBT	0.5	1700	69	.08*	49	.08*
WBR	0		42		59	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.38		.35

558 . O St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	131	.04*	116	.03
NBT	2	3400	126	.04	438	.13*
NBR	d	1700	54	.03	54	.03
SBL	1	1700	233	.14	128	.08*
SBT	2	3400	475	.14*	188	.06
SBR	f		568		274	
EBL	2	3400	108	.03	484	.14*
EBT	3	5100	1893	.37*	1458	.29
EBR	1	1700	188	.11	177	.10
WBL	2	3400	97	.03*	65	.02
WBT	3	5100	1791	.35	2449	.48*
WBR	1	1700	56	.03	178	.10
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.63		.88

559 . 0 St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	2	3400	146 .04*	427 .13*
NBT	2	3400	50 .02	361 .12
NBR	0	0	4	33
SBL	1	1700	25 .01	44 .03
SBT	2	3400	323 .10*	252 .07*
SBR	1	1700	863 .51	588 .35
EBL	2	3400	520 .15*	699 .21*
EBT	2	3400	372 .11	555 .16
EBR	1	1700	567 .33	369 .22
WBL	1	1700	23 .01	21 .01
WBT	2	3400	545 .17*	459 .15*
WBR	0	0	21	43

Right Turn Adjustment SBR .26* SBR .07*
 Clearance Interval .05* .05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .77 .68

560 . 0 St. at Marine Wy.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	0	0
NBT	0	0	0	0
NBR	0	0	0	0
SBL	2	3400	314 .09*	379 .11*
SBT	0	0	0	0
SBR	1	1700	152 .09	283 .17
EBL	1	1700	57 .03*	285 .17*
EBT	2	3400	926 .27	941 .28
EBR	0	0	0	0
WBL	0	0	0	0
WBT	2	3400	1108 .33*	997 .29*
WBR	1	1700	143 .08	405 .24

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .50 .62

563 . B St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	2	3400	81 .02*	152 .04*
NBT	1	1700	18 .04	22 .06
NBR	0	0	52	86
SBL	1	1700	2 .00	3 .00
SBT	1	1700	24 .02*	20 .02*
SBR	0	0	4	6
EBL	1	1700	7 .00	6 .00
EBT	3	5100	2526 .50*	1600 .31
EBR	1	1700	204 .12	128 .08
WBL	2	3400	122 .04*	62 .02
WBT	3	5100	1745 .34	2892 .57*
WBR	0	0	4	3

Clearance Interval .05* .05*

TOTAL CAPACITY UTILIZATION .63 .68

572 . Modjeska-A St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	23	.01	13	.01
NBT	1	1700	159	.09*	211	.12*
NBR	1	1700	56	.03	38	.02
SBL	2	3400	372	.11*	211	.06*
SBT	1	1700	162	.10	227	.13
SBR	d	1700	151	.09	76	.04
EBL	1	1700	50	.03	121	.07*
EBT	3	5100	2166	.42*	1582	.31
EBR	1	1700	8	.00	23	.01
WBL	1	1700	20	.01*	50	.03
WBT	3	5100	1739	.34	2561	.50*
WBR	1	1700	131	.08	258	.15
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.68		.80

626 . LY St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		21 { .01 }*	35		
NBT	0.5	1700	8 .03	55 .09*		
NBR	0		21	70		
SBL	0.5		49	27 { .02 }*		
SBT	0.5	1700	106 .12*	28 .04		
SBR	0		48	14		
EBL	0.5		8	28		
EBT	0.5	1700	190 .14	327 .23*		
EBR	0		45	35		
WBL	0.5		79	49 { .03 }*		
WBT	0.5	1700	321 .24*	232 .19		
WBR	0		13	38		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .42 .42

627 . LY St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	48 .03*	72 .04*		
NBT	0	0	0	0		
NBR	1	1700	52 .03	78 .05		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	3	5100	2108 .41*	1556 .31		
EBR	1	1700	49 .03	65 .04		
WBL	1	1700	61 .04*	55 .03		
WBT	3	5100	1842 .36	2584 .51*		
WBR	0	0	0	0		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .53 .60

790 . Z St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	46 .03	19 .01*		
NBT	1	1700	33 .02*	59 .03		
NBR	1	1700	51 .03	22 .01		
SBL	1	1700	125 .07*	37 .02		
SBT	1	1700	82 .05	72 .04*		
SBR	1	1700	113 .07	32 .02		
EBL	1	1700	14 .01	63 .04*		
EBT	3	5100	2604 .51*	1731 .34		
EBR	1	1700	14 .01	46 .03		
WBL	1	1700	14 .01*	42 .02		
WBT	3	5100	1791 .35	2929 .57*		
WBR	1	1700	14 .01	58 .03		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .66 .71

799 . B St. at Marine Wy.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	91 .05	54 .03		
NBT	1	1700	37 .04*	54 .04*		
NBR	0	0	23	13		
SBL	1	1700	125 .07*	62 .04*		
SBT	1	1700	54 .03	49 .03		
SBR	1	1700	496 .29	255 .15		
EBL	1	1700	145 .09*	409 .24*		
EBT	2	3400	802 .25	915 .29		
EBR	0	0	35	81		
WBL	1	1700	11 .01	20 .01		
WBT	2	3400	954 .28*	990 .29*		
WBR	1	1700	38 .02	107 .06		
Right Turn Adjustment		SBR		.16*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .66

800 . LQ St. at Irvine Bl.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	54	.02*	30	.01
NBT	1	1700	61	.04	149	.09*
NBR	1	1700	158	.09	88	.05
SBL	1	1700	85	.05	34	.02*
SBT	1	1700	115	.08*	76	.05
SBR	0	0	29		12	
EBL	1	1700	8	.00	40	.02*
EBT	3	5100	2662	.52*	1721	.34
EBR	1	1700	29	.02	53	.03
WBL	2	3400	75	.02*	121	.04
WBT	3	5100	1740	.34	2854	.56*
WBR	1	1700	21	.01	92	.05
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.74

603 . O St. at LN St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	19	.01*	62	.04
NBT	2	3400	162	.06	400	.16*
NBR	0	0	32		157	
SBL	1	1700	14	.01	22	.01*
SBT	2	3400	563	.17*	326	.10
SBR	0	0	8		9	
EBL	1	1700	8	.00	6	.00
EBT	1	1700	14	.05*	21	.03*
EBR	0	0	79		34	
WBL	1	1700	125	.07*	80	.05*
WBT	1	1700	13	.01	19	.02
WBR	0	0	12		14	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.35		.30

605 . O St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		141	{.08}*	122	
NBT	1.5	3400	212	.14	653	.29*
NBR	0		128		224	
SBL	0.5		28		29	{.02}*
SBT	1.5	3400	813	.26*	450	.15
SBR	0		27		16	
EBL	0.5		4		21	
EBT	0.5	1700	24	.06*	67	.12*
EBR	0		82		114	
WBL	0.5		255	{.15}*	136	{.08}*
WBT	0.5	1700	82	.21	42	.12
WBR	0		14		25	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.60		.56

608 . O St. at LV St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	47	.03*	48	.03
NBT	2	3400	117	.04	577	.18*
NBR	0	0	8		41	
SBL	1	1700	21	.01	33	.02*
SBT	2	3400	608	.22*	507	.16
SBR	0	0	129		32	
EBL	1	1700	20	.01*	68	.04
EBT	1	1700	11	.03	46	.08*
EBR	0	0	39		86	
WBL	1	1700	24	.01	50	.03*
WBT	1	1700	44	.03*	29	.04
WBR	0	0	12		40	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.34		.36

610 . "LM" St at LN St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	9 { .01}*	16		
NBT	1	1700	6 .01	31 .04*		
NBR	0	0	5	25		
SBL	0	0	16	19 { .01}*		
SBT	1	1700	57 .06*	19 .03		
SBR	0	0	27	13		
EBL	0	0	5	22		
EBT	1	1700	39 .04	156 .11*		
EBR	0	0	16	17		
WBL	0	0	27	14 { .01}*		
WBT	1	1700	114 .09*	81 .07		
WBR	0	0	9	18		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.21	.22		

611 . "LM" St at "VV" St

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	6	7		
NBT	1	1700	4 .01	12 .01		
NBR	0	0	1	1		
SBL	0	0	6	4		
SBT	1	1700	8 .06*	10 .03*		
SBR	0	0	87	36		
EBL	0	0	14 { .01}*	55		
EBT	1	1700	14 .02	35 .06*		
EBR	0	0	2	10		
WBL	0	0	1	1		
WBT	1	1700	37 .02*	17 .01		
WBR	0	0	3	3		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.14	.14		

613 . C St. at LN St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	16 { .01}*	26		
NBT	1	1700	38 .04	68 .08*		
NBR	0	0	17	46		
SBL	0	0	11	20 { .01}*		
SBT	1	1700	39 .04*	38 .04		
SBR	0	0	10	12		
EBL	0	0	11 { .01}*	20		
EBT	1	1700	42 .04	124 .10*		
EBR	0	0	17	26		
WBL	0	0	34	26 { .02}*		
WBT	1	1700	84 .08*	73 .07		
WBR	0	0	22	21		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.19	.26		

614 . C St. at "VV" St

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	7	6		
NBT	1	1700	50 .04	111 .08*		
NBR	0	0	3	12		
SBL	0	0	4	12 { .01}*		
SBT	1	1700	73 .05*	71 .05		
SBR	0	0	13	6		
EBL	0	0	8	15 { .01}*		
EBT	1	1700	4 .01	15 .02		
EBR	0	0	7	10		
WBL	0	0	14	9		
WBT	1	1700	21 .03*	7 .02*		
WBR	0	0	15	14		
Clearance Interval					.05*	.05*
TOTAL CAPACITY UTILIZATION			.13	.17		

615 . C St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	27	{.02}*	38	
NBT	1	1700	21	.05	93	.14*
NBR	0	0	33		109	
SBL	0	0	36		35	{.02}*
SBT	1	1700	66	.08*	53	.06
SBR	0	0	29		12	
EBL	1	1700	12	.01*	24	.01
EBT	1	1700	160	.11	246	.17*
EBR	0	0	31		40	
WBL	1	1700	72	.04	77	.05*
WBT	1	1700	294	.19*	160	.12
WBR	0	0	27		43	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .35 .43

617 . C St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	70	.04*	134	.08*
NBT	1	1700	29	.02	190	.13
NBR	0	0	3		26	
SBL	1	1700	5	.00	12	.01
SBT	1	1700	135	.15*	125	.11*
SBR	0	0	114		62	
EBL	1	1700	45	.03*	83	.05
EBT	1	1700	42	.10	104	.13*
EBR	0	0	126		112	
WBL	1	1700	19	.01	17	.01*
WBT	1	1700	146	.09*	80	.05
WBR	0	0	7		13	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .36 .38

631 . LY St. at Trabuco Rd.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	15	.01*	72	.04*
NBT	1	1700	25	.01	131	.08
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1700	95	.06*	96	.06*
SBR	1	1700	125	.07	18	.01
EBL	1	1700	35	.02*	29	.02*
EBT	0	0	0		0	
EBR	1	1700	15	.01	84	.05
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .14 .17

782 . A St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		42		34	
SBT	0	1700	0	.05*	0	.03*
SBR	0.5		40		25	
EBL	0.5		8		19	
EBT	0.5	1700	268	.16	371	.23*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	330	.20*	289	.18
WBR	0	0	12		21	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .30 .31

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	0.5		5		4	
SBT	0	1700	0	.01*	0	.01*
SBR	0.5		5		6	
EBL	1	1700	5	.00	12	.01
EBT	1	1700	325	.19*	361	.21*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	305	.18	318	.19
WBR	0	0	5		8	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.25		.27

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	41	.02*	57	.03*
NBT	1	1700	70	.06	72	.07
NBR	0	0	29		41	
SBL	1	1700	25	.01	38	.02
SBT	1	1700	58	.06*	81	.08*
SBR	0	0	37		52	
EBL	1	1700	58	.03*	47	.03
EBT	1	1700	218	.16	251	.18*
EBR	0	0	54		62	
WBL	1	1700	40	.02	38	.02*
WBT	1	1700	236	.16*	212	.14
WBR	0	0	44		31	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.32		.36

787 . Z St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	0	0	0	0			
NBT	0	0	0	0			
NBR	0	0	0	0			
SBL	0.5		5	4			
SBT	0	1700	0 .01*	0 .01*			
SBR	0.5		5	6			
EBL	1	1700	5 .00	12 .01			
EBT	1	1700	325 .19*	361 .21*			
EBR	0	0	0	0			
WBL	0	0	0	0			
WBT	1	1700	305 .18	318 .19			
WBR	0	0	5	8			
Clearance Interval					.05*	.05*	
TOTAL CAPACITY UTILIZATION			.25	.27			

798 . B St. at LQ St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	1	1700	41 .02*	57 .03*			
NBT	1	1700	70 .06	72 .07			
NBR	0	0	29	41			
SBL	1	1700	25 .01	38 .02			
SBT	1	1700	58 .06*	81 .08*			
SBR	0	0	37	52			
EBL	1	1700	58 .03*	47 .03			
EBT	1	1700	218 .16	251 .18*			
EBR	0	0	54	62			
WBL	1	1700	40 .02	38 .02*			
WBT	1	1700	236 .16*	212 .14			
WBR	0	0	44	31			
Clearance Interval					.05*	.05*	
TOTAL CAPACITY UTILIZATION			.32	.36			

629 . LY St. at LN St.

ITAM 8.4-10 P30 Pend Opt2 (IRVINE ISEC)							
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C			
NBL	0	0	8	23			
NBT	1	1700	11 .02	62 .07*			
NBR	0	0	11	34			
SBL	0	0	13	19 { .01 }*			
SBT	1	1700	79 .06*	29 .04			
SBR	0	0	9	13			
EBL	0	0	6	23			
EBT	1	1700	56 .06	117 .09*			
EBR	0	0	39	20			
WBL	0	0	93	21 { .01 }*			
WBT	1	1700	94 .12*	84 .08			
WBR	0	0	14	24			
Clearance Interval					.05*	.05*	
TOTAL CAPACITY UTILIZATION			.23	.23			

PROJECT TRIP DISTRIBUTION MEMO

WITH PROJECT



Memorandum

To/Attention	Kerwin Lau	Date	October 10, 2013
From	Bill Delo	Project No	34735
cc	Peter Garcia, Dwayne Mears	Steno	ch
Subject	IUSD K-8 School Trip Generation and Distribution		

The purpose of this technical memorandum is to summarize the trip generation and distribution assumptions that will be used in the traffic impact analysis for the Irvine Unified School District's proposed K-8 school located in District 1 North.

Background

K-8 School

The Irvine Unified School District plans to build a new K-8 school facility at the southwest corner of "C" Street and "LN" Street, east of Sand Canyon Avenue and Highway 133 and west of Alton Parkway. The project site is on a portion of the former Marine Corps Air Station El Toro (MCAS El Toro), in Planning Area 51, Orange County Great Park, of the City of Irvine General Plan. The school is scheduled to open in the year 2016 with a capacity of 1,000 students.

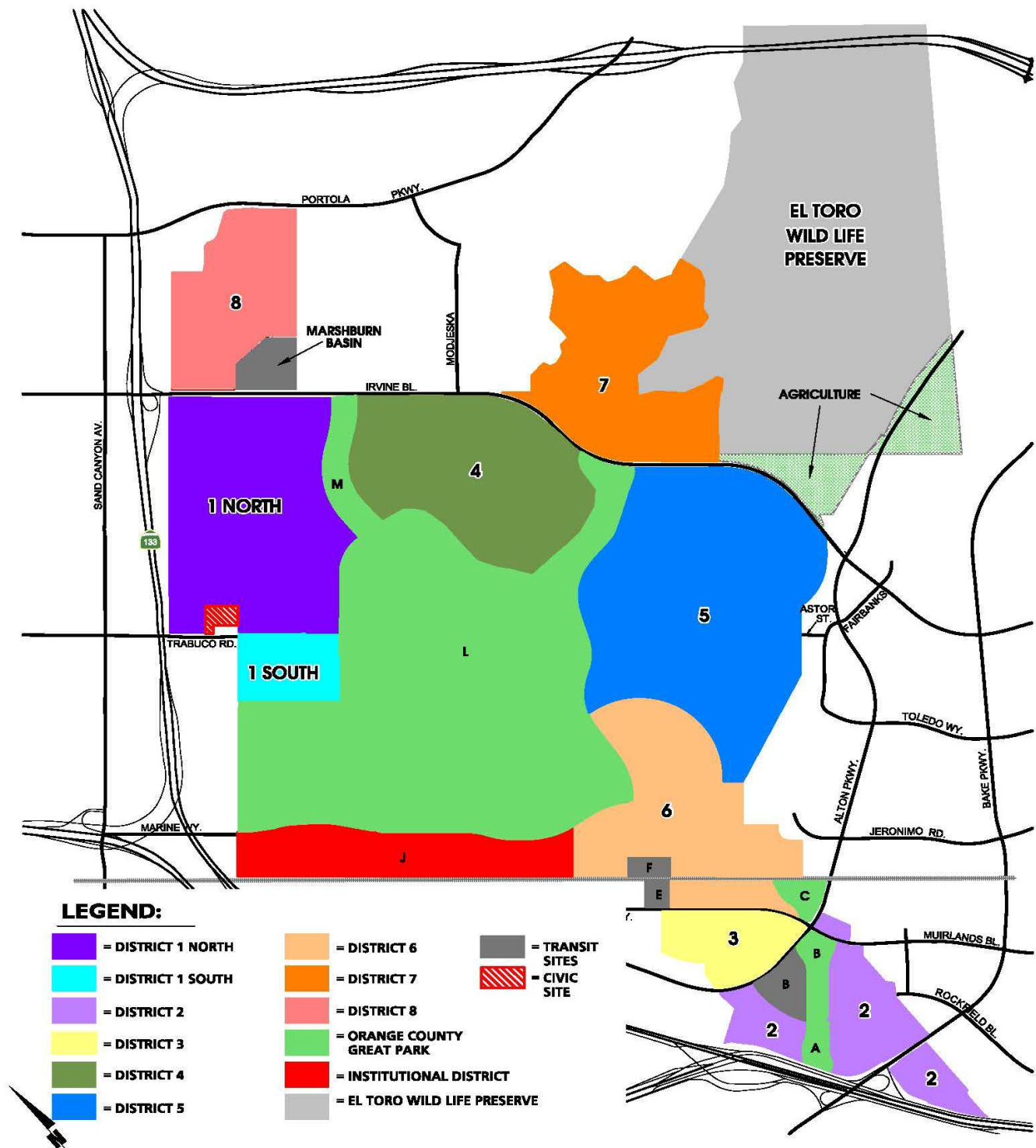
Great Park Neighborhoods Development

As part of the Great Park Neighborhoods Project, the MCAS El Toro site will be developed into master-planned neighborhoods or "Districts" that include a variety of housing, shops, restaurants, workplaces, educational institutions, parks, trails and outdoor activities. In 2011, the Heritage Fields/Great Park Neighborhoods Project was approved (the "2011 Approved Project") to develop 4,712 residential dwelling units (2,741 single family detached and 1,971 multi-family units) and over six million square feet of non-residential uses in the buildout condition. The 2011 Approved Project includes the K-8 school as part of its land use plan.

In 2012, a General Plan Amendment and Zone Change (the "2012 Modified Project") was prepared that included two development options with an increase in residential development units and a decrease in non-residential acreage compared to the 2011 Approved Project. The Project Area Districts as illustrated in Exhibit 2-2 of the Heritage Fields Project 2012 General Plan Amendment/Zone Change Traffic Study are provided in Figure 1. The 2012 Modified Project Options 1 and 2 each include 9,318 residential dwelling units (3,358 single family detached and 5,960 multi-family units) but propose a slightly different allocation of those units between neighborhood Districts 1N and 1S. In both the 2012 Modified Project Options 1 and 2, the K-8 school is included in the buildout scenario.

The 2012 Modified Project Option 1 proposes the same level of single family detached and multi-family residential development as the 2011 Approved Project, with the following exceptions:

Figure 1 - Heritage Fields Project Area Districts



Source: Heritage Fields Project 2012 - GPA/ZC Traffic Study Exhibit 2-2

Kerwin Lau – October 10, 2013

- In District 5, the community recreational and retail land uses proposed in the 2011 Approved Project are replaced with 1,194 single family detached residential units and 1,690 multi-family residential units.
- In District 6, the mortuary, golf, agriculture, educational institution and research and development land uses proposed in the 2011 Approved Project are replaced with 1,722 multi-family residential units along with multi-use land use.
- In District 7, the 840 single family detached residential units proposed in the 2011 Approved Project are replaced with 692 single family detached residential units and 148 multi-family residential units.

The 2012 Modified Project Option 2 proposes the same level of single family detached and multi-family residential development as the 2012 Modified Project Option 1, with the following exceptions:

- In District 1N, 258 additional multi-family residential units are proposed in place of retail land use in Option 2.
- In District 1S, the 429 multi-family residential units proposed in Option 1 are replaced with 171 multi-family residential units plus retail and multi-use land uses.

The levels of residential development proposed for Districts 1 North, 1 South, 2, 3, and 4 in the 2011 Approved Project and 2012 Modified Project Options 1 and 2 in the Year 2015 and Post-2030 conditions are summarized in Table 1.

Table 1 - Residential Development Summary (DUs)⁽¹⁾

District	2015 Conditions			Post-2030 Conditions		
	2011 AP	2012 MP Option 1	2012 MP Option 2	2011 AP	2012 MP Option 1	2012 MP Option 2
1N	494 SFD 1,121 MF	494 SFD 1,121 MF	494 SFD 1,379 MF	494 SFD 1,121 MF	494 SFD 1,121 MF	494 SFD 1,379 MF
1S	--	429 MF	171 MF	429 MF	429 MF	171 MF
2	--	--	--	--	--	--
3	--	--	--	--	--	--
4	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF
Total SFD	988	988	988	988	988	988
Total MF	1,729	2,158	2,158	2,158	2,158	2,158
Total Units	2,717	3,146	3,146	3,146	3,146	3,146

Source: Heritage Fields Project 2012 GPA/ZC Traffic Study Tables 2-1 and 2-2

AP – Approved Project; DU – dwelling units; MF – multi-family; MP – Modified Project; SFD – single family detached

Note: (1) Senior housing units not included in this table and in the trip distribution assumptions.

IUSD Boundaries

The attendance area for the K-8 school is assumed to be within the boundaries of District 1 North, District 1 South, and District 4.

Kerwin Lau – October 10, 2013

Analysis Scenarios

The traffic analysis for the K-8 school project will include the following scenarios. This list is contingent on the availability of this data as part of the “baseline” and “pending” versions of ITAM and subject to change based on direction from the City of Irvine.

- No Project Condition
 - 2011 Approved Project
 - 2012 Modified Project Option 1
 - 2012 Modified Project Option 2
- With Project Condition
 - 2011 Approved Project
 - 2012 Modified Project Option 1
 - 2012 Modified Project Option 2

An AM peak hour analysis for each scenario will be made for the following timeframes:

- Existing Condition (Year 2013)
- Interim (Year 2017)
- Interim (Year 2035)
- Buildout (Post-2035)

Project Trip Generation

The trip generation for the K-8 school project has been estimated using rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. The trip generation rates and the forecast trip volumes for the Elementary School land use category (ITE Code 520) are summarized in Table 2.

**Table 2 - ITE Trip Generation for an Elementary School Land Use (Code 520)
with a Capacity of 1,000 Students**

	Weekday	AM		
		In	Out	Total
Rates	1.29	0.248	0.202	0.45
Trips	1,290	248	202	450

Kerwin Lau – October 10, 2013

Project Trip Distribution

The project trip distribution for each analysis scenario has been developed based on the following assumptions:

- 5% of the project trips are generated by faculty and staff originating outside of the City of Irvine.
- 5% of the project trips are generated by faculty and staff originating within the City of Irvine but outside of the K-8 school attendance area boundary.
- The number of trips originating from each sub-area within the K-8 school attendance area boundary is proportional to the number of residential dwelling units located in that sub-area.

Based on future development of the proposed Great Park Neighborhoods development, there is an estimated 2,717 (in 2011 Approved Project) and 3,146 (in 2012 Modified Project Options 1 and 2) residential housing units that will be located within the K-8 school attendance area. Figure 2 shows the number of housing units in each area in the Interim Year 2017. Figure 3 shows the number of units in each area in the Year 2035 and Post-2035 conditions. The majority of the trips will come from District 1 North, 1 South, and 4. Another K-8 school is proposed in District 5/6, and an elementary school is proposed in District 8. A few trips are assumed to originate from District 8 to account for students attending the K-8 school upon graduating the proposed elementary school in District 8.

The trip origin and destination assumptions for each of the Interim Year 2017 scenarios are summarized in Table 3, and the assumptions for Year 2035 and Post-2035 are provided in Table 4.

Table 3 - Project Opening Year 2017 Trip Distribution Assumptions

Trip Origins/Destinations	2011 AP		2012 MP Option 1		2012 MP Option 2	
	DU	%	DU	%	DU	%
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	53%	1,615	46%	1,873	54%
District 1 South	-	0%	429	12%	171	5%
District 4	1,102	37%	1,102	32%	1,102	32%
Total	2,717	100%	3,146	100%	3,146	101%

Table 4 - Year 2035 and Post-2035 Trip Distribution Assumptions

Trip Origins/Destinations	2011 AP		2012 MP Option 1		2012 MP Option 2	
	DU	%	DU	%	DU	%
Faculty/Staff	-	10%	-	10%	-	10%
District 1 North	1,615	46%	1,615	46%	1,873	54%
District 1 South	429	12%	429	12%	171	5%
District 4	1,102	32%	1,102	32%	1,102	32%
Total	3,146	100%	3,146	100%	3,146	100%

Figure 2 - Opening Year 2017 Residential Dwelling Units

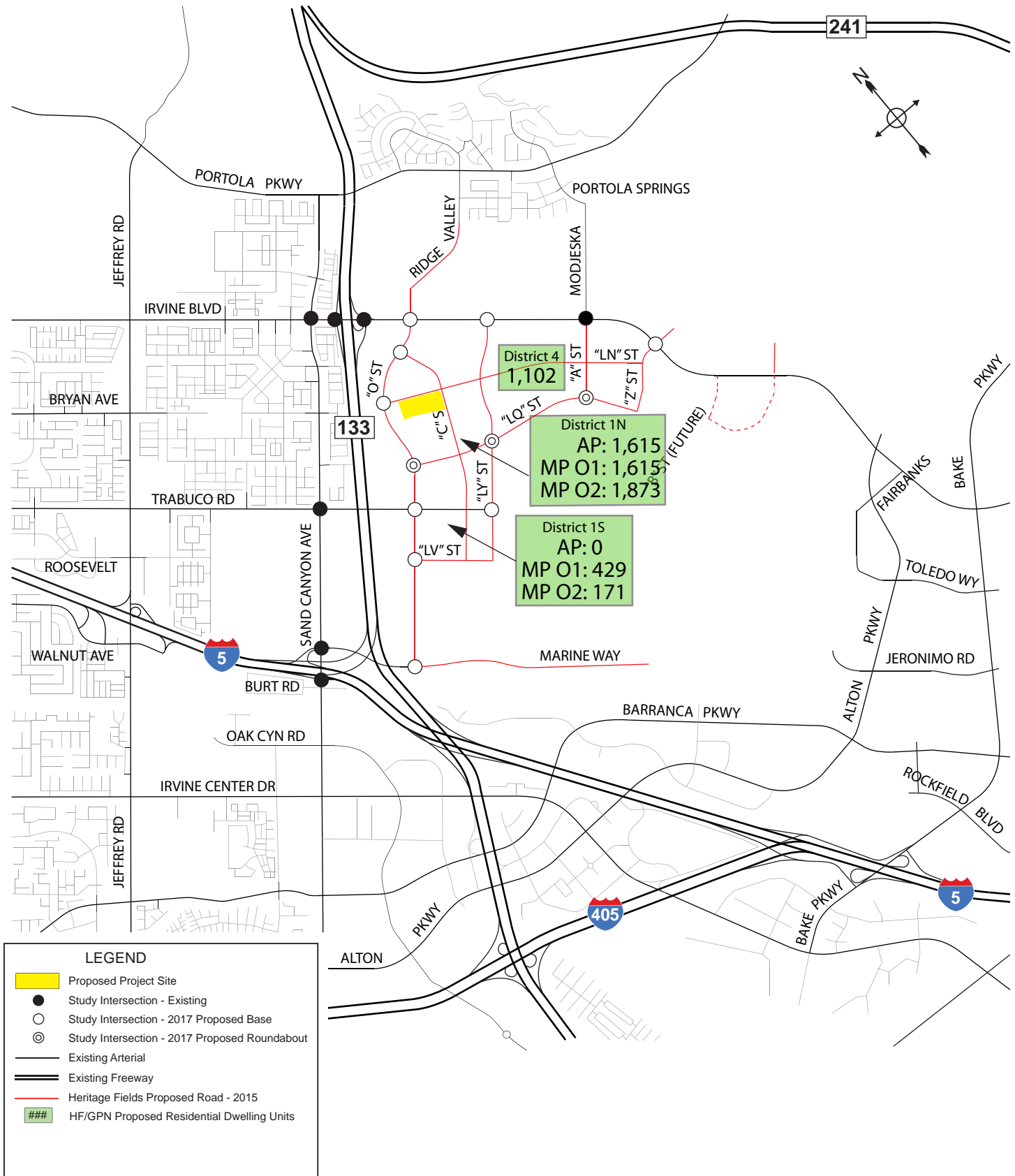
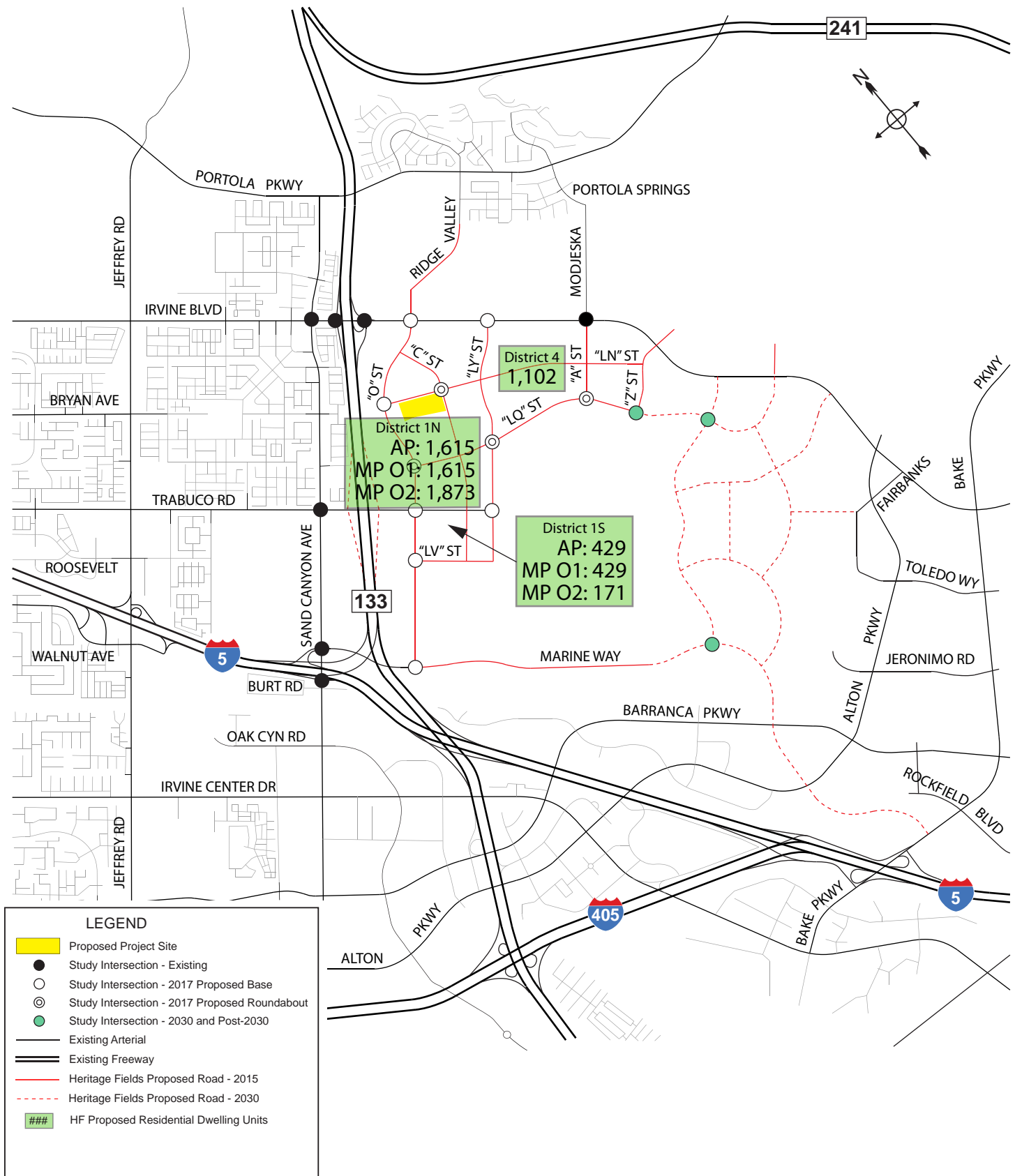


Figure 3 - Year 2035 and Post-2035 Residential Dwelling Units



Kerwin Lau – October 10, 2013

Year 2017 Project Trip Distribution

The inbound project trip distribution through the study area during the AM peak time period in the Interim Year 2017 with the 2011 Approved Project is shown in Figure 4, and the outbound trip distribution is shown in Figure 5. During both the AM peak period, inbound trips to the project site are assumed to originate at home. For the outbound trips, 60% are assumed to return home and 40% are assumed to go to work. Therefore, the inbound and outbound trip distribution percentages differs slightly during the AM peak time periods. The site circulation for this scenario is shown in Figure 6.

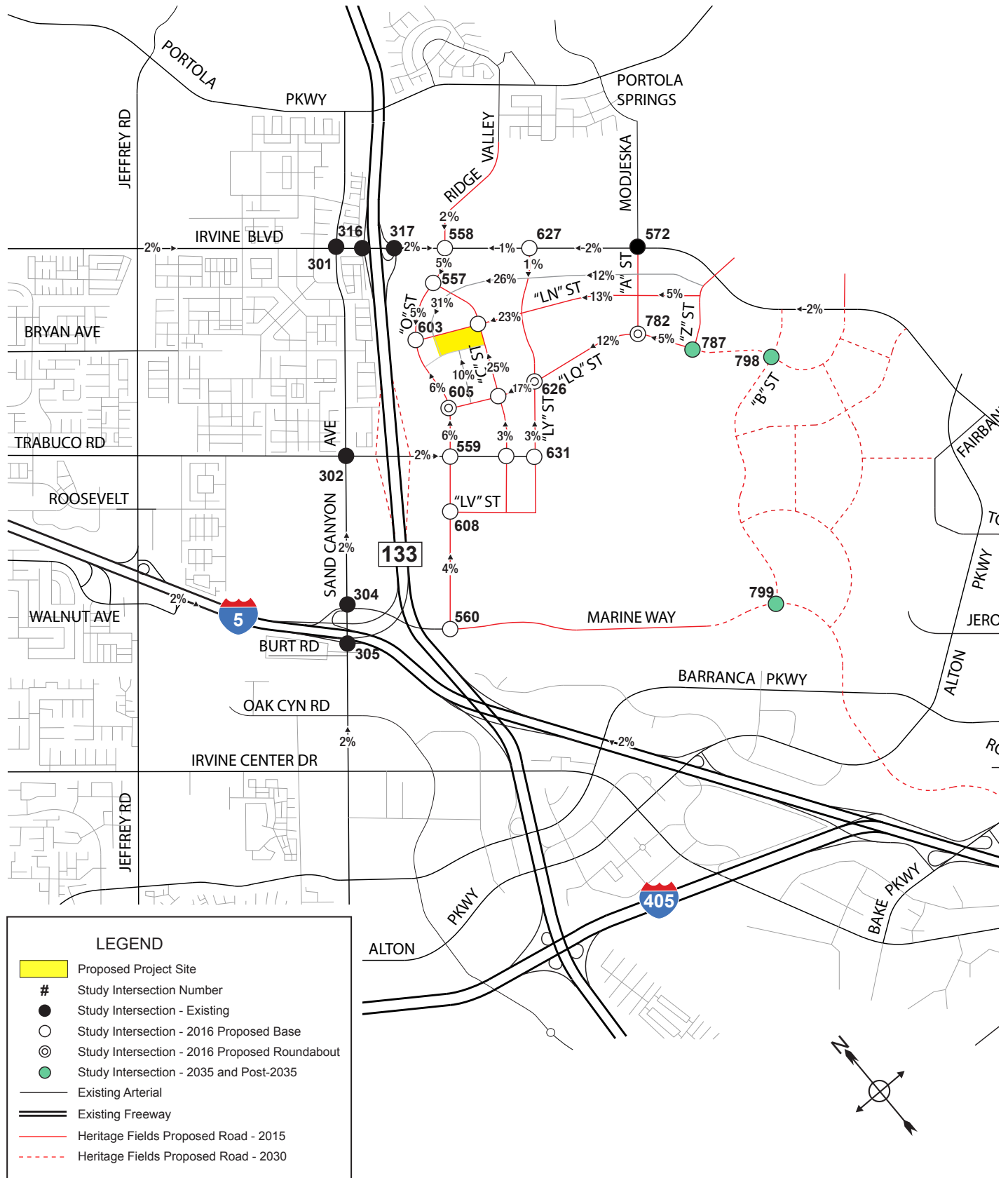
The Interim Year 2017 AM inbound trip distribution through the study area with 2012 Modified Project Option 1 is shown in Figure 7, and the outbound trip distribution is shown in Figure 8. The site circulation for the Interim Year 2017 (2012 Modified Project Option 1) is shown in Figure 9. The inbound trip distribution for Modified Project Option 2 is shown in Figure 10, and the outbound trip distribution is shown in Figure 11. The site circulation for this scenario is shown in Figure 12.

Year 2035 Project Trip Distribution

The inbound, outbound and site circulation project trip distribution through the study area during the AM peak time period in the Year 2035 and Post-2035 with the 2011 Approved Project and the 2012 Modified Project Option 1 is the same as the Year 2017 with the 2012 Modified Project Option 1. Based on the proposed residential buildout outlined in the 2012 Heritage Fields Great Park Neighborhood Traffic Study, these 3 scenarios are shown to have the same residential assumptions.

The Year 2035 and Post-2035 AM inbound trip distribution through the study area with 2012 Modified Project Option 2 is the same as the Year 2017 trip distribution shown in Figures 10, 11, and 12.

Figure 4 - Year 2017 (2011 AP) Trip Distribution - Inbound



[illegible]

Figure 6 - Site Circulation (2011 AP) - Year 2017 Trip Distribution

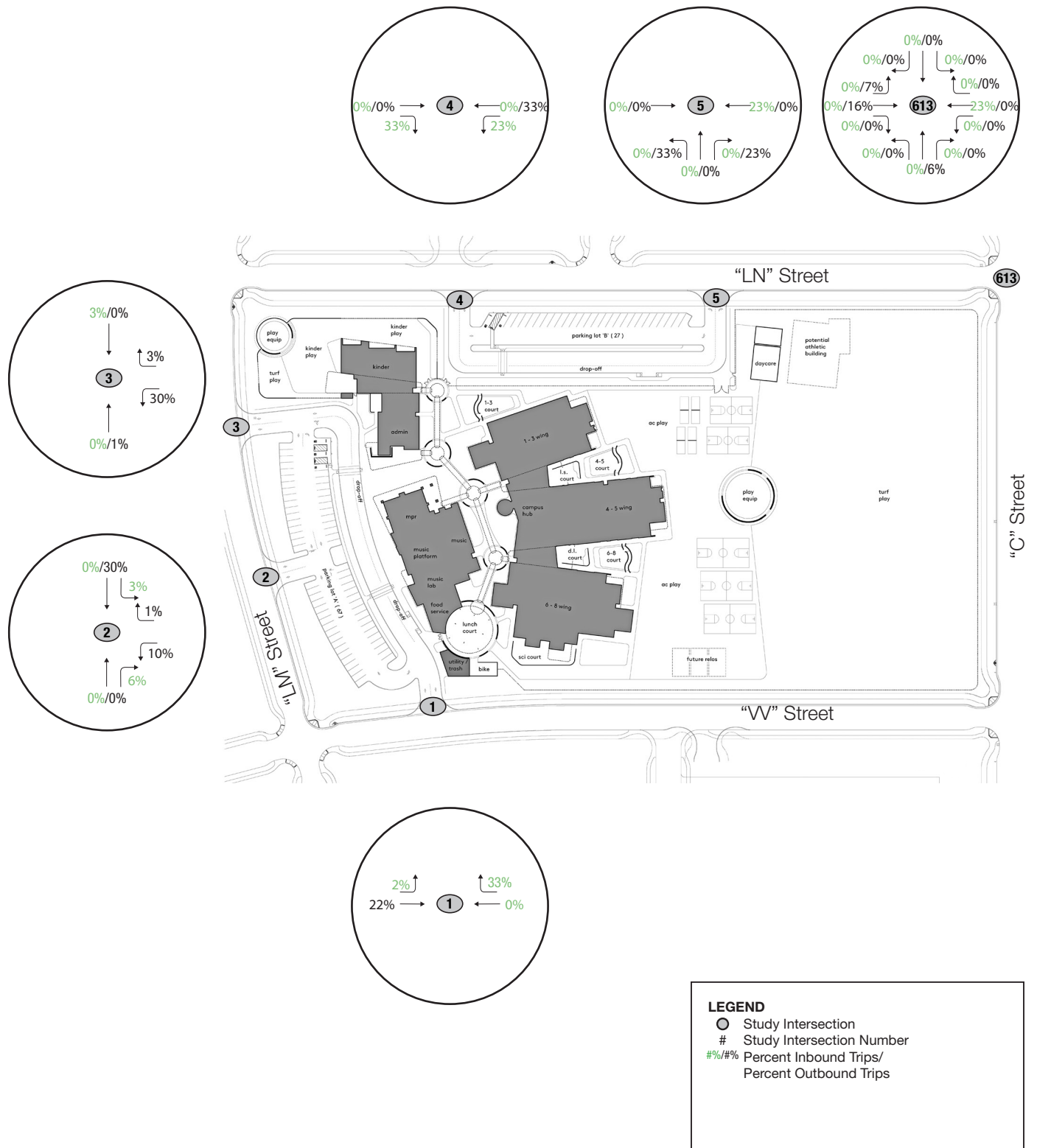
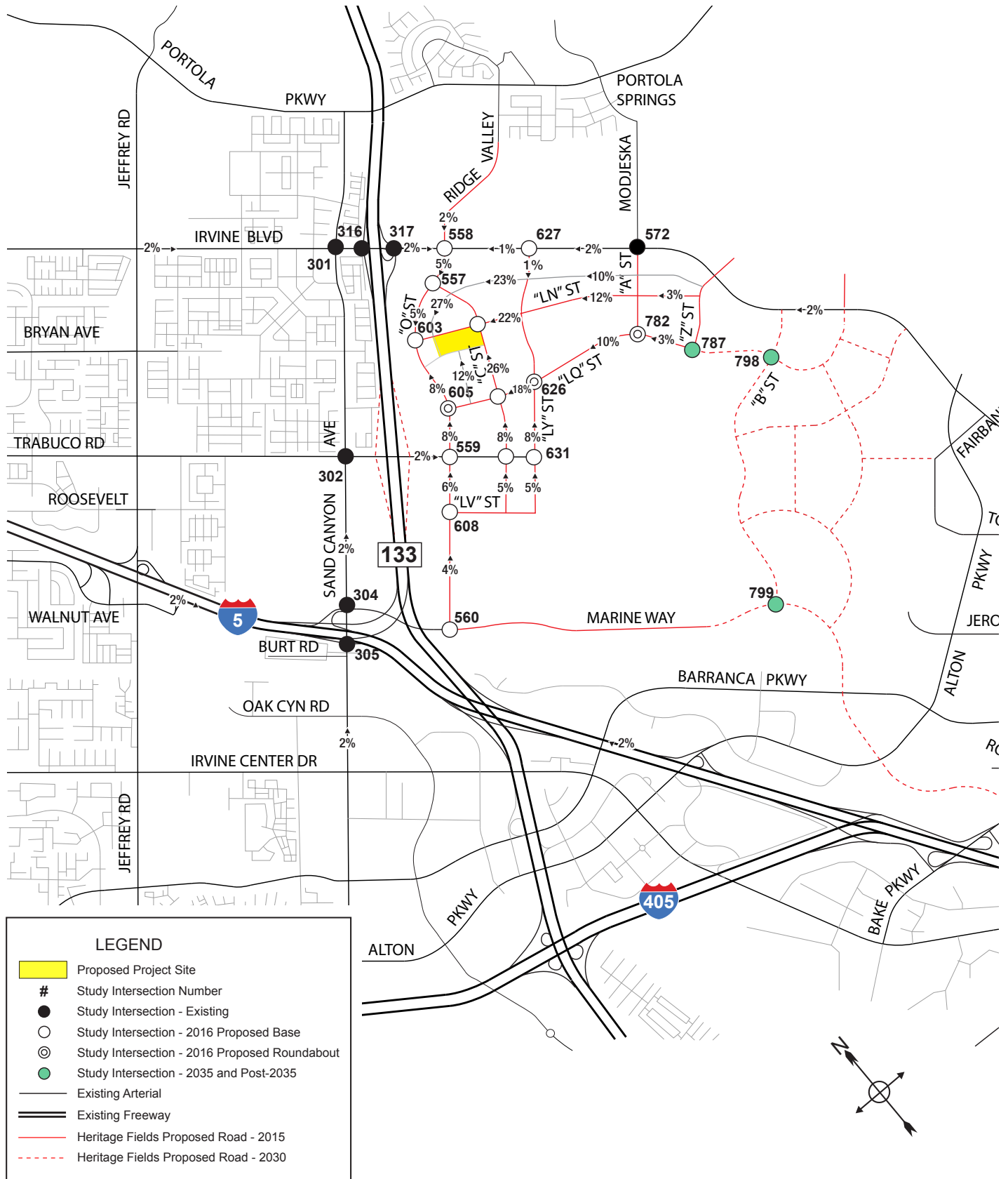
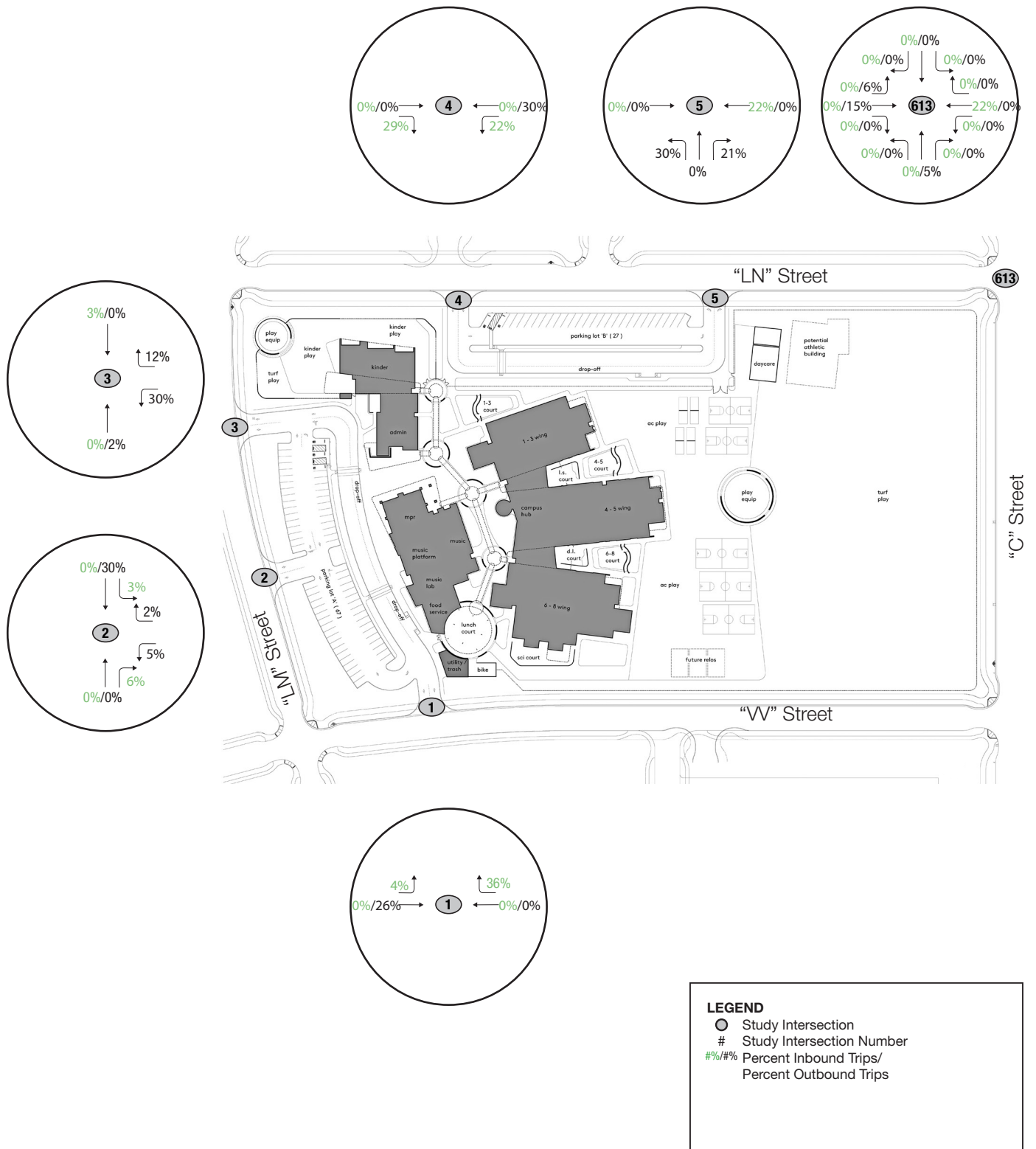


Figure 7 - Year 2017 & 3025 (2012 MP1)
Trip Distribution - Inbound



[illegible]

Figure 9 - Site Circulation (2012 MP1) - Year 2017 & 2035 Trip Distribution



[illegible]

The map displays the Ridge Valley area, including Portola Springs and Ridge Valley. Key roads shown include Portola Pkwy, Irvine Blvd, Bryan Ave, Trabuco Rd, Roosevelt, Walnut Ave, Burt Rd, Oak Cyn Rd, Irvine Center Dr, Alton Pkwy, Bake Pkwy, and Marine Way. The proposed project site is highlighted in yellow. Study intersections are marked with numbers and symbols: existing intersections (black dots), 2016 proposed base intersections (white circles), 2016 proposed roundabout intersections (circles with a dot), and 2035 and post-2035 intersections (green circles). Proposed roads for 2015 are shown in solid red, and for 2030 in dashed red. A legend in the bottom left corner defines the symbols and line types. A north arrow is located in the bottom right corner.

LEGEND

- Proposed Project Site
- # Study Intersection Number
- Study Intersection - Existing
- Study Intersection - 2016 Proposed Base
- ⊙ Study Intersection - 2016 Proposed Roundabout
- Study Intersection - 2035 and Post-2035
- Existing Arterial
- Existing Freeway
- Heritage Fields Proposed Road - 2015
- - - Heritage Fields Proposed Road - 2030

Figure 12 - Site Circulation (2012 MP2) - Year 2017 & 2035 Trip Distribution



INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2014 – WITH PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	LOS	Base		LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000 D/V
# 2 "LM" St & Driveway 2	A	8.4	0.019	A	8.4	0.019	+ 0.000 D/V
# 3 "LM" St & Driveway 3	A	8.7	0.060	A	8.7	0.060	+ 0.000 D/V
# 4 Driveway 4 & "LN" St	A	7.4	0.037	A	7.4	0.037	+ 0.000 D/V
# 5 Driveway 5 & "LN" St	A	8.8	0.070	A	8.8	0.070	+ 0.000 D/V
#558 "O" St & Irvine Blvd	A	xxxxxx	0.309	A	xxxxxx	0.309	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.299	A	xxxxxx	0.299	+ 0.000 V/C

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Signal Warrant Summary Report			
Intersection	Base Met	Future Met	
	[Del / Vol]	[Del / Vol]	
# 1 Driveway 1 & "VV" St	??? / No	??? / ???	
# 2 "LM" St & Driveway 2	??? / No	??? / ???	
# 3 "LM" St & Driveway 3	??? / No	??? / ???	
# 4 Driveway 4 & "LN" St	??? / No	??? / ???	
# 5 Driveway 5 & "LN" St	??? / No	??? / ???	

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	5	45	0	0	0	82	
Major Street Volume:	132															
Minor Approach Volume:	0															
Minor Approach Volume Threshold:	982															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		0		15	7		61		0	0		0		0	2		0		20
Major Street Volume:	83																			
Minor Approach Volume:	22																			
Minor Approach Volume Threshold:	1142																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		2		0	0		7		0	0		0		0	61
Major Street Volume:					9											
Minor Approach Volume:					67											
Minor Approach Volume Threshold:	2400															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		0		82	57	67		0
Major Street Volume:					206														
Minor Approach Volume:					0														
Minor Approach Volume Threshold:					829														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	67		0		47	0		0		0	0		0		0	
Major Street Volume:					57											
Minor Approach Volume:					114											
Minor Approach Volume Threshold:					1194											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:

Base Vol:	0	0	0	0	0	0	5	45	0	0	0	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	45	0	0	0	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	45	0	0	0	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	45	0	0	0	82

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	82	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1528	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1528	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: A[8.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	15	7	61	0	0	0	0	2	0	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	15	7	61	0	0	0	0	2	0	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	7	61	0	0	0	0	2	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	15	7	61	0	0	0	0	2	0	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	15	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	52	83	8
Potent Cap.:	xxxxx	xxxxx	xxxxx	1616	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	956	812	1079
Move Cap.:	xxxxx	xxxxx	xxxxx	1616	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	953	808	1079
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.00	0.00	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1066	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.4	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	8.4	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 7.7 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2	0	0	7	0	0	0	0	61	0	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2	0	0	7	0	0	0	0	61	0	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	2	0	0	7	0	0	0	0	61	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2	0	0	7	0	0	0	0	61	0	6

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	1
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1021	xxxx	1089
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1021	xxxx	1089
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.01

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.0	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.8	xxxx	8.3	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.7			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: A[7.4]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	0	0	0	0	0	0	0	0	0	82	57	67	0		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	0	0	0	0	0	0	0	82	57	67	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	0	0	0	0	0	0	0	0	0	82	57	67	0		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
FinalVolume:	0	0	0	0	0	0	0	0	0	0	82	57	67	0		

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound				South Bound				East Bound				West Bound			
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	82	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1528	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1528	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx				

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: A[8.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	67	0	47	0	0	0	0	0	0	0	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	0	47	0	0	0	0	0	0	0	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	0	47	0	0	0	0	0	0	0	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	67	0	47	0	0	0	0	0	0	0	57	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	57	xxxx	0	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	955	xxxx	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	955	xxxx	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.07	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.2	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.1	xxxx	8.4	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	A	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.8			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	A			*			*			*		

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.309

Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	1	0	1	0	1	0	3	0	1	1	0	2	0	1

Volume Module:

Base Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	2	0	0	5	0	0	1319	5	2	984	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	2	0	0	5	0	0	1319	5	2	984	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	2	0	0	5	0	0	1319	5	2	984	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.00	1.00	0.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1700	1700	0	1700	0	1700	5100	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****			****				****	

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.299
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	0	0	16	0	0	0	0	1319	0	2	986	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	16	0	0	0	0	1319	0	2	986	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	16	0	0	0	0	1319	0	2	986	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	16	0	0	0	0	1319	0	2	986	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	16	0	0	0	0	1319	0	2	986	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****				****				

 IUSD K-8 School
 Year 2014 With Project
 2011 Approved Project

 Base Queue Report (cars)

Node	Intersection	Northbound			Southbound			Eastbound			Westbound			
		L	--	T	--	R	L	--	T	--	R	L	--	T
#1	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	
#2	[2Way95thQ]:	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	0.1	0.1	0.1	
#3	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	xxxx	0.0	
#4	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	
#5	[2Way95thQ]:	0.2	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)												
Scenario: Year 2014 (2011 Approved Project) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
0	0	0	0	0	0	340	3060	0	0	0	850	Total Saturation
0	0	0	0	0	0	5	45	0	0	0	82	Volume
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.10	Vol/Sat
Critical Movements												
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT		Initial ICU
V/C	0.00		V/C	0.00		V/C	0.01		V/C	0.00		0.015
Right Turn Capacity Adjustment												
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.00		Right Turn Adjustment
RTOR	0.00		RTOR	0.01		RTOR	0.00		RTOR	0.00		
RTC	0.00		RTC	0.01		RTC	0.01		RTC	0.00		
Addl ICU	0.00		Addl ICU	-0.01		Addl ICU	-0.01		Addl ICU	0.10		
0.00			0.00			0.00			0.10			0.10
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.16

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2014 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	850	350	3050	0	0	0	0	155	0	1545
0	0	15	7	61	0	0	0	0	2	0	20
0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.02		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.02		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.00		RTOR	0.02	
RTC	0.01		RTC	0.03		RTC	-0.01		RTC	0.03	
Addl ICU	0.01		Addl ICU	-0.03		Addl ICU	0.01		Addl ICU	-0.02	
0.01			0.00			0.00			0.00		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.09

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario: Year 2014 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	2	0	0	7	0	0	0	0	61	0	6
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.03		RTC	-0.04		RTC	0.04	
Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	0.04		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.038											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.09											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Year 2014 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	0	1700	1700	1700	0
0	0	0	0	0	0	0	0	82	57	67	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.04	
RTOR	0.04		RTOR	0.00		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.00		RTC	0.01		RTC	0.04	
Addl ICU	-0.03		Addl ICU	0.00		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.04			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.039											
Right Turn Adjustment											
0.04											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.13											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)												
Scenario: Year 2014 (2011 Approved Project) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
1	0	1	0	0	0	0	1	0	0	1	0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1700	0	1700	0	0	0	0	0	0	0	1700	0	Total Saturation
67	0	47	0	0	0	0	0	0	0	57	0	Volume
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	Vol/Sat
Critical Movements												
Direction	NBL		Direction	N/A		Direction	N/A		Direction	WBT		Initial ICU
V/C	0.04		V/C	0.00		V/C	0.00		V/C	0.03		0.073
Right Turn Capacity Adjustment												
RTOG	0.04		RTOG	-0.04		RTOG	0.03		RTOG	0.03		Right Turn Adjustment
RTOR	0.03		RTOR	-0.03		RTOR	0.04		RTOR	0.04		
RTC	0.06		RTC	-0.06		RTC	0.06		RTC	0.06		
Addl ICU	-0.04		Addl ICU	0.06		Addl ICU	-0.06		Addl ICU	-0.06		
0.00			0.00			0.00			0.00		0.00	
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2014 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1700	0	0	0	0	0	5100	1700	1700	3400	0
28	2	0	0	5	0	0	1319	5	2	984	0
0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.00		V/C	0.00		V/C	0.29	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.00		RTOG	0.29		RTOG	0.29	
RTOR	0.03		RTOR	0.00		RTOR	0.02		RTOR	0.02	
RTC	0.04		RTC	0.00		RTC	0.30		RTC	0.30	
Addl ICU	-0.04		Addl ICU	0.00		Addl ICU	-0.30		Addl ICU	-0.30	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.306											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.36											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2014 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0.0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	1700	0	0	0	0	5100	0	1700	3400	0
0	0	16	0	0	0	0	1319	0	2	986	0
0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.26		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.26		RTOG	0.26	
RTOR	0.00		RTOR	-0.03		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	-0.02		RTC	0.26		RTC	0.26	
Addl ICU	0.01		Addl ICU	0.02		Addl ICU	-0.26		Addl ICU	-0.26	
0.01			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.260											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.32											

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2014 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000 D/V
# 2 "LM" St & Driveway 2	A	8.7	0.010	A	8.7	0.010	+ 0.000 D/V
# 3 "LM" St & Driveway 3	A	8.7	0.060	A	8.7	0.060	+ 0.000 D/V
# 4 Driveway 4 & "LN" St	A	7.4	0.036	A	7.4	0.036	+ 0.000 D/V
# 5 Driveway 5 & "LN" St	A	8.8	0.064	A	8.8	0.064	+ 0.000 D/V
#558 "O" St & Irvine Blvd	A	xxxxx	0.309	A	xxxxx	0.309	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.297	A	xxxxx	0.297	+ 0.000 V/C

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Signal Warrant Summary Report			
Intersection	Base Met	Future Met	
	[Del / Vol]	[Del / Vol]	
# 1 Driveway 1 & "VV" St	??? / No	??? / ???	
# 2 "LM" St & Driveway 2	??? / No	??? / ???	
# 3 "LM" St & Driveway 3	??? / No	??? / ???	
# 4 Driveway 4 & "LN" St	??? / No	??? / ???	
# 5 Driveway 5 & "LN" St	??? / No	??? / ???	

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	10	53	0	0	0	89	
Major Street Volume:					152											
Minor Approach Volume:					0											
Minor Approach Volume Threshold:					934											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		0		15	7		61		0	0		0		0	10		0		4
Major Street Volume:	83																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	1142																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		4	0	0		7	0	0		0	0	0	61		0	24	
Major Street Volume:					11													
Minor Approach Volume:					85													
Minor Approach Volume Threshold:					2314													

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		0		72	55	61		0
Major Street Volume:					188														
Minor Approach Volume:					0														
Minor Approach Volume Threshold:					861														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0		0		0	
Major Street Volume:					55											
Minor Approach Volume:					104											
Minor Approach Volume Threshold:					1205											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	53	0	0	0	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	53	0	0	0	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	53	0	0	0	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	53	0	0	0	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	89	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	15	7	61	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	15	7	61	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	7	61	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	15	7	61	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	15	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	52	83	8
Potent Cap.:	xxxxx	xxxxx	xxxxx	1616	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	956	812	1079
Move Cap.:	xxxxx	xxxxx	xxxxx	1616	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	953	808	1079
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	986	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	8.7	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 7.7 Worst Case Level Of Service: A[8.7]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	4	0	0	0	7	0	0	0	0	0	0	61	0	24	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	4	0	0	0	7	0	0	0	0	0	0	61	0	24	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	4	0	0	0	7	0	0	0	0	0	0	61	0	24	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	0	4	0	0	0	7	0	0	0	0	0	0	61	0	24	

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	8	xxxx	2
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1018	xxxx	1088
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1018	xxxx	1088
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.8	xxxx	8.4			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.7					
ApproachLOS:	*			*			*			A					

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	0	0	0	0	0	0	0	0	0	72	55	61	0		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	0	0	0	0	0	0	0	72	55	61	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	0	0	0	0	0	0	0	0	0	72	55	61	0		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
FinalVolume:	0	0	0	0	0	0	0	0	0	0	72	55	61	0		

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	72	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1541	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1541	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: A[8.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	0	0	0	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	0	0	0	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	0	0	0	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	0	0	0	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	55	xxxx	0	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	958	xxxx	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	958	xxxx	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.06	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.2	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.0	xxxx	8.4	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	A	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.8		xxxxxxx		xxxxxxx		xxxxxxx		xxxxxxx		xxxxxxx	
ApproachLOS:	A		*		*		*		*		*	

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

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.309
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	3	0	1	1

Volume Module:

Base Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	2	0	0	5	0	0	1319	5	2	984	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	2	0	0	5	0	0	1319	5	2	984	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	2	0	0	5	0	0	1319	5	2	984	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.00	1.00	0.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1700	1700	0	1700	0	1700	5100	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****			****				****	

IUSD K-8 School
Year 2014 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.297

Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 32 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1
	0	0	0	0	0	0	0	0	0	2	0	0

Volume Module:

Base Vol:	0	0	12	0	0	0	0	1319	0	2	986	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	12	0	0	0	0	1319	0	2	986	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	12	0	0	0	0	1319	0	2	986	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	12	0	0	0	0	1319	0	2	986	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	12	0	0	0	0	1319	0	2	986	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****			****			****		

IUSD K-8 School
 Year 2014 With Project
 2011 Approved Project

Base Queue Report (cars)

Node	Intersection	Northbound			Southbound			Eastbound			Westbound			
		L	--	T	--	R	L	--	T	--	R	L	--	T
#1	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	
#2	[2Way95thQ]:	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	0.0	0.0	0.0	
#3	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	xxxx	0.1	
#4	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	
#5	[2Way95thQ]:	0.2	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Year 2014 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	340	3060	0	0	0	850
0	0	0	0	0	0	5	45	0	0	0	82
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.01		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.00	
RTOR	0.00		RTOR	0.01		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	0.01		RTC	0.01		RTC	0.00	
Addl ICU	0.00		Addl ICU	-0.01		Addl ICU	-0.01		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.16

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	850	350	3050	0	0	0	0	155	0	1545
0	0	15	7	61	0	0	0	0	2	0	20
0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.02		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.02		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.00		RTOR	0.02	
RTC	0.01		RTC	0.03		RTC	-0.01		RTC	0.03	
Addl ICU	0.01		Addl ICU	-0.03		Addl ICU	0.01		Addl ICU	-0.02	
0.01			0.00			0.00			0.00		
											Initial ICU
											0.033
											Right Turn Adjustment
											0.01
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.09

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario: Year 2014 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	2	0	0	7	0	0	0	0	61	0	6
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.03		RTC	-0.04		RTC	0.04	
Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	0.04		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.038
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.09

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Year 2014 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	0	1700	1700	1700	0
0	0	0	0	0	0	0	0	82	57	67	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.04	
RTOR	0.04		RTOR	0.00		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.00		RTC	0.01		RTC	0.04	
Addl ICU	-0.03		Addl ICU	0.00		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.04			0.00		
											Initial ICU
											0.039
											Right Turn Adjustment
											0.04
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.13

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)												
Scenario: Year 2014 (2012 Modified Project Option 1) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
1	0	1	0	0	0	0	1	0	0	1	0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1700	0	1700	0	0	0	0	0	0	0	1700	0	Total Saturation
67	0	47	0	0	0	0	0	0	0	57	0	Volume
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	Vol/Sat
Critical Movements												
Direction	NBL		Direction	N/A		Direction	N/A		Direction	WBT		Initial ICU
V/C	0.04		V/C	0.00		V/C	0.00		V/C	0.03		0.073
Right Turn Capacity Adjustment												
RTOG	0.04		RTOG	-0.04		RTOG	0.03		RTOG	0.03		Right Turn Adjustment
RTOR	0.03		RTOR	-0.03		RTOR	0.04		RTOR	0.04		
RTC	0.06		RTC	-0.06		RTC	0.06		RTC	0.06		
Addl ICU	-0.04		Addl ICU	0.06		Addl ICU	-0.06		Addl ICU	-0.06		
0.00			0.00			0.00			0.00			0.00
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1700	0	0	0	0	0	5100	1700	1700	3400	0
28	2	0	0	5	0	0	1319	5	2	984	0
0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.00		V/C	0.00		V/C	0.29	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.00		RTOG	0.29		RTOG	0.29	
RTOR	0.03		RTOR	0.00		RTOR	0.02		RTOR	0.02	
RTC	0.04		RTC	0.00		RTC	0.30		RTC	0.30	
Addl ICU	-0.04		Addl ICU	0.00		Addl ICU	-0.30		Addl ICU	-0.30	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.306
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.36

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0.0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	1700	0	0	0	0	5100	0	1700	3400	0
0	0	16	0	0	0	0	1319	0	2	986	0
0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.26		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.26		RTOG	0.26	
RTOR	0.00		RTOR	-0.03		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	-0.02		RTC	0.26		RTC	0.26	
Addl ICU	0.01		Addl ICU	0.02		Addl ICU	-0.26		Addl ICU	-0.26	
0.01			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.260
											Right Turn Adjustment
											0.01
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.32

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2014 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

 IUSD K-8 School
 Year 2014 With Project
 2012 Modified Project Option 2

Impact Analysis Report
 Level Of Service

Intersection	LOS	Base		LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000 D/V
# 2 "LM" St & Driveway 2	A	8.7	0.010	A	8.7	0.010	+ 0.000 D/V
# 3 "LM" St & Driveway 3	A	8.6	0.050	A	8.6	0.050	+ 0.000 D/V
# 4 Driveway 4 & "LN" St	A	7.4	0.037	A	7.4	0.037	+ 0.000 D/V
# 5 Driveway 5 & "LN" St	A	8.8	0.064	A	8.8	0.064	+ 0.000 D/V
#558 "O" St & Irvine Blvd	A	xxxxxx	0.309	A	xxxxxx	0.309	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.297	A	xxxxxx	0.297	+ 0.000 V/C

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Signal Warrant Summary Report			
Intersection	Base Met	Future Met	
	[Del / Vol]	[Del / Vol]	
# 1 Driveway 1 & "VV" St	??? / No	??? / ???	
# 2 "LM" St & Driveway 2	??? / No	??? / ???	
# 3 "LM" St & Driveway 3	??? / No	??? / ???	
# 4 Driveway 4 & "LN" St	??? / No	??? / ???	
# 5 Driveway 5 & "LN" St	??? / No	??? / ???	

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0
FinalVolume:	0		0		0	0		0		0	5		45		0	0		0		89
Major Street Volume:	139																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	965																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		0		15	7		51		0	0		0		0	10		0		4
Major Street Volume:	73																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	1187																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		4	0	0		7	0	0		0	0	0	51		0	30	
Major Street Volume:					11													
Minor Approach Volume:					81													
Minor Approach Volume Threshold:					2314													

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		0		74	57		61		0
Major Street Volume:	192																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	853																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		47	0		0		0	0		0		0	
Major Street Volume:					57											
Minor Approach Volume:					108											
Minor Approach Volume Threshold:					1194											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	5	45	0	0	0	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	45	0	0	0	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	45	0	0	0	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	45	0	0	0	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	89	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	15	7	51	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	15	7	51	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	7	51	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	15	7	51	0	0	0	0	10	0	4

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	15	xxxx	xxxxx	xxxx	xxxx	xxxxx	47	73	8
Potent Cap.:	xxxx	xxxx	xxxxx	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	963	822	1079
Move Cap.:	xxxx	xxxx	xxxxx	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	960	818	1079
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.00

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	991	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				8.7	
ApproachLOS:	*			*			*				A	

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

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	4	0	0	7	0	0	0	0	51	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4	0	0	7	0	0	0	0	51	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	4	0	0	7	0	0	0	0	51	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	4	0	0	7	0	0	0	0	51	0	30

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	8	xxxx	2
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1018	xxxx	1088
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1018	xxxx	1088
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	8.4
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.6		
ApproachLOS:	*			*			*			A		

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

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	0	0	74	57	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	74	57	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	0	74	57	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	0	74	57	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	74	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1538	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1538	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: A[8.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	47	0	0	0	0	0	0	0	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	47	0	0	0	0	0	0	0	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	47	0	0	0	0	0	0	0	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	47	0	0	0	0	0	0	0	57	0

Critical Gap Module:

Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	57	xxxx	0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	955	xxxx	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	955	xxxx	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.06	xxxx	0.04	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	0.2	xxxx	0.1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	A	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.8		xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	A		*		*		*		*		*	

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

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.309
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	3	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	2	0	0	5	0	0	1319	5	2	984	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	2	0	0	5	0	0	1319	5	2	984	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	2	0	0	5	0	0	1319	5	2	984	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	2	0	0	5	0	0	1319	5	2	984	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.00	1.00	0.00	1.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1700	1700	0	1700	0	1700	5100	1700	1700	3400	1700

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****			****				****	

IUSD K-8 School
Year 2014 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.297

Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 32 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1
	0	0	0	0	0	0	0	0	0	2	0	0

Volume Module:

Base Vol:	0	0	12	0	0	0	0	1319	0	2	986	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	12	0	0	0	0	1319	0	2	986	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	12	0	0	0	0	1319	0	2	986	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	12	0	0	0	0	1319	0	2	986	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	12	0	0	0	0	1319	0	2	986	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Crit Moves:	****			****			****			****		

 IUSD K-8 School
 Year 2014 With Project
 2012 Modified Project Option 2

Base Queue Report (cars)

Node	Intersection	Northbound			Southbound			Eastbound			Westbound			
		L	--	T	--	R	L	--	T	--	R	L	--	T
#1	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	
#2	[2Way95thQ]:	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	0.0	0.0	0.0	
#3	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	xxxx	0.1	
#4	[2Way95thQ]:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	
#5	[2Way95thQ]:	0.2	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)												
Scenario: Year 2014 (2012 Modified Project Option 2) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
0	0	0	0	0	0	340	3060	0	0	0	850	Total Saturation
0	0	0	0	0	0	5	45	0	0	0	82	Volume
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.10	Vol/Sat
Critical Movements												
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT		Initial ICU
V/C	0.00		V/C	0.00		V/C	0.01		V/C	0.00		0.015
Right Turn Capacity Adjustment												
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.00		Right Turn Adjustment
RTOR	0.00		RTOR	0.01		RTOR	0.00		RTOR	0.00		
RTC	0.00		RTC	0.01		RTC	0.01		RTC	0.00		
Addl ICU	0.00		Addl ICU	-0.01		Addl ICU	-0.01		Addl ICU	0.10		
0.00			0.00			0.00			0.10			0.10
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.16

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	850	350	3050	0	0	0	0	155	0	1545
0	0	15	7	61	0	0	0	0	2	0	20
0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.02		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.02		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.00		RTOR	0.02	
RTC	0.01		RTC	0.03		RTC	-0.01		RTC	0.03	
Addl ICU	0.01		Addl ICU	-0.03		Addl ICU	0.01		Addl ICU	-0.02	
0.01			0.00			0.00			0.00		
											Initial ICU
											0.033
											Right Turn Adjustment
											0.01
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.09

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	2	0	0	7	0	0	0	0	61	0	6
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.03		RTC	-0.04		RTC	0.04	
Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	0.04		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.038
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.09

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Year 2014 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	0	1700	1700	1700	0
0	0	0	0	0	0	0	0	82	57	67	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.01		RTOG	0.04	
RTOR	0.04		RTOR	0.00		RTOR	0.00		RTOR	0.00	
RTC	0.03		RTC	0.00		RTC	0.01		RTC	0.04	
Addl ICU	-0.03		Addl ICU	0.00		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.04			0.00		
											Initial ICU
											0.039
											Right Turn Adjustment
											0.04
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.13

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)												
Scenario: Year 2014 (2012 Modified Project Option 2) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
1	0	1	0	0	0	0	1	0	0	1	0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1700	0	1700	0	0	0	0	0	0	0	1700	0	Total Saturation
67	0	47	0	0	0	0	0	0	0	57	0	Volume
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	Vol/Sat
Critical Movements												
Direction	NBL		Direction	N/A		Direction	N/A		Direction	WBT		Initial ICU
V/C	0.04		V/C	0.00		V/C	0.00		V/C	0.03		0.073
Right Turn Capacity Adjustment												
RTOG	0.04		RTOG	-0.04		RTOG	0.03		RTOG	0.03		Right Turn Adjustment
RTOR	0.03		RTOR	-0.03		RTOR	0.04		RTOR	0.04		
RTC	0.06		RTC	-0.06		RTC	0.06		RTC	0.06		
Addl ICU	-0.04		Addl ICU	0.06		Addl ICU	-0.06		Addl ICU	-0.06		
0.00			0.00			0.00			0.00			0.00
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2014 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1700	0	0	0	0	0	5100	1700	1700	3400	0
28	2	0	0	5	0	0	1319	5	2	984	0
0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.00		V/C	0.00		V/C	0.29	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.00		RTOG	0.29		RTOG	0.29	
RTOR	0.03		RTOR	0.00		RTOR	0.02		RTOR	0.02	
RTC	0.04		RTC	0.00		RTC	0.30		RTC	0.30	
Addl ICU	-0.04		Addl ICU	0.00		Addl ICU	-0.30		Addl ICU	-0.30	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.306
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.36

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2014 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0.0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	1700	0	0	0	0	5100	0	1700	3400	0
0	0	16	0	0	0	0	1319	0	2	986	0
0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.26		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.26		RTOG	0.26	
RTOR	0.00		RTOR	-0.03		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	-0.02		RTC	0.26		RTC	0.26	
Addl ICU	0.01		Addl ICU	0.02		Addl ICU	-0.26		Addl ICU	-0.26	
0.01			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.260											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.32											

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2017 – NO PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.5	0.290	A	2.5	0.290	+ 0.000 V/C
#558 "O" St & Irvine Blvd	C	xxxxx	0.788	C	xxxxx	0.788	+ 0.000 V/C
#559 "O" St & Trabuco Rd	A	xxxxx	0.530	A	xxxxx	0.530	+ 0.000 V/C
#603 "O" St & "LN" St	B	13.1	0.161	B	13.1	0.161	+ 0.000 D/V
#605 "O" St & "LQ" St	A	2.7	0.211	A	2.7	0.211	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.8	0.083	B	10.8	0.083	+ 0.000 D/V
#615 "C" St & "LQ" St	B	13.8	0.134	B	13.8	0.134	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.2	0.267	A	4.2	0.267	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.499	A	xxxxx	0.499	+ 0.000 V/C
#629 "LY" St & "LN" St	B	12.4	0.119	B	12.4	0.119	+ 0.000 D/V

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#603 "O" St & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0
FinalVolume:	26	65	12	12	395	25	3	6	22	89	52	14
ApproachDel:	xxxxxx			xxxxxx			11.0			13.1		

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=721]

FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=155]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=721]

FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	26		65		12	12		395		25	3		6		22	89		52		14
Major Street Volume:	535																			
Minor Approach Volume:	155																			
Minor Approach Volume Threshold:	643																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	
FinalVolume:	19		37		18	13		55		13	7		31		13	
ApproachDel:	10.6				10.8				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=74]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=340]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=340]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	19		37	18	13		55	13	7		31	13	35		81	18			
Major Street Volume:					185														
Minor Approach Volume:					81														
Minor Approach Volume Threshold:					669														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	36		20		27	25		64		35	6		83		23	49
ApproachDel:	13.2				13.8				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=83]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=627]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=124]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=627]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	36		20	27	25		64	35	6		83	23	49		244	15
Major Street Volume:	420															
Minor Approach Volume:	124															
Minor Approach Volume Threshold:	584															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	10		28		13	25		143		18	10		44		28	
ApproachDel:	xxxxxx				xxxxxx				10.9				12.4			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=82]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=484]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=165]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=484]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	10		28	13	25		143	18	10		44	28	66		75	24			
Major Street Volume:					237														
Minor Approach Volume:					165														
Minor Approach Volume Threshold:					603														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #557 "O" St & "C" St

Average Delay (sec/veh): 2.5 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	2			2			1			1		

Volume Module:

Base Vol:	7	110	2	79	366	241	59	11	5	10	61	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	110	2	79	366	241	59	11	5	10	61	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	110	2	79	366	241	59	11	5	10	61	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	110	2	79	366	241	59	11	5	10	61	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	110	2	79	366	241	59	11	5	10	61	110

PCE Module:

AutoPCE:	7	110	2	79	366	241	59	11	5	10	61	110
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	7	110	2	79	366	241	59	11	5	10	61	110

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	149	78	455	176
MaxVolume:	2317	2368	954	1105
PedVolume:	0	0	0	0
AdjMaxVol:	2317	2368	954	1105
ApproachVol:	119	686	75	181
ApproachV/C:	0.05	0.29	0.08	0.16
ApproachDel:	1.6	2.1	4.1	3.9
ApproachLOS:	A	A	A	A
Queue:	0.2	1.2	0.3	0.6

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.788
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	2	2	0	3	0	1	2	0	2	0	1

Volume Module:

Base Vol:	230	89	38	92	383	559	89	1560	316	64	1425	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	230	89	38	92	383	559	89	1560	316	64	1425	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	230	89	38	92	383	559	89	1560	316	64	1425	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	230	89	38	92	383	559	89	1560	316	64	1425	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	230	89	38	92	383	559	89	1560	316	64	1425	18

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.40	0.60	1.00	1.00	2.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2383	1017	1700	1700	3400	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.07	0.04	0.04	0.05	0.23	0.16	0.03	0.31	0.19	0.02	0.42	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.530

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	25	14	1	29	5	587	281	208	5	0	383	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	14	1	29	5	587	281	208	5	0	383	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	25	14	1	29	5	587	281	208	0	0	383	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	14	1	29	5	587	281	208	0	0	383	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	25	14	1	29	5	587	281	208	0	0	383	26
OvlAdjVol:	447											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.93	0.07	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.87	0.13
Final Sat.:	1700	1587	113	1700	1700	1700	3400	3400	0	1700	3184	216

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.02	0.00	0.35	0.08	0.06	0.00	0.00	0.12	0.12	
OvlAdjV/S:	0.26												
Crit Moves:	****						****	****					****

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #603 "O" St & "LN" St

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[13.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	26	65	12	12	395	25	3	6	22	89	52	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	65	12	12	395	25	3	6	22	89	52	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	65	12	12	395	25	3	6	22	89	52	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	65	12	12	395	25	3	6	22	89	52	14

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	420	xxxx	xxxxxx	77	xxxx	xxxxxx	542	561	210	348	567	39
Potent Cap.:	1150	xxxx	xxxxxx	1535	xxxx	xxxxxx	428	440	802	588	436	1031
Move Cap.:	1150	xxxx	xxxxxx	1535	xxxx	xxxxxx	374	426	802	552	423	1031
Volume/Cap:	0.02	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.01	0.03	0.16	0.12	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.6	xxxx	xxxxxx
Control Del:	8.2	xxxx	xxxxxx	7.4	xxxx	xxxxxx	14.7	xxxx	xxxxxx	12.8	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	B	*	*	B	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	674	xxxx	xxxx	483
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	xxxx	0.5
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10.6	xxxxxx	xxxx	13.6
Shared LOS:	*	*	*	*	*	*	*	*	B	*	*	B
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.0	xxxxxx	xxxxxx	13.1	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	B	B	*	*

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

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.7      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      68  77  41  35  353  55  10  47  56  92  128  16
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  68  77  41  35  353  55  10  47  56  92  128  16
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  68  77  41  35  353  55  10  47  56  92  128  16
Reduct Vol:   0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:  68  77  41  35  353  55  10  47  56  92  128  16
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  68  77  41  35  353  55  10  47  56  92  128  16
-----|-----|-----|-----|
PCE Module:
AutoPCE:      68  77  41  35  353  55  10  47  56  92  128  16
TruckPCE:      0   0   0   0   0   0   0   0   0   0   0   0
ComboPCE:      0   0   0   0   0   0   0   0   0   0   0   0
BicyclePCE:    0   0   0   0   0   0   0   0   0   0   0   0
AdjVolume:    68  77  41  35  353  55  10  47  56  92  128  16
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      92      288      480      155
MaxVolume:      2358      2217      941      1116
PedVolume:        0        0        0        0
AdjMaxVol:      2358      2217      941      1116
ApproachVol:      186      443      113      236
ApproachV/C:      0.08      0.20      0.12      0.21
ApproachDel:      1.7      2.0      4.3      4.1
ApproachLOS:      A      A      A      A
Queue:          0.3      0.7      0.4      0.8

```


IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[10.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	19	37	18	13	55	13	7	31	13	35	81	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	37	18	13	55	13	7	31	13	35	81	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	37	18	13	55	13	7	31	13	35	81	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	37	18	13	55	13	7	31	13	35	81	18

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	246	221	38	239	218	90	99	xxxx	xxxxxx	44	xxxx	xxxxxx
Potent Cap.:	712	681	1040	719	684	973	1507	xxxx	xxxxxx	1577	xxxx	xxxxxx
Move Cap.:	645	663	1040	663	665	973	1507	xxxx	xxxxxx	1577	xxxx	xxxxxx
Volume/Cap:	0.03	0.06	0.02	0.02	0.08	0.01	0.00	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	721	xxxxxx	xxxx	700	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.6	xxxxxx	xxxxxx	10.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.6			10.8			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[13.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	36	20	27	25	64	35	6	83	23	49	244	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	20	27	25	64	35	6	83	23	49	244	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	20	27	25	64	35	6	83	23	49	244	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	36	20	27	25	64	35	6	83	23	49	244	15

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	506	464	95	480	468	252	259	xxxx	xxxxx	106	xxxx	xxxxx
Potent Cap.:	480	499	968	500	496	792	1317	xxxx	xxxxx	1498	xxxx	xxxxx
Move Cap.:	401	480	968	457	478	792	1317	xxxx	xxxxx	1498	xxxx	xxxxx
Volume/Cap:	0.09	0.04	0.03	0.05	0.13	0.04	0.00	xxxx	xxxxx	0.03	xxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	521	xxxxx	xxxx	533	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.2	xxxxx	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	13.2			13.8			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.2 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	29	23	21	41	142	54	11	103	41	65	227	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	23	21	41	142	54	11	103	41	65	227	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	23	21	41	142	54	11	103	41	65	227	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	23	21	41	142	54	11	103	41	65	227	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	23	21	41	142	54	11	103	41	65	227	19

PCE Module:

AutoPCE:	29	23	21	41	142	54	11	103	41	65	227	19
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	29	23	21	41	142	54	11	103	41	65	227	19

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	155	321	248	63
MaxVolume:	1116	1027	1066	1166
PedVolume:	0	0	0	0
AdjMaxVol:	1116	1027	1066	1166
ApproachVol:	73	237	155	311
ApproachV/C:	0.07	0.23	0.15	0.27
ApproachDel:	3.5	4.6	4.0	4.2
ApproachLOS:	A	A	A	A
Queue:	0.2	0.9	0.5	1.1

IUSD K-8 School
Year 2017 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.499

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 24 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	124	0	134	0	0	0	0	1525	96	121	1185	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	0	134	0	0	0	0	1525	96	121	1185	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	124	0	134	0	0	0	0	1525	96	121	1185	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	0	134	0	0	0	0	1525	96	121	1185	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	124	0	134	0	0	0	0	1525	96	121	1185	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.00	0.08	0.00	0.00	0.00	0.00	0.30	0.06	0.07	0.35	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
 Year 2017 No Project
 2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 6.6 Worst Case Level Of Service: B[12.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	10	28	13	25	143	18	10	44	28	66	75	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	28	13	25	143	18	10	44	28	66	75	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	28	13	25	143	18	10	44	28	66	75	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	28	13	25	143	18	10	44	28	66	75	24

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	161	xxxx	xxxxxx	41	xxxx	xxxxxx	306	263	152	293	266	35
Potent Cap.:	1430	xxxx	xxxxxx	1581	xxxx	xxxxxx	650	646	900	664	643	1044
Move Cap.:	1430	xxxx	xxxxxx	1581	xxxx	xxxxxx	567	631	900	598	629	1044
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.07	0.03	0.11	0.12	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	692	xxxxxx	xxxx	653	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.0	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.9	xxxxxx	xxxxxx	12.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.9				12.4	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
203	3197	46	604	2796	1012	1433	267	266	239	1461	547
7	110	2	79	366	241	59	11	5	10	61	110
0.03	0.03	0.03	0.13	0.16	0.16	0.04	0.03	0.03	0.04	0.09	0.09
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.16		V/C	0.04		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.16		RTOG	0.08		RTOG	0.09	
RTOR	0.10		RTOR	0.04		RTOR	0.03		RTOR	0.16	
RTC	0.14		RTC	0.19		RTC	0.11		RTC	0.20	
Addl ICU	-0.10		Addl ICU	-0.03		Addl ICU	-0.08		Addl ICU	-0.12	
0.00			0.00			0.00			0.00		
Initial ICU											
0.320											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	1	2	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	1700	3400	3400	5100	1700	3400	3400	1700
230	89	38	92	383	559	89	1560	316	64	1425	18
0.07	0.03	0.02	0.05	0.23	0.16	0.03	0.31	0.19	0.02	0.42	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.07		V/C	0.23		V/C	0.03		V/C	0.42	
Right Turn Capacity Adjustment											
RTOG	0.24		RTOG	0.23		RTOG	0.43		RTOG	0.42	
RTOR	0.14		RTOR	0.03		RTOR	0.07		RTOR	0.27	
RTC	0.34		RTC	0.24		RTC	0.48		RTC	0.62	
Addl ICU	-0.32		Addl ICU	-0.08		Addl ICU	-0.29		Addl ICU	-0.61	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.738
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.79

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1587	113	1700	1700	1700	3400	3320	80	0	3184	216
25	14	1	29	5	587	281	208	5	0	383	26
0.01	0.01	0.01	0.02	0.00	0.35	0.08	0.06	0.06	0.00	0.12	0.12
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.01		V/C	0.02		V/C	0.08		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.01		RTOG	0.20		RTOG	0.12	
RTOR	0.14		RTOR	0.08		RTOR	0.02		RTOR	0.02	
RTC	0.11		RTC	0.07		RTC	0.22		RTC	0.13	
Addl ICU	-0.11		Addl ICU	0.27		Addl ICU	-0.16		Addl ICU	-0.01	
0.00			0.27			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.229
											Right Turn Adjustment
											0.27
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.55

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2870	530	1700	3198	202	1700	364	1336	1700	1339	361
26	65	12	12	395	25	3	6	22	89	52	14
0.02	0.02	0.02	0.01	0.12	0.12	0.00	0.02	0.02	0.05	0.04	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.12		V/C	0.02		V/C	0.05	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.12		RTOG	0.02		RTOG	0.07	
RTOR	0.05		RTOR	0.03		RTOR	0.02		RTOR	0.12	
RTC	0.17		RTC	0.15		RTC	0.03		RTC	0.15	
Addl ICU	-0.15		Addl ICU	-0.02		Addl ICU	-0.01		Addl ICU	-0.12	
0.00			0.00			0.00			0.00		
Initial ICU											
0.208											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.26											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1594	1806	886	307	3093	344	298	1402	462	711	989	94
68	77	41	35	353	55	10	47	56	92	128	16
0.04	0.04	0.04	0.11	0.12	0.12	0.03	0.06	0.06	0.13	0.13	0.13
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.12		V/C	0.06		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.12		RTOG	0.06		RTOG	0.15	
RTOR	0.13		RTOR	0.05		RTOR	0.04		RTOR	0.12	
RTC	0.14		RTC	0.16		RTC	0.09		RTC	0.24	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.03		Addl ICU	-0.11	
0.00			0.00			0.00			0.00		
Initial ICU											
0.346											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.40											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
436	850	414	273	1154	273	233	1033	433	444	1028	228
19	37	18	13	55	13	7	31	13	35	81	18
0.04	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.03	0.08	0.08	0.08
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.05		V/C	0.03		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.05		RTOG	0.03		RTOG	0.08	
RTOR	0.08		RTOR	0.03		RTOR	0.04		RTOR	0.05	
RTC	0.10		RTC	0.07		RTC	0.06		RTC	0.11	
Addl ICU	-0.06		Addl ICU	-0.02		Addl ICU	-0.03		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.200
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.25

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
737	410	553	343	877	480	91	1260	349	270	1347	83
36	20	27	25	64	35	6	83	23	49	244	15
0.05	0.05	0.05	0.07	0.07	0.07	0.07	0.07	0.07	0.18	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.07		V/C	0.07		V/C	0.18	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.07		RTOG	0.07		RTOG	0.18	
RTOR	0.18		RTOR	0.07		RTOR	0.05		RTOR	0.07	
RTC	0.18		RTC	0.12		RTC	0.10		RTC	0.24	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.04		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Initial ICU											
0.369											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.42											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
675	536	489	294	1019	387	121	1130	450	355	1241	104
29	23	21	41	142	54	11	103	41	65	227	19
0.04	0.04	0.04	0.14	0.14	0.14	0.09	0.09	0.09	0.18	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.14		V/C	0.09		V/C	0.18	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.14		RTOG	0.09		RTOG	0.18	
RTOR	0.18		RTOR	0.09		RTOR	0.04		RTOR	0.14	
RTC	0.18		RTC	0.21		RTC	0.12		RTC	0.29	
Addl ICU	-0.14		Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.10	
0.00			0.00			0.00			0.00		
									Initial ICU		0.456
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
TOTAL CAPACITY UTILIZATION									0.51		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	3400	0
124	0	124	0	0	0	0	282	89	109	344	0
0.07	0.00	0.07	0.00	0.00	0.00	0.00	0.06	0.05	0.06	0.10	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.07		V/C	0.00		V/C	0.06		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	-0.07		RTOG	0.06		RTOG	0.12	
RTOR	0.06		RTOR	0.02		RTOR	0.07		RTOR	0.07	
RTC	0.12		RTC	-0.06		RTC	0.11		RTC	0.17	
Addl ICU	-0.05		Addl ICU	0.06		Addl ICU	-0.06		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.192											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.24											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
333	933	433	228	1307	165	207	912	580	680	773	247
10	28	13	25	143	18	10	44	28	66	75	24
0.03	0.03	0.03	0.11	0.11	0.11	0.05	0.05	0.05	0.10	0.10	0.10
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.05		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.11		RTOG	0.05		RTOG	0.10	
RTOR	0.10		RTOR	0.05		RTOR	0.03		RTOR	0.11	
RTC	0.10		RTC	0.15		RTC	0.07		RTC	0.18	
Addl ICU	-0.07		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Initial ICU											
0.285											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.33

INTERSECTION ANALYSIS WORKSHEETS

YEAR 2017 – NO PROJECT

2012 MODIFIED PROJECT OPTION 1

AM PEAK HOUR

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.4	0.256	A	2.4	0.256	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.643	B	xxxxx	0.643	+ 0.000 V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.719	C	xxxxx	0.719	+ 0.000 V/C
#603 "O" St & "LN" St	B	15.0	0.300	B	15.0	0.300	+ 0.000 D/V
#605 "O" St & "LQ" St	A	2.9	0.313	A	2.9	0.313	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.9	0.041	B	10.9	0.041	+ 0.000 D/V
#615 "C" St & "LQ" St	B	13.5	0.090	B	13.5	0.090	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.1	0.286	A	4.1	0.286	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.491	A	xxxxx	0.491	+ 0.000 V/C
#629 "LY" St & "LN" St	B	12.0	0.162	B	12.0	0.162	+ 0.000 D/V

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#603 "O" St & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	16		87		28	8		441		6	5		15		72	146		19		11
ApproachDel:	xxxxxx				xxxxxx				11.3				15.0							

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=854]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=176]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=854]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	16		87		28	8		441		6	5		15		72	146		19		11
Major Street Volume:	586																			
Minor Approach Volume:	176																			
Minor Approach Volume Threshold:	604																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	15		25		22	8		18		5	6		53		13	
ApproachDel:	10.5				10.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=62]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=340]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=340]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	15		25	22	8		18	5	6		53	13	41		113	21			
Major Street Volume:					247														
Minor Approach Volume:					62														
Minor Approach Volume Threshold:					592														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	28		15		18	24		41		39	10		105		20	35
ApproachDel:	13.3				13.5				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=61]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=639]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=104]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=639]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0
FinalVolume:	28		15	18	24		41	39	10		105	20	35		289	15	
Major Street Volume:	474																
Minor Approach Volume:	104																
Minor Approach Volume Threshold:	542																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	11		10		8	20		100		25	8		66		39	
ApproachDel:	xxxxxx				xxxxxx				10.6				12.0			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=113]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=460]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=173]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=460]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0
FinalVolume:	11		10	8	20		100	25	8		66	39	50		111	12

Major Street Volume: 174
Minor Approach Volume: 173
Minor Approach Volume Threshold: 686

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      15 108      2 30 365 209      59 10 14      12 64 48
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 15 108      2 30 365 209      59 10 14      12 64 48
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 15 108      2 30 365 209      59 10 14      12 64 48
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 15 108      2 30 365 209      59 10 14      12 64 48
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 15 108      2 30 365 209      59 10 14      12 64 48
-----|-----|-----|-----|
PCE Module:
AutoPCE:      15 108      2 30 365 209      59 10 14      12 64 48
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      15 108      2 30 365 209      59 10 14      12 64 48
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      99      91      407      182
MaxVolume:      2353      2358      980      1102
PedVolume:      0      0      0      0
AdjMaxVol:      2353      2358      980      1102
ApproachVol:      125      604      83      124
ApproachV/C:      0.05      0.26      0.08      0.11
ApproachDel:      1.6      2.1      4.0      3.7
ApproachLOS:      A      A      A      A
Queue:      0.2      1.0      0.3      0.4

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Protected			Protected			Protected			Protected				
Rights:	WideBypass			Ignore			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	1

Volume Module:

Base Vol:	166	89	37	111	373	505	83	1431	232	67	1394	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	89	37	111	373	505	83	1431	232	67	1394	24
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	166	89	37	111	373	0	83	1431	232	67	1394	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	89	37	111	373	0	83	1431	232	67	1394	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	166	89	37	111	373	0	83	1431	232	67	1394	24

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2402	998	1700	3400	1700	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.04	0.07	0.11	0.00	0.02	0.28	0.14	0.02	0.41	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.719
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	70	50	2	33	69	814	405	192	49	5	466	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	50	2	33	69	814	405	192	49	5	466	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	70	50	2	33	69	814	405	192	0	5	466	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	50	2	33	69	814	405	192	0	5	466	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	70	50	2	33	69	814	405	192	0	5	466	39
OvlAdjVol:	612											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.96	0.04	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.85	0.15
Final Sat.:	1700	1635	65	1700	1700	1700	3400	3400	0	1700	3137	263

Capacity Analysis Module:

Vol/Sat:	0.04	0.03	0.03	0.02	0.04	0.48	0.12	0.06	0.00	0.00	0.15	0.15	
OvlAdjV/S:	0.36												
Crit Moves:	****						****	****					****

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #603 "O" St & "LN" St

Average Delay (sec/veh): 4.5 Worst Case Level Of Service: B[15.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	16	87	28	8	441	6	5	15	72	146	19	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	87	28	8	441	6	5	15	72	146	19	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	87	28	8	441	6	5	15	72	146	19	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	87	28	8	441	6	5	15	72	146	19	11

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	447	xxxx	xxxxxx	115	xxxx	xxxxxx	545	607	224	377	596	58
Potent Cap.:	1124	xxxx	xxxxxx	1487	xxxx	xxxxxx	426	414	786	560	420	1003
Move Cap.:	1124	xxxx	xxxxxx	1487	xxxx	xxxxxx	400	405	786	487	411	1003
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.04	0.09	0.30	0.05	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	1.2	xxxx	xxxxxx
Control Del:	8.2	xxxx	xxxxxx	7.4	xxxx	xxxxxx	14.1	xxxx	xxxxxx	15.5	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	B	*	*	C	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	677	xxxx	xxxx	525
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.4	xxxxxx	xxxx	0.2
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	11.1	xxxxxx	xxxx	12.3
Shared LOS:	*	*	*	*	*	*	*	*	B	*	*	B
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.3	xxxxxx	xxxxxx	15.0	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	B	B	B	B	B

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

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.9      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      39 102 55 54 595 41 5 25 31 167 95 27
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 39 102 55 54 595 41 5 25 31 167 95 27
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 39 102 55 54 595 41 5 25 31 167 95 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 39 102 55 54 595 41 5 25 31 167 95 27
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 39 102 55 54 595 41 5 25 31 167 95 27
-----|-----|-----|-----|
PCE Module:
AutoPCE: 39 102 55 54 595 41 5 25 31 167 95 27
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 39 102 55 54 595 41 5 25 31 167 95 27
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume: 84 301 816 146
MaxVolume: 2364 2207 759 1121
PedVolume: 0 0 0 0
AdjMaxVol: 2364 2207 759 1121
ApproachVol: 196 690 61 289
ApproachV/C: 0.08 0.31 0.08 0.26
ApproachDel: 1.7 2.4 5.2 4.3
ApproachLOS: A A A A
Queue: 0.3 1.4 0.3 1.0

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[10.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	15	25	22	8	18	5	6	53	13	41	113	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	25	22	8	18	5	6	53	13	41	113	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	25	22	8	18	5	6	53	13	41	113	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	25	22	8	18	5	6	53	13	41	113	21

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	289	288	60	301	284	124	134	xxxx	xxxxx	66	xxxx	xxxxx
Potent Cap.:	668	626	1012	656	629	933	1463	xxxx	xxxxx	1549	xxxx	xxxxx
Move Cap.:	634	606	1012	607	609	933	1463	xxxx	xxxxx	1549	xxxx	xxxxx
Volume/Cap:	0.02	0.04	0.02	0.01	0.03	0.01	0.00	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	716	xxxxx	xxxx	645	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.5	xxxxx	xxxxx	10.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.5			10.9			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[13.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	15	18	24	41	39	10	105	20	35	289	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	15	18	24	41	39	10	105	20	35	289	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	15	18	24	41	39	10	105	20	35	289	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	28	15	18	24	41	39	10	105	20	35	289	15

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	542	509	115	518	512	297	304	xxxx	xxxxx	125	xxxx	xxxxx
Potent Cap.:	455	470	943	471	469	748	1268	xxxx	xxxxx	1474	xxxx	xxxxx
Move Cap.:	392	455	943	440	454	748	1268	xxxx	xxxxx	1474	xxxx	xxxxx
Volume/Cap:	0.07	0.03	0.02	0.05	0.09	0.05	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	494	xxxxx	xxxx	528	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.3	xxxxx	xxxxx	13.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	13.3			13.5			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.1 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Yield Sign Yield Sign Yield Sign Yield Sign
Lanes: 1 1 1 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 10 3 7 36 95 55 6 123 37 54 275 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 10 3 7 36 95 55 6 123 37 54 275 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 10 3 7 36 95 55 6 123 37 54 275 11
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 10 3 7 36 95 55 6 123 37 54 275 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 10 3 7 36 95 55 6 123 37 54 275 11
-----|-----|-----|-----|
PCE Module:
AutoPCE: 10 3 7 36 95 55 6 123 37 54 275 11
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 10 3 7 36 95 55 6 123 37 54 275 11
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume: 165 339 185 19
MaxVolume: 1111 1017 1100 1190
PedVolume: 0 0 0 0
AdjMaxVol: 1111 1017 1100 1190
ApproachVol: 20 186 166 340
ApproachV/C: 0.02 0.18 0.15 0.29
ApproachDel: 3.3 4.3 3.9 4.2
ApproachLOS: A A A A
Queue: 0.1 0.7 0.5 1.2

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.491
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	80	0	86	0	0	0	0	1491	63	81	1341	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	0	86	0	0	0	0	1491	63	81	1341	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	80	0	86	0	0	0	0	1491	63	81	1341	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	0	86	0	0	0	0	1491	63	81	1341	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	0	86	0	0	0	0	1491	63	81	1341	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.29	0.04	0.05	0.39	0.00
Crit Moves:	****						****				****	

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: B[12.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	11	10	8	20	100	25	8	66	39	50	111	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	10	8	20	100	25	8	66	39	50	111	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	10	8	20	100	25	8	66	39	50	111	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	10	8	20	100	25	8	66	39	50	111	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	125	xxxx	xxxxxx	18	xxxx	xxxxxx	250	193	113	241	201	14
Potent Cap.:	1474	xxxx	xxxxxx	1612	xxxx	xxxxxx	708	706	946	717	699	1072
Move Cap.:	1474	xxxx	xxxxxx	1612	xxxx	xxxxxx	604	692	946	628	685	1072
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.10	0.04	0.08	0.16	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	754	xxxxxx	xxxx	684	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	1.0	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.6	xxxxxx	xxxxxx	12.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.6				12.0	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
415	2985	46	258	3142	928	1454	246	496	268	1432	364
15	108	2	30	365	209	59	10	14	12	64	48
0.04	0.04	0.04	0.12	0.14	0.14	0.04	0.03	0.03	0.04	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.14		V/C	0.04		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.14		RTOG	0.06		RTOG	0.06	
RTOR	0.07		RTOR	0.04		RTOR	0.04		RTOR	0.14	
RTC	0.11		RTC	0.17		RTC	0.09		RTC	0.17	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.11	
0.00			0.00			0.00			0.00		
Initial ICU											
0.280											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.33											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	3400	1700
166	89	37	111	373	505	83	1431	232	67	1394	24
0.05	0.03	0.02	0.07	0.11	0.00	0.02	0.28	0.14	0.02	0.41	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.11		V/C	0.02		V/C	0.41	
Right Turn Capacity Adjustment											
RTOG	0.09		RTOG	0.11		RTOG	0.41		RTOG	0.41	
RTOR	0.15		RTOR	0.02		RTOR	0.05		RTOR	0.13	
RTC	0.21		RTC	0.13		RTC	0.45		RTC	0.51	
Addl ICU	-0.19		Addl ICU	-0.13		Addl ICU	-0.31		Addl ICU	-0.50	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.593											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.64											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1635	65	1700	1700	1700	3400	2709	691	1700	3137	263
70	50	2	33	69	814	405	192	49	5	466	39
0.04	0.03	0.03	0.02	0.04	0.48	0.12	0.07	0.07	0.00	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.04		V/C	0.12		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.04		RTOG	0.26		RTOG	0.15	
RTOR	0.20		RTOR	0.12		RTOR	0.04		RTOR	0.05	
RTC	0.21		RTC	0.13		RTC	0.30		RTC	0.19	
Addl ICU	-0.18		Addl ICU	0.35		Addl ICU	-0.22		Addl ICU	-0.04	
0.00			0.35			0.00			0.00		
										Initial ICU	
										0.349	
										Right Turn Adjustment	
										0.35	
										Clearance Interval	
										0.05	
										TOTAL CAPACITY UTILIZATION	
										0.75	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2572	828	1700	3354	46	1700	293	1407	1700	1077	623
16	87	28	8	441	6	5	15	72	146	19	11
0.01	0.03	0.03	0.00	0.13	0.13	0.00	0.05	0.05	0.09	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.13		V/C	0.05		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.14		RTOG	0.13		RTOG	0.05		RTOG	0.13	
RTOR	0.09		RTOR	0.12		RTOR	0.01		RTOR	0.11	
RTC	0.20		RTC	0.22		RTC	0.06		RTC	0.21	
Addl ICU	-0.17		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.20	
0.00			0.00			0.00			0.00		
									Initial ICU		0.278
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
									TOTAL CAPACITY UTILIZATION		0.33

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
940	2460	893	283	3117	164	283	1417	471	1084	616	188
39	102	55	54	595	41	5	25	31	167	95	27
0.04	0.05	0.05	0.19	0.19	0.19	0.02	0.03	0.03	0.15	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.19		V/C	0.03		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.19		RTOG	0.03		RTOG	0.17	
RTOR	0.15		RTOR	0.03		RTOR	0.04		RTOR	0.19	
RTC	0.16		RTC	0.22		RTC	0.06		RTC	0.31	
Addl ICU	-0.11		Addl ICU	-0.02		Addl ICU	-0.03		Addl ICU	-0.16	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.419											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.47											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
411	685	603	439	987	274	142	1251	307	398	1098	204
15	25	22	8	18	5	6	53	13	41	113	21
0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04	0.10	0.10	0.10
Critical Movements											
Direction		NBL	Direction		SBT	Direction		EBL	Direction		WBT
V/C		0.04	V/C		0.02	V/C		0.04	V/C		0.10
Right Turn Capacity Adjustment											
RTOG		0.04	RTOG		0.02	RTOG		0.04	RTOG		0.10
RTOR		0.10	RTOR		0.04	RTOR		0.04	RTOR		0.02
RTC		0.11	RTC		0.05	RTC		0.07	RTC		0.12
Addl ICU		-0.08	Addl ICU		-0.03	Addl ICU		-0.03	Addl ICU		-0.01
0.00			0.00			0.00			0.00		
Initial ICU											
0.200											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.25

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
780	418	502	392	670	638	126	1322	252	176	1449	75
28	15	18	24	41	39	10	105	20	35	289	15
0.04	0.04	0.04	0.06	0.06	0.06	0.08	0.08	0.08	0.20	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.06		V/C	0.08		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.06		RTOG	0.08		RTOG	0.20	
RTOR	0.20		RTOR	0.08		RTOR	0.04		RTOR	0.06	
RTC	0.19		RTC	0.12		RTC	0.11		RTC	0.25	
Addl ICU	-0.15		Addl ICU	-0.06		Addl ICU	-0.03		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.376											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.43											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
850	255	595	329	868	503	61	1260	379	270	1375	55
10	3	7	36	95	55	6	123	37	54	275	11
0.01	0.01	0.01	0.11	0.11	0.11	0.10	0.10	0.10	0.20	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.01		V/C	0.11		V/C	0.10		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.11		RTOG	0.10		RTOG	0.20	
RTOR	0.20		RTOR	0.10		RTOR	0.01		RTOR	0.11	
RTC	0.16		RTC	0.18		RTC	0.11		RTC	0.28	
Addl ICU	-0.15		Addl ICU	-0.07		Addl ICU	-0.01		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.419											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.47											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	24	5076	1700	1700	3391	9
70	3	74	0	0	0	1	214	43	80	383	1
0.04	0.00	0.04	0.00	0.00	0.00	0.04	0.04	0.03	0.05	0.11	0.11
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.11		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.13		RTC	-0.01		RTC	0.14		RTC	0.14	
Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.11		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.196
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.25

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
645	586	469	234	1172	293	120	993	587	491	1091	118
11	10	8	20	100	25	8	66	39	50	111	12
0.02	0.02	0.02	0.09	0.09	0.09	0.07	0.07	0.07	0.10	0.10	0.10
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.09		V/C	0.07		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.09		RTOG	0.07		RTOG	0.10	
RTOR	0.10		RTOR	0.07		RTOR	0.02		RTOR	0.09	
RTC	0.09		RTC	0.14		RTC	0.08		RTC	0.17	
Addl ICU	-0.08		Addl ICU	-0.05		Addl ICU	-0.01		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.271
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.32

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2017 – NO PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

 IUSD K-8 School
 Year 2017 No Project
 2012 Modified Project Option 2

Impact Analysis Report
 Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.4	0.247	A	2.4	0.247	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.638	B	xxxxx	0.638	+ 0.000 V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.722	C	xxxxx	0.722	+ 0.000 V/C
#603 "O" St & "LN" St	B	14.1	0.288	B	14.1	0.288	+ 0.000 D/V
#605 "O" St & "LQ" St	A	2.9	0.304	A	2.9	0.304	+ 0.000 V/C
#613 "C" St & "LN" St	B	11.6	0.070	B	11.6	0.070	+ 0.000 D/V
#615 "C" St & "LQ" St	C	15.7	0.201	C	15.7	0.201	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.1	0.269	A	4.1	0.269	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.488	A	xxxxx	0.488	+ 0.000 V/C
#629 "LY" St & "LN" St	B	12.4	0.184	B	12.4	0.184	+ 0.000 D/V

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report			
	Base Met		Future Met	
	[Del / Vol]		[Del / Vol]	
#603 "O" St & "LN" St	No	/ No	???	/ ???
#613 "C" St & "LN" St	No	/ No	???	/ ???
#615 "C" St & "LQ" St	No	/ No	???	/ ???
#629 "LY" St & "LN" St	No	/ No	???	/ ???

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0
FinalVolume:	14	74	24	11	385	6	6	16	70	151	22	12
ApproachDel:	xxxxxx			xxxxxx			10.9			14.1		

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=791]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=185]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=791]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
Final Volume:	14		74		24	11		385		6	6		16		70	151		22		12
Major Street Volume:	514																			
Minor Approach Volume:	185																			
Minor Approach Volume Threshold:	660																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	18		32		23	12		40		9	7		47		18	
ApproachDel:	11.1				11.6				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=73]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=402]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=61]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=402]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	18		32	23	12		40	9		7		47	18		56		117	23	
Major Street Volume:					268														
Minor Approach Volume:					73														
Minor Approach Volume Threshold:					571														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	35		25		33	31		91		33	7		80		26	69
ApproachDel:	14.0				15.7				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=93]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=681]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=155]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=681]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	35		25	33	31		91	33	7		80	26	69		231	20
Major Street Volume:	433															
Minor Approach Volume:	155															
Minor Approach Volume Threshold:	573															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	11		12		7	22		111		32	12		64		37	
ApproachDel:	xxxxxx				xxxxxx				10.9				12.4			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=113]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=493]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=185]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=493]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0
FinalVolume:	11		12	7	22	111		32	12	64		37	47	122		16
Major Street Volume:	195															
Minor Approach Volume:	185															
Minor Approach Volume Threshold:	655															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      12  100      3  53  318  211      57  16  10      11  65  59
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  12  100      3  53  318  211      57  16  10      11  65  59
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  12  100      3  53  318  211      57  16  10      11  65  59
Reduct Vol:   0   0      0   0   0      0   0   0      0   0   0
Reduced Vol:  12  100      3  53  318  211      57  16  10      11  65  59
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  12  100      3  53  318  211      57  16  10      11  65  59
-----|-----|-----|-----|
PCE Module:
AutoPCE:      12  100      3  53  318  211      57  16  10      11  65  59
TruckPCE:      0   0      0   0   0      0   0   0      0   0   0
ComboPCE:      0   0      0   0   0      0   0   0      0   0   0
BicyclePCE:    0   0      0   0   0      0   0   0      0   0   0
AdjVolume:    12  100      3  53  318  211      57  16  10      11  65  59
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      126      88      382      169
MaxVolume:      2333      2361      994      1109
PedVolume:        0        0        0        0
AdjMaxVol:      2333      2361      994      1109
ApproachVol:      115      582      83      135
ApproachV/C:      0.05      0.25      0.08      0.12
ApproachDel:      1.6      2.0      4.0      3.7
ApproachLOS:      A      A      A      A
Queue:          0.2      1.0      0.3      0.4

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.638
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	166	89	37	115	366	509	82	1431	221	65	1386	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	89	37	115	366	509	82	1431	221	65	1386	25
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	166	89	37	115	366	0	82	1431	221	65	1386	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	89	37	115	366	0	82	1431	221	65	1386	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	166	89	37	115	366	0	82	1431	221	65	1386	25

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2402	998	1700	3400	1700	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.04	0.07	0.11	0.00	0.02	0.28	0.13	0.02	0.41	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	77	41	4	44	70	823	313	292	48	5	458	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	41	4	44	70	823	313	292	48	5	458	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	77	41	4	44	70	823	313	292	0	5	458	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	41	4	44	70	823	313	292	0	5	458	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	77	41	4	44	70	823	313	292	0	5	458	27
OvlAdjVol:	667											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.91	0.09	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.89	0.11
Final Sat.:	1700	1549	151	1700	1700	1700	3400	3400	0	1700	3211	189

Capacity Analysis Module:

Vol/Sat:	0.05	0.03	0.03	0.03	0.04	0.48	0.09	0.09	0.00	0.00	0.14	0.14	
OvlAdjV/S:	0.39												
Crit Moves:	****						****	****					****

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #603 "O" St & "LN" St
*****
Average Delay (sec/veh):      4.8      Worst Case Level Of Service: B[ 14.1]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 1 0      1 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      14 74 24      11 385 6      6 16 70      151 22 12
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 74 24      11 385 6      6 16 70      151 22 12
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 74 24      11 385 6      6 16 70      151 22 12
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume: 14 74 24      11 385 6      6 16 70      151 22 12
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxxx      4.1 xxxxx xxxxxx      7.5 6.5 6.9      7.5 6.5 6.9
FollowUpTim: 2.2 xxxxx xxxxxx      2.2 xxxxx xxxxxx      3.5 4.0 3.3      3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 391 xxxxx xxxxxx      98 xxxxx xxxxxx      486 536 196      337 527 49
Potent Cap.: 1179 xxxxx xxxxxx      1508 xxxxx xxxxxx      469 454 819      598 459 1016
Move Cap.: 1179 xxxxx xxxxxx      1508 xxxxx xxxxxx      440 445 819      524 450 1016
Volume/Cap: 0.01 xxxxx xxxxx      0.01 xxxxx xxxxx      0.01 0.04 0.09      0.29 0.05 0.01
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.0 xxxxx xxxxxx      0.0 xxxxx xxxxxx      0.0 xxxxx xxxxxx      1.2 xxxxx xxxxxx
Control Del: 8.1 xxxxx xxxxxx      7.4 xxxxx xxxxxx      13.3 xxxxx xxxxxx      14.6 xxxxx xxxxxx
LOS by Move: A * *      A * *      B * *      B * *
Movement: LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx      xxxxx xxxxx xxxxxx      xxxxx xxxxx 708      xxxxx xxxxx 560
SharedQueue: xxxxxx xxxxx xxxxxx      xxxxxx xxxxx xxxxxx      xxxxxx xxxxx 0.4      xxxxxx xxxxx 0.2
Shrd ConDel: xxxxxx xxxxx xxxxxx      xxxxxx xxxxx xxxxxx      xxxxxx xxxxx 10.8      xxxxxx xxxxx 11.8
Shared LOS: * * *      * * *      * * *      B * * B
ApproachDel: xxxxxx      xxxxxx      10.9      14.1
ApproachLOS: *      *      B      B
*****
Note: Queue reported is the number of cars per lane.
*****

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.9      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      42  95  49  41  591  33  5  23  35  188  100  24
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  42  95  49  41  591  33  5  23  35  188  100  24
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  42  95  49  41  591  33  5  23  35  188  100  24
Reduct Vol:  0  0  0  0  0  0  0  0  0  0  0  0
Reduced Vol:  42  95  49  41  591  33  5  23  35  188  100  24
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  42  95  49  41  591  33  5  23  35  188  100  24
-----|-----|-----|-----|
PCE Module:
AutoPCE:      42  95  49  41  591  33  5  23  35  188  100  24
TruckPCE:      0  0  0  0  0  0  0  0  0  0  0  0
ComboPCE:      0  0  0  0  0  0  0  0  0  0  0  0
BicyclePCE:    0  0  0  0  0  0  0  0  0  0  0  0
AdjVolume:    42  95  49  41  591  33  5  23  35  188  100  24
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      69      330      820      142
MaxVolume:      2374      2186      757      1123
PedVolume:      0      0      0      0
AdjMaxVol:      2374      2186      757      1123
ApproachVol:      186      665      63      312
ApproachV/C:      0.08      0.30      0.08      0.28
ApproachDel:      1.6      2.4      5.2      4.4
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      1.1

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[11.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	18	32	23	12	40	9	7	47	18	56	117	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	32	23	12	40	9	7	47	18	56	117	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	32	23	12	40	9	7	47	18	56	117	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	18	32	23	12	40	9	7	47	18	56	117	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	335	322	56	338	320	129	140	xxxx	xxxxxx	65	xxxx	xxxxxx
Potent Cap.:	622	599	1016	620	601	927	1456	xxxx	xxxxxx	1550	xxxx	xxxxxx
Move Cap.:	565	573	1016	561	575	927	1456	xxxx	xxxxxx	1550	xxxx	xxxxxx
Volume/Cap:	0.03	0.06	0.02	0.02	0.07	0.01	0.00	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	662	xxxxxx	xxxx	606	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.4	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	11.1	xxxxxx	xxxxxx	11.6	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.1			11.6			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: C[15.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	35	25	33	31	91	33	7	80	26	69	231	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	25	33	31	91	33	7	80	26	69	231	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	25	33	31	91	33	7	80	26	69	231	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	35	25	33	31	91	33	7	80	26	69	231	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	548	496	93	515	499	241	251	xxxx	xxxxx	106	xxxx	xxxxx
Potent Cap.:	450	478	970	474	476	803	1326	xxxx	xxxxx	1498	xxxx	xxxxx
Move Cap.:	351	454	970	421	452	803	1326	xxxx	xxxxx	1498	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.03	0.07	0.20	0.04	0.01	xxxx	xxxxx	0.05	xxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	492	xxxxx	xxxx	490	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	14.0	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	C	*	*	*	*	*	*	*
ApproachDel:	14.0			15.7			xxxxxxx			xxxxxxx		
ApproachLOS:	B			C			*			*		

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

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.1      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      14      7      9      36 105      56      8 109      37      55 249      15
Growth Adj:      1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      14      7      9      36 105      56      8 109      37      55 249      15
User Adj:      1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:      14      7      9      36 105      56      8 109      37      55 249      15
Reduct Vol:      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      14      7      9      36 105      56      8 109      37      55 249      15
PCE Adj:      1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:      1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      14      7      9      36 105      56      8 109      37      55 249      15
-----|-----|-----|-----|
PCE Module:
AutoPCE:      14      7      9      36 105      56      8 109      37      55 249      15
TruckPCE:      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0
AdjVolume:      14      7      9      36 105      56      8 109      37      55 249      15
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      153      318      196      29
MaxVolume:      1117      1028      1094      1184
PedVolume:      0      0      0      0
AdjMaxVol:      1117      1028      1094      1184
ApproachVol:      30      197      154      319
ApproachV/C:      0.03      0.19      0.14      0.27
ApproachDel:      3.3      4.3      3.8      4.2
ApproachLOS:      A      A      A      A
Queue:      0.1      0.7      0.5      1.1

```


IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.488
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	78	0	87	0	0	0	0	1490	67	88	1333	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	0	87	0	0	0	0	1490	67	88	1333	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	0	87	0	0	0	0	1490	67	88	1333	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	0	87	0	0	0	0	1490	67	88	1333	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	0	87	0	0	0	0	1490	67	88	1333	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.29	0.04	0.05	0.39	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
Year 2017 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: B[12.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	11	12	7	22	111	32	12	64	37	47	122	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	12	7	22	111	32	12	64	37	47	122	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	12	7	22	111	32	12	64	37	47	122	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	12	7	22	111	32	12	64	37	47	122	16

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	143	xxxx	xxxxxx	19	xxxx	xxxxxx	278	212	127	259	225	16
Potent Cap.:	1452	xxxx	xxxxxx	1611	xxxx	xxxxxx	679	689	929	698	678	1070
Move Cap.:	1452	xxxx	xxxxxx	1611	xxxx	xxxxxx	565	674	929	612	664	1070
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.02	0.09	0.04	0.08	0.18	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	724	xxxxxx	xxxx	671	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.6	xxxxxx	xxxxxx	1.1	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.9	xxxxxx	xxxxxx	12.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.9				12.4	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
364	3036	74	486	2914	1017	1327	373	327	246	1454	404
12	100	3	53	318	211	57	16	10	11	65	59
0.03	0.03	0.03	0.11	0.13	0.13	0.04	0.04	0.04	0.04	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.13		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.13		RTOG	0.06		RTOG	0.07	
RTOR	0.07		RTOR	0.04		RTOR	0.03		RTOR	0.13	
RTC	0.11		RTC	0.17		RTC	0.09		RTC	0.17	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.10	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.277
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.33

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:		Year 2017 (2012 Modified Project Option 2) No Project							Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	3400	1700
166	89	37	115	366	509	82	1431	221	65	1386	25
0.05	0.03	0.02	0.07	0.11	0.00	0.02	0.28	0.13	0.02	0.41	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.11		V/C	0.02		V/C	0.41	
Right Turn Capacity Adjustment											
RTOG	0.09		RTOG	0.11		RTOG	0.41		RTOG	0.41	
RTOR	0.15		RTOR	0.02		RTOR	0.05		RTOR	0.13	
RTC	0.20		RTC	0.13		RTC	0.45		RTC	0.51	
Addl ICU	-0.18		Addl ICU	-0.13		Addl ICU	-0.32		Addl ICU	-0.49	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.588
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.64

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1549	151	1700	1700	1700	3400	2920	480	1700	3211	189
77	41	4	44	70	823	313	292	48	5	458	27
0.05	0.03	0.03	0.03	0.04	0.48	0.09	0.10	0.10	0.00	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.04		V/C	0.09		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.04		RTOG	0.23		RTOG	0.14	
RTOR	0.13		RTOR	0.09		RTOR	0.05		RTOR	0.06	
RTC	0.16		RTC	0.11		RTC	0.27		RTC	0.19	
Addl ICU	-0.14		Addl ICU	0.37		Addl ICU	-0.17		Addl ICU	-0.05	
0.00			0.37			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.321											
Right Turn Adjustment											
0.37											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.75											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2567	833	1700	3348	52	1700	316	1384	1700	1100	600
14	74	24	11	385	6	6	16	70	151	22	12
0.01	0.03	0.03	0.01	0.12	0.12	0.00	0.05	0.05	0.09	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.12		V/C	0.05		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.12		RTOG	0.12		RTOG	0.05		RTOG	0.14	
RTOR	0.09		RTOR	0.12		RTOR	0.01		RTOR	0.09	
RTC	0.18		RTC	0.20		RTC	0.06		RTC	0.21	
Addl ICU	-0.15		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.19	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.263											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.31											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1042	2358	868	221	3179	135	304	1396	513	1110	590	165
42	95	49	41	591	33	5	23	35	188	100	24
0.04	0.04	0.04	0.19	0.19	0.19	0.02	0.03	0.03	0.17	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.19		V/C	0.03		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.19		RTOG	0.03		RTOG	0.18	
RTOR	0.17		RTOR	0.04		RTOR	0.04		RTOR	0.18	
RTC	0.17		RTC	0.21		RTC	0.06		RTC	0.32	
Addl ICU	-0.13		Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	-0.16	
0.00			0.00			0.00			0.00		
Initial ICU											
0.428											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.48

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
419	745	536	334	1115	251	165	1110	425	486	1015	199
18	32	23	12	40	9	7	47	18	56	117	23
0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.04		V/C	0.04		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.04		RTOG	0.04		RTOG	0.12	
RTOR	0.12		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.13		RTC	0.07		RTC	0.07		RTC	0.14	
Addl ICU	-0.09		Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.236											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.29											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
640	457	603	340	998	362	105	1204	391	367	1227	106
35	25	33	31	91	33	7	80	26	69	231	20
0.05	0.05	0.05	0.09	0.09	0.09	0.07	0.07	0.07	0.19	0.19	0.19
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.09		V/C	0.07		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.09		RTOG	0.07		RTOG	0.19	
RTOR	0.19		RTOR	0.07		RTOR	0.05		RTOR	0.09	
RTC	0.20		RTC	0.14		RTC	0.11		RTC	0.26	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.04		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
793	397	510	311	906	483	88	1203	408	293	1327	80
14	7	9	36	105	56	8	109	37	55	249	15
0.02	0.02	0.02	0.12	0.12	0.12	0.09	0.09	0.09	0.19	0.19	0.19
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.12		V/C	0.09		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.12		RTOG	0.09		RTOG	0.19	
RTOR	0.19		RTOR	0.09		RTOR	0.02		RTOR	0.12	
RTC	0.16		RTC	0.18		RTC	0.10		RTC	0.27	
Addl ICU	-0.14		Addl ICU	-0.07		Addl ICU	-0.01		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.412
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.46

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	24	5076	1700	1700	3391	9
77	3	79	0	0	0	1	209	52	93	366	1
0.05	0.00	0.05	0.00	0.00	0.00	0.04	0.04	0.03	0.05	0.11	0.11
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	-0.05		RTOG	0.09		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.05		RTOR	0.05	
RTC	0.13		RTC	-0.01		RTC	0.13		RTC	0.14	
Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.10		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.24

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
623	680	397	227	1144	330	181	963	557	432	1121	147
11	12	7	22	111	32	12	64	37	47	122	16
0.02	0.02	0.02	0.10	0.10	0.10	0.07	0.07	0.07	0.11	0.11	0.11
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.10		V/C	0.07		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.10		RTOG	0.07		RTOG	0.11	
RTOR	0.11		RTOR	0.07		RTOR	0.02		RTOR	0.10	
RTC	0.10		RTC	0.15		RTC	0.08		RTC	0.18	
Addl ICU	-0.08		Addl ICU	-0.05		Addl ICU	-0.01		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.290											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.34											

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2017 – WITH PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000 D/V
# 2 "LM" St & Driveway 2	A	8.6	0.019	A	8.6	0.019	+ 0.000 D/V
# 3 "LM" St & Driveway 3	A	9.1	0.066	A	9.1	0.066	+ 0.000 D/V
# 4 Driveway 4 & "LN" St	A	7.8	0.140	A	7.8	0.140	+ 0.000 D/V
# 5 Driveway 5 & "LN" St	B	10.3	0.107	B	10.3	0.107	+ 0.000 D/V
#557 "O" St & "C" St	A	2.6	0.295	A	2.6	0.295	+ 0.000 V/C
#558 "O" St & Irvine Blvd	C	xxxxxx	0.799	C	xxxxxx	0.799	+ 0.000 V/C
#559 "O" St & Trabuco Rd	A	xxxxxx	0.542	A	xxxxxx	0.542	+ 0.000 V/C
#603 "O" St & "LN" St	B	13.5	0.199	B	13.5	0.199	+ 0.000 D/V
#605 "O" St & "LQ" St	A	2.7	0.217	A	2.7	0.217	+ 0.000 V/C
#613 "C" St & "LN" St	B	12.0	0.097	B	12.0	0.097	+ 0.000 D/V
#615 "C" St & "LQ" St	C	15.0	0.143	C	15.0	0.143	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.3	0.293	A	4.3	0.293	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.510	A	xxxxxx	0.510	+ 0.000 V/C
#629 "LY" St & "LN" St	B	13.1	0.170	B	13.1	0.170	+ 0.000 D/V

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#603 "O" St & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1
FinalVolume:	0	0		0		0	0		0		5	96		0		0	10		82	
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx				

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1
FinalVolume:	0		0		0	0		0		0	5		96		0	0		10		82
Major Street Volume:	193																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	852																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0
FinalVolume:	0		31		15	7		133		0	0		0		0	2		0		20
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				8.6							

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=22]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=208]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		31		15	7		133		0	0		0		0	2		0		20
Major Street Volume:	186																			
Minor Approach Volume:	22																			
Minor Approach Volume Threshold:	864																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		33		0	0		79		0	0		0		0	61		0		6
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.1							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=67]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=179]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		33		0	0		79		0	0		0		0	61
Major Street Volume:					112											
Minor Approach Volume:					67											
Minor Approach Volume Threshold:					1316											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

-----	-----				-----				-----				-----							
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----				-----				-----				-----							
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	0	42	82	206	67	0	0	0	0	0	
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							
-----	-----				-----				-----				-----							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		42		82	206		67		0
Major Street Volume:	397																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	603																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	67		0		47	0		0		0	0	51		0	113	
ApproachDel:	10.3				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=114]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=335]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
Final Volume:	67		0		47	0		0		0	0	51		0	113 57 0	
Major Street Volume:					221											
Minor Approach Volume:					114											
Minor Approach Volume Threshold:					767											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	26		65		12	24		395		25	3		6		22	105		52		24
ApproachDel:	xxxxxx				xxxxxx				11.1				13.5							

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=759]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=181]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=759]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	26		65		12	24		395		25	3		6		22	105		52		24
Major Street Volume:	547																			
Minor Approach Volume:	181																			
Minor Approach Volume Threshold:	634																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	0	
FinalVolume:	19		49		18	13		55		13	21		63		13	
ApproachDel:	11.9				12.0				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=86]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=455]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=455]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	19		49	18	13		55	13	21		63	13	35		138	18			
Major Street Volume:					288														
Minor Approach Volume:					86														
Minor Approach Volume Threshold:					551														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	38		25		27	41		66		35	6		87		23	49
ApproachDel:	14.0				15.0				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=90]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=698]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=142]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=698]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	38		25	27	41		66	35	6		87	23	49		249	52
Major Street Volume:	466															
Minor Approach Volume:	142															
Minor Approach Volume Threshold:	548															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	10	28	13	25	143	18	10	60	28	66	107	24
ApproachDel:	xxxxxx			xxxxxx			11.2			13.1		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=98]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=532]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=197]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=532]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0
FinalVolume:	10		28	13	25		143	18	10		60	28	66		107	24
Major Street Volume:	237															
Minor Approach Volume:	197															
Minor Approach Volume Threshold:	603															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	5	96	0	0	10	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	96	0	0	10	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	96	0	0	10	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	96	0	0	10	82

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	92	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1515	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1515	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	31	15	7	133	0	0	0	0	2	0	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	31	15	7	133	0	0	0	0	2	0	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	31	15	7	133	0	0	0	0	2	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	31	15	7	133	0	0	0	0	2	0	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	46	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	119	186	23
Potent Cap.:	xxxxx	xxxxx	xxxxx	1575	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	870	712	1055
Move Cap.:	xxxxx	xxxxx	xxxxx	1575	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	867	709	1055
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.00	0.00	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1035	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.6	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	8.6	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: A[9.1]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	33	0	0	79	0	0	0	0	61	0	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	33	0	0	79	0	0	0	0	61	0	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	33	0	0	79	0	0	0	0	61	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	33	0	0	79	0	0	0	0	61	0	6

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	73	xxxx	17
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	929	xxxx	1065
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	929	xxxx	1065
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.01

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.0	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	8.4	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.1			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[7.8]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	42	82	206	67	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	42	82	206	67	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	42	82	206	67	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	42	82	206	67	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	124	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1475	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1475	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: B[10.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	67	0	47	0	0	0	0	51	0	113	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	0	47	0	0	0	0	51	0	113	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	0	47	0	0	0	0	51	0	113	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	67	0	47	0	0	0	0	51	0	113	57	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	334	xxxx	51	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	51	xxxx	xxxxxx
Potent Cap.:	665	xxxx	1023	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1568	xxxx	xxxxxx
Move Cap.:	626	xxxx	1023	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1568	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	0.05	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.07	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.4	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Control Del:	11.4	xxxx	8.7	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.3		xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	B		*		*		*		*		*	

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #557 "O" St & "C" St

Average Delay (sec/veh): 2.6 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	2			2			1			1		

Volume Module:

Base Vol:	7	120	2	79	378	241	59	11	5	10	61	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	120	2	79	378	241	59	11	5	10	61	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	120	2	79	378	241	59	11	5	10	61	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	120	2	79	378	241	59	11	5	10	61	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	120	2	79	378	241	59	11	5	10	61	130

PCE Module:

AutoPCE:	7	120	2	79	378	241	59	11	5	10	61	130
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	7	120	2	79	378	241	59	11	5	10	61	130

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	149	78	467	186
MaxVolume:	2317	2368	948	1100
PedVolume:	0	0	0	0
AdjMaxVol:	2317	2368	948	1100
ApproachVol:	129	698	75	201
ApproachV/C:	0.06	0.29	0.08	0.18
ApproachDel:	1.6	2.2	4.1	4.0
ApproachLOS:	A	A	A	A
Queue:	0.2	1.2	0.3	0.7

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	2	2	0	3	0	1	2	0	2	0	1

Volume Module:

Base Vol:	258	91	38	92	388	559	89	1560	321	66	1425	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	91	38	92	388	559	89	1560	321	66	1425	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	91	38	92	388	559	89	1560	321	66	1425	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	91	38	92	388	559	89	1560	321	66	1425	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	91	38	92	388	559	89	1560	321	66	1425	18

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	1.00	1.00	2.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2398	1002	1700	1700	3400	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.08	0.04	0.04	0.05	0.23	0.16	0.03	0.31	0.19	0.02	0.42	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.542
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	25	24	1	29	21	607	286	208	5	0	383	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	24	1	29	21	607	286	208	5	0	383	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	25	24	1	29	21	607	286	208	0	0	383	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	24	1	29	21	607	286	208	0	0	383	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	25	24	1	29	21	607	286	208	0	0	383	26
OvlAdjVol:	464											

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.96	0.04	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.87	0.13
Final Sat.:	1700	1632	68	1700	1700	1700	3400	3400	0	1700	3184	216

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.01	0.01	0.02	0.01	0.36	0.08	0.06	0.00	0.00	0.12	0.12
OvlAdjV/S:	0.27											
Crit Moves:	****					****	****			****		

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #603 "O" St & "LN" St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: B[13.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	26	65	12	24	395	25	3	6	22	105	52	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	65	12	24	395	25	3	6	22	105	52	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	65	12	24	395	25	3	6	22	105	52	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	65	12	24	395	25	3	6	22	105	52	24

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	420	xxxx	xxxxxx	77	xxxx	xxxxxx	566	585	210	372	591	39
Potent Cap.:	1150	xxxx	xxxxxx	1535	xxxx	xxxxxx	411	426	802	565	422	1031
Move Cap.:	1150	xxxx	xxxxxx	1535	xxxx	xxxxxx	352	410	802	528	406	1031
Volume/Cap:	0.02	xxxx	xxxxxx	0.02	xxxx	xxxxxx	0.01	0.01	0.03	0.20	0.13	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.7	xxxx	xxxxxx
Control Del:	8.2	xxxx	xxxxxx	7.4	xxxx	xxxxxx	15.3	xxxx	xxxxxx	13.5	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	C	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	665	xxxx	xxxx	502
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	xxxx	0.5
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10.6	xxxxxx	xxxx	13.4
Shared LOS:	*	*	*	*	*	*	*	*	B	*	*	B
ApproachDel:	xxxxxx			xxxxxx			11.1			13.5		
ApproachLOS:	*			*			B			B		

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.7      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      68  92  41  35  390  55  10  47  56  92  128  16
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  68  92  41  35  390  55  10  47  56  92  128  16
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  68  92  41  35  390  55  10  47  56  92  128  16
Reduct Vol:   0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:  68  92  41  35  390  55  10  47  56  92  128  16
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  68  92  41  35  390  55  10  47  56  92  128  16
-----|-----|-----|-----|
PCE Module:
AutoPCE:      68  92  41  35  390  55  10  47  56  92  128  16
TruckPCE:      0   0   0   0   0   0   0   0   0   0   0   0
ComboPCE:      0   0   0   0   0   0   0   0   0   0   0   0
BicyclePCE:    0   0   0   0   0   0   0   0   0   0   0   0
AdjVolume:    68  92  41  35  390  55  10  47  56  92  128  16
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      92      288      517      170
MaxVolume:      2358      2217      921      1108
PedVolume:        0         0         0         0
AdjMaxVol:      2358      2217      921      1108
ApproachVol:      201      480      113      236
ApproachV/C:      0.09      0.22      0.12      0.21
ApproachDel:      1.7      2.1      4.5      4.1
ApproachLOS:      A         A         A         A
Queue:          0.3      0.8      0.4      0.8

```


IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: B[12.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	19	49	18	13	55	13	21	63	13	35	138	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	49	18	13	55	13	21	63	13	35	138	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	49	18	13	55	13	21	63	13	35	138	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	49	18	13	55	13	21	63	13	35	138	18

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	363	338	70	362	335	147	156	xxxx	xxxxxx	76	xxxx	xxxxxx
Potent Cap.:	597	587	999	598	589	905	1436	xxxx	xxxxxx	1536	xxxx	xxxxxx
Move Cap.:	529	565	999	532	566	905	1436	xxxx	xxxxxx	1536	xxxx	xxxxxx
Volume/Cap:	0.04	0.09	0.02	0.02	0.10	0.01	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	611	xxxxxx	xxxx	596	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.5	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	11.9	xxxxxx	xxxxxx	12.0	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.9			12.0			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: C[15.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	38	25	27	41	66	35	6	87	23	49	249	52
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	25	27	41	66	35	6	87	23	49	249	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	25	27	41	66	35	6	87	23	49	249	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	25	27	41	66	35	6	87	23	49	249	52

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	534	510	99	510	495	275	301	xxxx	xxxxx	110	xxxx	xxxxx
Potent Cap.:	460	470	963	477	479	769	1272	xxxx	xxxxx	1493	xxxx	xxxxx
Move Cap.:	380	452	963	432	461	769	1272	xxxx	xxxxx	1493	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.03	0.09	0.14	0.05	0.00	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	491	xxxxx	xxxx	501	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	14.0	xxxxx	xxxxx	15.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	C	*	*	*	*	*	*	*
ApproachDel:	14.0			15.0			xxxxxxx			xxxxxxx		
ApproachLOS:	B			C			*			*		

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

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.3 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	36	23	21	41	142	54	11	117	43	65	257	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	23	21	41	142	54	11	117	43	65	257	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	23	21	41	142	54	11	117	43	65	257	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	23	21	41	142	54	11	117	43	65	257	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	23	21	41	142	54	11	117	43	65	257	19

PCE Module:

AutoPCE:	36	23	21	41	142	54	11	117	43	65	257	19
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	36	23	21	41	142	54	11	117	43	65	257	19

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	169	358	248	70
MaxVolume:	1109	1007	1066	1162
PedVolume:	0	0	0	0
AdjMaxVol:	1109	1007	1066	1162
ApproachVol:	80	237	171	341
ApproachV/C:	0.07	0.24	0.16	0.29
ApproachDel:	3.5	4.7	4.0	4.4
ApproachLOS:	A	A	A	A
Queue:	0.2	0.9	0.6	1.2

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.510
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	124	0	150	0	0	0	0	1525	96	123	1187	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	0	150	0	0	0	0	1525	96	123	1187	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	124	0	150	0	0	0	0	1525	96	123	1187	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	0	150	0	0	0	0	1525	96	123	1187	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	124	0	150	0	0	0	0	1525	96	123	1187	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.00	0.09	0.00	0.00	0.00	0.00	0.30	0.06	0.07	0.35	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
Year 2017 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[13.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	10	28	13	25	143	18	10	60	28	66	107	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	28	13	25	143	18	10	60	28	66	107	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	28	13	25	143	18	10	60	28	66	107	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	28	13	25	143	18	10	60	28	66	107	24

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	161	xxxx	xxxxxx	41	xxxx	xxxxxx	322	263	152	301	266	35
Potent Cap.:	1430	xxxx	xxxxxx	1581	xxxx	xxxxxx	635	646	900	656	643	1044
Move Cap.:	1430	xxxx	xxxxxx	1581	xxxx	xxxxxx	530	631	900	579	629	1044
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.10	0.03	0.11	0.17	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	675	xxxxxx	xxxx	641	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	1.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.2	xxxxxx	xxxxxx	13.1	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.2				13.1	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	168	3232	0	0	2550	850
0	0	0	0	0	0	5	96	0	0	10	82
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.03		RTOG	0.00	
RTOR	0.00		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	0.02		RTC	0.03		RTC	0.00	
Addl ICU	0.00		Addl ICU	-0.02		Addl ICU	-0.03		Addl ICU	0.09	
0.00			0.00			0.00			0.09		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.18

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2017 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	170	3230	0	0	0	0	155	0	1545
0	31	15	7	133	0	0	0	0	2	0	20
0.00	0.01	0.02	0.04	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.04		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.05		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.04	
RTC	0.02		RTC	0.06		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.066
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2017 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	33	0	0	79	0	0	0	0	61	0	6
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.02		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.02		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.01	
RTC	0.05		RTC	0.05		RTC	-0.04		RTC	0.05	
Addl ICU	-0.05		Addl ICU	-0.05		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.059											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.11											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	42	82	206	67	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.12	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.02		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.02		RTOG	0.15	
RTOR	0.12		RTOR	0.11		RTOR	0.00		RTOR	0.00	
RTC	0.09		RTC	0.08		RTC	0.02		RTC	0.15	
Addl ICU	-0.09		Addl ICU	-0.08		Addl ICU	0.02		Addl ICU	-0.15	
0.00			0.00			0.02			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.146											
Right Turn Adjustment											
0.02											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.22											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)												
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
1	0	1	0	0	0	0	1	0	0	1	0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1700	0	1700	0	0	0	0	1700	0	1130	570	0	Total Saturation
67	0	47	0	0	0	0	51	0	113	57	0	Volume
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.10	0.10	0.00	Vol/Sat
Critical Movements												
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL		Initial ICU
V/C	0.04		V/C	0.00		V/C	0.03		V/C	0.10		0.169
Right Turn Capacity Adjustment												
RTOG	0.04		RTOG	-0.04		RTOG	0.03		RTOG	0.13		Right Turn Adjustment
RTOR	0.10		RTOR	0.03		RTOR	0.04		RTOR	0.04		
RTC	0.11		RTC	-0.02		RTC	0.06		RTC	0.16		
Addl ICU	-0.09		Addl ICU	0.02		Addl ICU	-0.06		Addl ICU	-0.16		
0.00			0.00			0.00			0.00			0.00
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.22

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
187	3213	42	588	2812	993	1433	267	266	239	1461	579
7	120	2	79	378	241	59	11	5	10	61	130
0.04	0.04	0.04	0.13	0.16	0.16	0.04	0.03	0.03	0.04	0.09	0.09
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.16		V/C	0.04		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.16		RTOG	0.09		RTOG	0.09	
RTOR	0.10		RTOR	0.04		RTOR	0.04		RTOR	0.16	
RTC	0.14		RTC	0.19		RTC	0.12		RTC	0.22	
Addl ICU	-0.11		Addl ICU	-0.03		Addl ICU	-0.09		Addl ICU	-0.12	
0.00			0.00			0.00			0.00		
									Initial ICU		
									0.335		
									Right Turn Adjustment		
									0.00		
									Clearance Interval		
									0.05		
									TOTAL CAPACITY UTILIZATION		
									0.38		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	1	2	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	1700	3400	3400	5100	1700	3400	3400	1700
258	91	38	92	388	559	89	1560	321	66	1425	18
0.08	0.03	0.02	0.05	0.23	0.16	0.03	0.31	0.19	0.02	0.42	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.08		V/C	0.23		V/C	0.03		V/C	0.42	
Right Turn Capacity Adjustment											
RTOG	0.25		RTOG	0.23		RTOG	0.43		RTOG	0.42	
RTOR	0.14		RTOR	0.03		RTOR	0.08		RTOR	0.28	
RTC	0.35		RTC	0.25		RTC	0.48		RTC	0.63	
Addl ICU	-0.33		Addl ICU	-0.08		Addl ICU	-0.29		Addl ICU	-0.62	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.749
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.80

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1632	68	1700	1700	1700	3400	3320	80	0	3184	216
25	24	1	29	21	607	286	208	5	0	383	26
0.01	0.01	0.01	0.02	0.01	0.36	0.08	0.06	0.06	0.00	0.12	0.12
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.01		V/C	0.02		V/C	0.08		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.02		RTOG	0.20		RTOG	0.12	
RTOR	0.14		RTOR	0.08		RTOR	0.02		RTOR	0.02	
RTC	0.12		RTC	0.08		RTC	0.22		RTC	0.13	
Addl ICU	-0.11		Addl ICU	0.28		Addl ICU	-0.16		Addl ICU	-0.01	
0.00			0.28			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.236											
Right Turn Adjustment											
0.28											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.56											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2870	530	1700	3198	202	1700	364	1336	1700	1163	537
26	65	12	24	395	25	3	6	22	105	52	24
0.02	0.02	0.02	0.01	0.12	0.12	0.00	0.02	0.02	0.06	0.04	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.12		V/C	0.02		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.12		RTOG	0.12		RTOG	0.02		RTOG	0.08	
RTOR	0.06		RTOR	0.03		RTOR	0.02		RTOR	0.12	
RTC	0.17		RTC	0.15		RTC	0.03		RTC	0.16	
Addl ICU	-0.15		Addl ICU	-0.03		Addl ICU	-0.01		Addl ICU	-0.12	
0.00			0.00			0.00			0.00		
									Initial ICU		0.217
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
									TOTAL CAPACITY UTILIZATION		0.27

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)												
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1445	1955	786	280	3120	315	298	1402	462	711	989	94	Total Saturation
68	92	41	35	390	55	10	47	56	92	128	16	Volume
0.05	0.05	0.05	0.13	0.13	0.13	0.03	0.06	0.06	0.13	0.13	0.13	Vol/Sat
Critical Movements												
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL		Initial ICU
V/C	0.05		V/C	0.13		V/C	0.06		V/C	0.13		0.361
Right Turn Capacity Adjustment												
RTOG	0.05		RTOG	0.13		RTOG	0.06		RTOG	0.15		Right Turn Adjustment
RTOR	0.13		RTOR	0.05		RTOR	0.05		RTOR	0.13		
RTC	0.15		RTC	0.17		RTC	0.09		RTC	0.25		
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.04		Addl ICU	-0.11		
0.00			0.00			0.00			0.00		0.00	
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.41

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
376	969	356	273	1154	273	368	1104	228	312	1228	160
19	49	18	13	55	13	21	63	13	35	138	18
0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.11	0.11	0.11
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.05		V/C	0.06		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.05		RTOG	0.06		RTOG	0.11	
RTOR	0.11		RTOR	0.06		RTOR	0.05		RTOR	0.05	
RTC	0.13		RTC	0.09		RTC	0.10		RTC	0.15	
Addl ICU	-0.08		Addl ICU	-0.04		Addl ICU	-0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.268											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.32											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
718	472	510	491	790	419	88	1275	337	238	1209	253
38	25	27	41	66	35	6	87	23	49	249	52
0.05	0.05	0.05	0.08	0.08	0.08	0.07	0.07	0.07	0.21	0.21	0.21
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.08		V/C	0.07		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.08		RTOG	0.07		RTOG	0.21	
RTOR	0.21		RTOR	0.07		RTOR	0.05		RTOR	0.08	
RTC	0.21		RTC	0.13		RTC	0.11		RTC	0.27	
Addl ICU	-0.15		Addl ICU	-0.05		Addl ICU	-0.04		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
									Initial ICU		0.411
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
TOTAL CAPACITY UTILIZATION									0.46		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
765	489	446	294	1019	387	109	1163	427	324	1281	95
36	23	21	41	142	54	11	117	43	65	257	19
0.05	0.05	0.05	0.14	0.14	0.14	0.10	0.10	0.10	0.20	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.14		V/C	0.10		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.14		RTOG	0.10		RTOG	0.20	
RTOR	0.20		RTOR	0.10		RTOR	0.05		RTOR	0.14	
RTC	0.20		RTC	0.21		RTC	0.14		RTC	0.31	
Addl ICU	-0.15		Addl ICU	-0.08		Addl ICU	-0.04		Addl ICU	-0.10	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.488
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.54

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	3400	0
124	0	140	0	0	0	0	282	89	111	346	0
0.07	0.00	0.08	0.00	0.00	0.00	0.00	0.06	0.05	0.07	0.10	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.07		V/C	0.00		V/C	0.06		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	-0.07		RTOG	0.06		RTOG	0.12	
RTOR	0.07		RTOR	0.02		RTOR	0.07		RTOR	0.07	
RTC	0.12		RTC	-0.06		RTC	0.11		RTC	0.18	
Addl ICU	-0.04		Addl ICU	0.06		Addl ICU	-0.06		Addl ICU	-0.18	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.194											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.24											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
333	933	433	228	1307	165	173	1041	486	570	923	207
10	28	13	25	143	18	10	60	28	66	107	24
0.03	0.03	0.03	0.11	0.11	0.11	0.06	0.06	0.06	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.06		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.11		RTOG	0.06		RTOG	0.12	
RTOR	0.12		RTOR	0.06		RTOR	0.03		RTOR	0.11	
RTC	0.12		RTC	0.15		RTC	0.08		RTC	0.20	
Addl ICU	-0.09		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Initial ICU											
0.313											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.36

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2017 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	9.0	0.067	A	9.0	0.067	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.9	0.157	A	7.9	0.157	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.7	0.107	B	10.7	0.107	+ 0.000	D/V
#557 "O" St & "C" St	A	2.4	0.261	A	2.4	0.261	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxxx	0.653	B	xxxxxx	0.653	+ 0.000	V/C
#559 "O" St & Trabuco Rd	C	xxxxxx	0.733	C	xxxxxx	0.733	+ 0.000	V/C
#603 "O" St & "LN" St	C	16.7	0.402	C	16.7	0.402	+ 0.000	D/V
#605 "O" St & "LQ" St	A	2.9	0.336	A	2.9	0.336	+ 0.000	V/C
#613 "C" St & "LN" St	B	11.9	0.067	B	11.9	0.067	+ 0.000	D/V
#615 "C" St & "LQ" St	B	14.9	0.117	B	14.9	0.117	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.3	0.310	A	4.3	0.310	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.503	A	xxxxxx	0.503	+ 0.000	V/C
#629 "LY" St & "LN" St	B	12.9	0.213	B	12.9	0.213	+ 0.000	D/V

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#603 "O" St & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1
FinalVolume:	0	0	0	0	0	0	0	0	0	10	104	0	0	0	20	89				
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1
FinalVolume:	0		0		0	0		0		0	10		104		0	0		20		89
Major Street Volume:	223																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	802																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		30		15	7		153		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=219]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		30		15	7		153		0	0		0		0	10		0		4
Major Street Volume:	205																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	831																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		34		0	0		100		0	0		0		0	61		0		24
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=85]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=219]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		34		0	0		100		0	0		0		0	61
Major Street Volume:					134											
Minor Approach Volume:					85											
Minor Approach Volume Threshold:					1238											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0
FinalVolume:	0	0	0	0	0	0	0	0	0	0	61	72	230	61	0	0	0	0	0	0
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		61		72	230		61		0
Major Street Volume:	424																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	580																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	72		0	133	
ApproachDel:	10.7				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=104]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=364]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
FinalVolume:	61		0		43	0		0		0	0		72		0	
Major Street Volume:	260															
Minor Approach Volume:	104															
Minor Approach Volume Threshold:	716															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	
FinalVolume:	16		87		28	20		441		6	5		15		72	
ApproachDel:	xxxxxx				xxxxxx				11.4				16.7			

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=919]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.1]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=229]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=919]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	16		87		28	20		441		6	5		15		72	187		19		23
Major Street Volume:	598																			
Minor Approach Volume:	229																			
Minor Approach Volume Threshold:	595																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	15		35		22	8		18		5	18		83		13	
ApproachDel:	11.7				11.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=72]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=447]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=447]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	15		35	22	8		18	5	18		83	13	41		168	21			
Major Street Volume:					344														
Minor Approach Volume:					72														
Minor Approach Volume Threshold:					504														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	38		25		18	36		51		39	10		109		20	35
ApproachDel:	14.9				14.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=730]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=126]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=730]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0
FinalVolume:	38		25	18	36		51	39	10		109	20	35		294	55	
Major Street Volume:	523																
Minor Approach Volume:	126																
Minor Approach Volume Threshold:	508																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	11		22		8	20		114		25	8		66		39	
ApproachDel:	xxxxxx				xxxxxx				10.9				12.9			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=113]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=516]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=203]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=516]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign				
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	0
FinalVolume:	11		22	8	20		114	25	8		66	39	50		141	12	
Major Street Volume:					200												
Minor Approach Volume:					203												
Minor Approach Volume Threshold:					649												

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	104	0	0	20	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	104	0	0	20	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	104	0	0	20	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	104	0	0	20	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
FollowUpTim:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	109	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1494	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1494	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	30	15	7	153	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	30	15	7	153	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	30	15	7	153	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	30	15	7	153	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	45	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	128	205	23
Potent Cap.:	xxxxx	xxxxx	xxxxx	1576	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	859	695	1056
Move Cap.:	xxxxx	xxxxx	xxxxx	1576	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	856	692	1056
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	905	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	34	0	0	100	0	0	0	0	61	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	34	0	0	100	0	0	0	0	61	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	34	0	0	100	0	0	0	0	61	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	34	0	0	100	0	0	0	0	61	0	24

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	84	xxxx	17
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	1064
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	1064
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.5	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: A[7.9]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	61	72	230	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	61	72	230	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	61	72	230	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	61	72	230	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	133	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1464	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1464	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[10.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	72	0	133	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	72	0	133	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	72	0	133	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	72	0	133	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	393	xxxx	72	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	72	xxxx	xxxxxx
Potent Cap.:	615	xxxx	996	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1541	xxxx	xxxxxx
Move Cap.:	571	xxxx	996	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1541	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.09	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.4	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Control Del:	12.1	xxxx	8.8	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.7		xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx
ApproachLOS:	B		*			*			*			*

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      15  120      2   30  377  209      59  10  14      12  64  66
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  15  120      2   30  377  209      59  10  14      12  64  66
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  15  120      2   30  377  209      59  10  14      12  64  66
Reduct Vol:   0   0      0   0   0      0   0   0      0   0   0
Reduced Vol:  15  120      2   30  377  209      59  10  14      12  64  66
PCE Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  15  120      2   30  377  209      59  10  14      12  64  66
-----|-----|-----|-----|
PCE Module:
AutoPCE:      15  120      2   30  377  209      59  10  14      12  64  66
TruckPCE:      0   0      0   0   0      0   0   0      0   0   0
ComboPCE:      0   0      0   0   0      0   0   0      0   0   0
BicyclePCE:    0   0      0   0   0      0   0   0      0   0   0
AdjVolume:    15  120      2   30  377  209      59  10  14      12  64  66
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      99      91      419      194
MaxVolume:     2353     2358     974     1095
PedVolume:        0        0        0        0
AdjMaxVol:     2353     2358     974     1095
ApproachVol:     137      616      83      142
ApproachV/C:    0.06    0.26    0.09    0.13
ApproachDel:     1.6      2.1      4.0      3.8
ApproachLOS:      A        A        A        A
Queue:          0.2      1.1      0.3      0.4

```


IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	194	91	37	111	378	505	83	1431	237	69	1394	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	194	91	37	111	378	505	83	1431	237	69	1394	24
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	91	37	111	378	0	83	1431	237	69	1394	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	91	37	111	378	0	83	1431	237	69	1394	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	91	37	111	378	0	83	1431	237	69	1394	24

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.42	0.58	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2417	983	1700	3400	1700	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.06	0.04	0.04	0.07	0.11	0.00	0.02	0.28	0.14	0.02	0.41	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 41 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	70	65	2	33	89	838	410	192	49	5	466	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	65	2	33	89	838	410	192	49	5	466	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	70	65	2	33	89	838	410	192	0	5	466	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	65	2	33	89	838	410	192	0	5	466	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	70	65	2	33	89	838	410	192	0	5	466	39
OvlAdjVol:	633											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.97	0.03	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.85	0.15
Final Sat.:	1700	1649	51	1700	1700	1700	3400	3400	0	1700	3137	263

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.02	0.05	0.49	0.12	0.06	0.00	0.00	0.15	0.15	
OvlAdjV/S:	0.37												
Crit Moves:	****						****	****					****

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #603 "O" St & "LN" St

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: C[16.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	16	87	28	20	441	6	5	15	72	187	19	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	87	28	20	441	6	5	15	72	187	19	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	87	28	20	441	6	5	15	72	187	19	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	87	28	20	441	6	5	15	72	187	19	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	447	xxxx	xxxxxx	115	xxxx	xxxxxx	569	631	224	401	620	58
Potent Cap.:	1124	xxxx	xxxxxx	1487	xxxx	xxxxxx	409	401	786	539	407	1003
Move Cap.:	1124	xxxx	xxxxxx	1487	xxxx	xxxxxx	377	390	786	465	395	1003
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.04	0.09	0.40	0.05	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	1.9	xxxx	xxxxxx
Control Del:	8.2	xxxx	xxxxxx	7.5	xxxx	xxxxxx	14.7	xxxx	xxxxxx	17.9	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	B	*	*	C	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	669	xxxx	xxxx	592
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.4	xxxxxx	xxxx	0.2
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	11.2	xxxxxx	xxxx	11.5
Shared LOS:	*	*	*	*	*	*	*	*	B	*	*	B
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.4	xxxxxx	xxxxxx	16.7	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	B	B	C	C	C

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.9      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      39  122      55      54  646      41      5  25      31  167  95      27
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  39  122      55      54  646      41      5  25      31  167  95      27
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  39  122      55      54  646      41      5  25      31  167  95      27
Reduct Vol:   0   0      0      0   0      0      0   0      0      0   0      0
Reduced Vol:  39  122      55      54  646      41      5  25      31  167  95      27
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  39  122      55      54  646      41      5  25      31  167  95      27
-----|-----|-----|-----|
PCE Module:
AutoPCE:      39  122      55      54  646      41      5  25      31  167  95      27
TruckPCE:      0   0      0      0   0      0      0   0      0      0   0      0
ComboPCE:      0   0      0      0   0      0      0   0      0      0   0      0
BicyclePCE:    0   0      0      0   0      0      0   0      0      0   0      0
AdjVolume:  39  122      55      54  646      41      5  25      31  167  95      27
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      84      301      867      166
MaxVolume:      2364      2207      732      1110
PedVolume:        0        0        0        0
AdjMaxVol:      2364      2207      732      1110
ApproachVol:      216      741      61      289
ApproachV/C:      0.09      0.34      0.08      0.26
ApproachDel:      1.7      2.5      5.4      4.4
ApproachLOS:      A      A      A      A
Queue:          0.3      1.5      0.3      1.0

```


IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[11.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	15	35	22	8	18	5	18	83	13	41	168	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	35	22	8	18	5	18	83	13	41	168	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	35	22	8	18	5	18	83	13	41	168	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	35	22	8	18	5	18	83	13	41	168	21

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	398	397	90	415	393	179	189	xxxx	xxxxxx	96	xxxx	xxxxxx
Potent Cap.:	566	544	974	552	547	870	1397	xxxx	xxxxxx	1510	xxxx	xxxxxx
Move Cap.:	531	522	974	496	525	870	1397	xxxx	xxxxxx	1510	xxxx	xxxxxx
Volume/Cap:	0.03	0.07	0.02	0.02	0.03	0.01	0.01	xxxx	xxxxxx	0.03	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	611	xxxxxx	xxxx	552	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.4	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	11.7	xxxxxx	xxxxxx	11.9	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.7			11.9			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: B[14.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	38	25	18	36	51	39	10	109	20	35	294	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	25	18	36	51	39	10	109	20	35	294	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	25	18	36	51	39	10	109	20	35	294	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	25	18	36	51	39	10	109	20	35	294	55

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	576	558	119	552	541	322	349	xxxx	xxxxx	129	xxxx	xxxxx
Potent Cap.:	432	441	938	447	451	724	1221	xxxx	xxxxx	1469	xxxx	xxxxx
Move Cap.:	363	427	938	409	437	724	1221	xxxx	xxxxx	1469	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.02	0.09	0.12	0.05	0.01	xxxx	xxxxx	0.02	xxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	444	xxxxx	xxxx	487	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	14.9	xxxxx	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	14.9			14.9			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.3      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      25      8      7      36 101      55      6 135      41      54 300      11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 25      8      7      36 101      55      6 135      41      54 300      11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25      8      7      36 101      55      6 135      41      54 300      11
Reduct Vol: 0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol: 25      8      7      36 101      55      6 135      41      54 300      11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 25      8      7      36 101      55      6 135      41      54 300      11
-----|-----|-----|-----|
PCE Module:
AutoPCE:      25      8      7      36 101      55      6 135      41      54 300      11
TruckPCE:      0      0      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0      0      0
AdjVolume: 25      8      7      36 101      55      6 135      41      54 300      11
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      177      379      191      39
MaxVolume:      1104      995      1097      1179
PedVolume:      0      0      0      0
AdjMaxVol:      1104      995      1097      1179
ApproachVol:      40      192      182      365
ApproachV/C:      0.04      0.19      0.17      0.31
ApproachDel:      3.4      4.5      3.9      4.4
ApproachLOS:      A      A      A      A
Queue:      0.1      0.7      0.6      1.3

```


IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.503

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 24 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	80	0	98	0	0	0	0	1491	63	83	1343	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	0	98	0	0	0	0	1491	63	83	1343	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	80	0	98	0	0	0	0	1491	63	83	1343	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	0	98	0	0	0	0	1491	63	83	1343	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	0	98	0	0	0	0	1491	63	83	1343	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.00	0.06	0.00	0.00	0.00	0.00	0.29	0.04	0.05	0.40	0.00
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.9 Worst Case Level Of Service: B[12.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	11	22	8	20	114	25	8	66	39	50	141	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	22	8	20	114	25	8	66	39	50	141	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	22	8	20	114	25	8	66	39	50	141	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	22	8	20	114	25	8	66	39	50	141	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	139	xxxx	xxxxxx	30	xxxx	xxxxxx	291	219	127	267	227	26
Potent Cap.:	1457	xxxx	xxxxxx	1596	xxxx	xxxxxx	665	683	929	690	676	1056
Move Cap.:	1457	xxxx	xxxxxx	1596	xxxx	xxxxxx	542	669	929	602	662	1056
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.10	0.04	0.08	0.21	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	727	xxxxxx	xxxx	660	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	1.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.9	xxxxxx	xxxxxx	12.9	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx				10.9			12.9	
ApproachLOS:	*			*				B			B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 1) With Project						Time Period:		AM			
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	298	3102	0	0	2550	850
0	0	0	0	0	0	10	104	0	0	20	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.03		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.03		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION										0.19	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	149	3251	0	0	0	0	1214	0	486
0	30	15	7	153	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.02		RTC	0.07		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.067
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	34	0	0	100	0	0	0	0	61	0	24
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.02	
RTC	0.06		RTC	0.06		RTC	-0.04		RTC	0.05	
Addl ICU	-0.06		Addl ICU	-0.06		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.065
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	61	72	230	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.14	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.17	
RTOR	0.14		RTOR	0.14		RTOR	0.00		RTOR	0.00	
RTC	0.10		RTC	0.10		RTC	0.04		RTC	0.17	
Addl ICU	-0.10		Addl ICU	-0.10		Addl ICU	0.01		Addl ICU	-0.17	
0.00			0.00			0.01			0.00		
											Initial ICU
											0.171
											Right Turn Adjustment
											0.01
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.23

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1203	497	0
61	0	43	0	0	0	0	72	0	133	55	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.11	0.11	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.15	
RTOR	0.11		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.12		RTC	0.00		RTC	0.07		RTC	0.18	
Addl ICU	-0.09		Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	-0.18	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.189											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.24											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
378	3022	42	251	3149	909	1454	246	496	268	1432	432
15	120	2	30	377	209	59	10	14	12	64	66
0.04	0.04	0.04	0.12	0.14	0.14	0.04	0.03	0.03	0.04	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.14		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.14		RTOG	0.07		RTOG	0.07	
RTOR	0.08		RTOR	0.04		RTOR	0.04		RTOR	0.14	
RTC	0.12		RTC	0.17		RTC	0.10		RTC	0.18	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.11	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.294
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.34

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	3400	1700
194	91	37	111	378	505	83	1431	237	69	1394	24
0.06	0.03	0.02	0.07	0.11	0.00	0.02	0.28	0.14	0.02	0.41	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.11		V/C	0.02		V/C	0.41	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.11		RTOG	0.41		RTOG	0.41	
RTOR	0.15		RTOR	0.02		RTOR	0.06		RTOR	0.14	
RTC	0.22		RTC	0.13		RTC	0.46		RTC	0.52	
Addl ICU	-0.20		Addl ICU	-0.13		Addl ICU	-0.32		Addl ICU	-0.50	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.603											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.65											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1649	51	1700	1700	1700	3400	2709	691	1700	3137	263
70	65	2	33	89	838	410	192	49	5	466	39
0.04	0.04	0.04	0.02	0.05	0.49	0.12	0.07	0.07	0.00	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.05		V/C	0.12		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.05		RTOG	0.27		RTOG	0.15	
RTOR	0.20		RTOR	0.12		RTOR	0.04		RTOR	0.05	
RTC	0.22		RTC	0.14		RTC	0.30		RTC	0.19	
Addl ICU	-0.18		Addl ICU	0.35		Addl ICU	-0.23		Addl ICU	-0.04	
0.00			0.35			0.00			0.00		
Initial ICU											
0.363											
Right Turn Adjustment											
0.35											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.76											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2572	828	1700	3354	46	1700	293	1407	1700	769	931
16	87	28	20	441	6	5	15	72	187	19	23
0.01	0.03	0.03	0.01	0.13	0.13	0.00	0.05	0.05	0.11	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.13		V/C	0.05		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.13		RTOG	0.05		RTOG	0.16	
RTOR	0.11		RTOR	0.14		RTOR	0.01		RTOR	0.11	
RTC	0.21		RTC	0.23		RTC	0.06		RTC	0.24	
Addl ICU	-0.18		Addl ICU	-0.10		Addl ICU	-0.01		Addl ICU	-0.21	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.302											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.35											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
824	2576	792	262	3138	152	283	1417	471	1084	616	188
39	122	55	54	646	41	5	25	31	167	95	27
0.05	0.05	0.05	0.21	0.21	0.21	0.02	0.03	0.03	0.15	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.21		V/C	0.03		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.21		RTOG	0.03		RTOG	0.17	
RTOR	0.15		RTOR	0.03		RTOR	0.05		RTOR	0.20	
RTC	0.17		RTC	0.23		RTC	0.07		RTC	0.32	
Addl ICU	-0.11		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.440
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.49

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
354	826	519	439	987	274	268	1238	194	303	1242	155
15	35	22	8	18	5	18	83	13	41	168	21
0.04	0.04	0.04	0.02	0.02	0.02	0.07	0.07	0.07	0.14	0.14	0.14
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.02		V/C	0.07		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.02		RTOG	0.07		RTOG	0.14	
RTOR	0.14		RTOR	0.07		RTOR	0.04		RTOR	0.02	
RTC	0.14		RTC	0.07		RTC	0.10		RTC	0.15	
Addl ICU	-0.10		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.01	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.263											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.31											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
798	525	378	486	688	526	122	1333	245	155	1302	243
38	25	18	36	51	39	10	109	20	35	294	55
0.05	0.05	0.05	0.07	0.07	0.07	0.08	0.08	0.08	0.23	0.23	0.23
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.07		V/C	0.08		V/C	0.23	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.07		RTOG	0.08		RTOG	0.23	
RTOR	0.23		RTOR	0.08		RTOR	0.05		RTOR	0.07	
RTC	0.22		RTC	0.14		RTC	0.12		RTC	0.28	
Addl ICU	-0.17		Addl ICU	-0.06		Addl ICU	-0.04		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.429											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.48											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1063	340	298	319	894	487	56	1261	383	252	1397	51
25	8	7	36	101	55	6	135	41	54	300	11
0.02	0.02	0.02	0.11	0.11	0.11	0.11	0.11	0.11	0.21	0.21	0.21
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.11		V/C	0.11		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.11		RTOG	0.11		RTOG	0.21	
RTOR	0.21		RTOR	0.11		RTOR	0.02		RTOR	0.11	
RTC	0.18		RTC	0.19		RTC	0.12		RTC	0.30	
Addl ICU	-0.16		Addl ICU	-0.08		Addl ICU	-0.02		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.458											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.51											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	24	5076	1700	1700	3391	9
70	3	86	0	0	0	1	214	43	82	385	1
0.04	0.00	0.05	0.00	0.00	0.00	0.04	0.04	0.03	0.05	0.11	0.11
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.11		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.13		RTC	-0.01		RTC	0.14		RTC	0.14	
Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.11		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Initial ICU											
0.197											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.25

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
456	912	332	214	1219	267	120	993	587	419	1181	100
11	22	8	20	114	25	8	66	39	50	141	12
0.02	0.02	0.02	0.09	0.09	0.09	0.07	0.07	0.07	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.09		V/C	0.07		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.09		RTOG	0.07		RTOG	0.12	
RTOR	0.12		RTOR	0.07		RTOR	0.02		RTOR	0.09	
RTC	0.11		RTC	0.14		RTC	0.08		RTC	0.19	
Addl ICU	-0.09		Addl ICU	-0.05		Addl ICU	-0.02		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.304
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.35

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2017 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	8.9	0.056	A	8.9	0.056	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.9	0.159	A	7.9	0.159	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.8	0.111	B	10.8	0.111	+ 0.000	D/V
#557 "O" St & "C" St	A	2.4	0.252	A	2.4	0.252	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxxx	0.648	B	xxxxxx	0.648	+ 0.000	V/C
#559 "O" St & Trabuco Rd	C	xxxxxx	0.736	C	xxxxxx	0.736	+ 0.000	V/C
#603 "O" St & "LN" St	C	15.6	0.383	C	15.6	0.383	+ 0.000	D/V
#605 "O" St & "LQ" St	A	3.0	0.327	A	3.0	0.327	+ 0.000	V/C
#613 "C" St & "LN" St	B	12.9	0.082	B	12.9	0.082	+ 0.000	D/V
#615 "C" St & "LQ" St	C	17.9	0.235	C	17.9	0.235	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.2	0.293	A	4.2	0.293	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.501	A	xxxxxx	0.501	+ 0.000	V/C
#629 "LY" St & "LN" St	B	13.2	0.235	B	13.2	0.235	+ 0.000	D/V

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#603 "O" St & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1
FinalVolume:	0	0	0	0	0	0	0	0	0	0	5	97	0	0	0	0	11	89		
ApproachDel:	xxxxxxx					xxxxxxx					xxxxxxx					xxxxxxx				

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1
FinalVolume:	0		0		0	0		0		0	5		97		0	0		11		89
Major Street Volume:	202																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	836																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		32		15	7		142		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=210]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		32		15	7		142		0	0		0		0	10		0		4
Major Street Volume:	196																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	846																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		34		0	0		100		0	0		0		0	51		0		30
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				8.9							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=215]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	1
Final Volume:	0		34	0	0		100	0	0		0	0	0	51		0	30	
Major Street Volume:	134																	
Minor Approach Volume:	81																	
Minor Approach Volume Threshold:	1238																	

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0
FinalVolume:	0	0	0	0	0	0	0	0	0	0	61	74	232	61	0	0	0	0	0	0
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		61		74	232		61		0
Major Street Volume:	428																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	577																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		47	0		0		0	0	72		0	144	
ApproachDel:	10.8				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=108]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=381]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		47	0		0		0	0	72		0	144 57 0	
Major Street Volume:					273											
Minor Approach Volume:					108											
Minor Approach Volume Threshold:					701											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	14		74		24	23		385		6	6		16		70	192		22		24
ApproachDel:	xxxxxx				xxxxxx				11.1				15.6							

Approach[eastbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=856]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.0]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=238]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=856]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #603 "O" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	14		74		24	23		385		6	6		16		70	192		22		24
Major Street Volume:	526																			
Minor Approach Volume:	238																			
Minor Approach Volume Threshold:	650																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	18		38		23	12		40		9	19		82		18	
ApproachDel:	12.4				12.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=79]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=512]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=61]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=512]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	18		38	23	12		40	9	19		82	18	56		174	23			
Major Street Volume:	372																		
Minor Approach Volume:	79																		
Minor Approach Volume Threshold:	483																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	42		35		33	43		101		33	7		84		26	69
ApproachDel:	15.8				17.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=766]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=177]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=766]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	
FinalVolume:	42		35		33	43		101		33	7		84		26	
Major Street Volume:	479															
Minor Approach Volume:	177															
Minor Approach Volume Threshold:	538															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	11		17		7	22	125		32		12	64		37		
ApproachDel:	xxxxxx				xxxxxx				11.1				13.2			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=113]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=542]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=215]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=542]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	11		17	7	22		125	32	12		64	37	47		152	16			

Major Street Volume: 214
Minor Approach Volume: 215
Minor Approach Volume Threshold: 631

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	5	97	0	0	11	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	97	0	0	11	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	97	0	0	11	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	97	0	0	11	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
FollowUpTim:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	100	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1505	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1505	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	32	15	7	142	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	32	15	7	142	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	32	15	7	142	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	32	15	7	142	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	47	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	125	196	24
Potent Cap.:	xxxxx	xxxxx	xxxxx	1573	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	863	703	1054
Move Cap.:	xxxxx	xxxxx	xxxxx	1573	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	860	700	1054
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	908	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: A[8.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	0	2	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	34	0	0	100	0	0	0	0	51	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	34	0	0	100	0	0	0	0	51	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	34	0	0	100	0	0	0	0	51	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	34	0	0	100	0	0	0	0	51	0	30

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	84	xxxx	17
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	1064
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	1064
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.5
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.9		
ApproachLOS:	*			*			*			A		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: A[7.9]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	0	61	74	232	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	61	74	232	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	61	74	232	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	61	74	232	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	135	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1462	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1462	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[10.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	47	0	0	0	0	72	0	144	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	47	0	0	0	0	72	0	144	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	47	0	0	0	0	72	0	144	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	47	0	0	0	0	72	0	144	57	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	417	xxxx	72	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	72	xxxx	xxxxxx
Potent Cap.:	596	xxxx	996	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1541	xxxx	xxxxxx
Move Cap.:	550	xxxx	996	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1541	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	0.05	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.09	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.4	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Control Del:	12.4	xxxx	8.8	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.8		xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	B		*		*		*		*		*	

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

FHWA Roundabout Method (Base Volume Alternative)

Intersection #557 "O" St & "C" St

Average Delay (sec/veh): 2.4 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	2			2			1			1		

Volume Module:

Base Vol:	12	112	3	53	330	211	57	16	10	11	65	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	112	3	53	330	211	57	16	10	11	65	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	112	3	53	330	211	57	16	10	11	65	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	112	3	53	330	211	57	16	10	11	65	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	112	3	53	330	211	57	16	10	11	65	77

PCE Module:

AutoPCE:	12	112	3	53	330	211	57	16	10	11	65	77
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	12	112	3	53	330	211	57	16	10	11	65	77

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	126	88	394	181
MaxVolume:	2333	2361	987	1102
PedVolume:	0	0	0	0
AdjMaxVol:	2333	2361	987	1102
ApproachVol:	127	594	83	153
ApproachV/C:	0.05	0.25	0.08	0.14
ApproachDel:	1.6	2.0	4.0	3.8
ApproachLOS:	A	A	A	A
Queue:	0.2	1.0	0.3	0.5

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Protected			Protected			Protected			Protected				
Rights:	WideBypass			Ignore			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	1

Volume Module:

Base Vol:	194	91	37	115	371	509	82	1431	226	67	1386	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	194	91	37	115	371	509	82	1431	226	67	1386	25
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	91	37	115	371	0	82	1431	226	67	1386	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	91	37	115	371	0	82	1431	226	67	1386	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	91	37	115	371	0	82	1431	226	67	1386	25

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.42	0.58	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	2417	983	1700	3400	1700	3400	5100	1700	3400	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.06	0.04	0.04	0.07	0.11	0.00	0.02	0.28	0.13	0.02	0.41	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.736

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 41 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	77	53	4	44	90	847	318	292	48	5	458	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	53	4	44	90	847	318	292	48	5	458	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	77	53	4	44	90	847	318	292	0	5	458	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	53	4	44	90	847	318	292	0	5	458	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	77	53	4	44	90	847	318	292	0	5	458	27
OvlAdjVol:	688											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.93	0.07	1.00	1.00	1.00	2.00	2.00	0.00	1.00	1.89	0.11
Final Sat.:	1700	1581	119	1700	1700	1700	3400	3400	0	1700	3211	189

Capacity Analysis Module:

Vol/Sat:	0.05	0.03	0.03	0.03	0.05	0.50	0.09	0.09	0.00	0.00	0.14	0.14	
OvlAdjV/S:	0.40												
Crit Moves:	****						****	****					****

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #603 "O" St & "LN" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: C[15.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	14	74	24	23	385	6	6	16	70	192	22	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	74	24	23	385	6	6	16	70	192	22	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	74	24	23	385	6	6	16	70	192	22	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	74	24	23	385	6	6	16	70	192	22	24

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	391	xxxx	xxxxxx	98	xxxx	xxxxxx	510	560	196	361	551	49
Potent Cap.:	1179	xxxx	xxxxxx	1508	xxxx	xxxxxx	451	440	819	575	445	1016
Move Cap.:	1179	xxxx	xxxxxx	1508	xxxx	xxxxxx	414	428	819	501	433	1016
Volume/Cap:	0.01	xxxx	xxxxxx	0.02	xxxx	xxxxxx	0.01	0.04	0.09	0.38	0.05	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	1.8	xxxx	xxxxxx
Control Del:	8.1	xxxx	xxxxxx	7.4	xxxx	xxxxxx	13.8	xxxx	xxxxxx	16.6	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	B	*	*	C	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	700	xxxx	xxxx	618
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.4	xxxxxx	xxxx	0.2
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10.9	xxxxxx	xxxx	11.3
Shared LOS:	*	*	*	*	*	*	*	*	B	*	*	B
ApproachDel:	xxxxxx			xxxxxx			11.1			15.6		
ApproachLOS:	*			*			B			C		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.0      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      42  112      49  41  642      33      5  23      35  188  100      24
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  42  112      49  41  642      33      5  23      35  188  100      24
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  42  112      49  41  642      33      5  23      35  188  100      24
Reduct Vol:   0   0      0   0   0      0   0   0      0   0   0      0
Reduced Vol:  42  112      49  41  642      33      5  23      35  188  100      24
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  42  112      49  41  642      33      5  23      35  188  100      24
-----|-----|-----|-----|
PCE Module:
AutoPCE:      42  112      49  41  642      33      5  23      35  188  100      24
TruckPCE:      0   0      0   0   0      0   0   0      0   0   0      0
ComboPCE:      0   0      0   0   0      0   0   0      0   0   0      0
BicyclePCE:    0   0      0   0   0      0   0   0      0   0   0      0
AdjVolume:  42  112      49  41  642      33      5  23      35  188  100      24
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      69      330      871      159
MaxVolume:     2374     2186     730     1114
PedVolume:        0        0        0        0
AdjMaxVol:     2374     2186     730     1114
ApproachVol:     203      716      63      312
ApproachV/C:    0.09    0.33    0.09    0.28
ApproachDel:     1.7      2.4      5.4      4.5
ApproachLOS:      A        A        A        A
Queue:          0.3      1.4      0.3      1.2

```


IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[12.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	18	38	23	12	40	9	19	82	18	56	174	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	38	23	12	40	9	19	82	18	56	174	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	38	23	12	40	9	19	82	18	56	174	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	18	38	23	12	40	9	19	82	18	56	174	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	451	438	91	457	436	186	197	xxxx	xxxxxx	100	xxxx	xxxxxx
Potent Cap.:	522	515	972	517	517	862	1388	xxxx	xxxxxx	1505	xxxx	xxxxxx
Move Cap.:	465	489	972	456	490	862	1388	xxxx	xxxxxx	1505	xxxx	xxxxxx
Volume/Cap:	0.04	0.08	0.02	0.03	0.08	0.01	0.01	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	564	xxxxxx	xxxx	516	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.5	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	12.4	xxxxxx	xxxxxx	12.9	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	12.4			12.9			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: C[17.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	42	35	33	43	101	33	7	84	26	69	256	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	35	33	43	101	33	7	84	26	69	256	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	35	33	43	101	33	7	84	26	69	256	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	42	35	33	43	101	33	7	84	26	69	256	37

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	591	542	97	558	537	275	293	xxxx	xxxxx	110	xxxx	xxxxx
Potent Cap.:	422	450	965	444	454	769	1280	xxxx	xxxxx	1493	xxxx	xxxxx
Move Cap.:	318	427	965	386	430	769	1280	xxxx	xxxxx	1493	xxxx	xxxxx
Volume/Cap:	0.13	0.08	0.03	0.11	0.23	0.04	0.01	xxxx	xxxxx	0.05	xxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	443	xxxxx	xxxx	455	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	1.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.8	xxxxx	xxxxx	17.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.8			17.9			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.2      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      26  12  9  36 111  56  8 121  41  55 274  15
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  26  12  9  36 111  56  8 121  41  55 274  15
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  26  12  9  36 111  56  8 121  41  55 274  15
Reduct Vol:  0  0  0  0  0  0  0  0  0  0  0  0
Reduced Vol:  26  12  9  36 111  56  8 121  41  55 274  15
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  26  12  9  36 111  56  8 121  41  55 274  15
-----|-----|-----|-----|
PCE Module:
AutoPCE:      26  12  9  36 111  56  8 121  41  55 274  15
TruckPCE:      0  0  0  0  0  0  0  0  0  0  0  0
ComboPCE:      0  0  0  0  0  0  0  0  0  0  0  0
BicyclePCE:    0  0  0  0  0  0  0  0  0  0  0  0
AdjVolume:    26  12  9  36 111  56  8 121  41  55 274  15
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      165      355      202      46
MaxVolume:      1111      1008      1091      1175
PedVolume:      0      0      0      0
AdjMaxVol:      1111      1008      1091      1175
ApproachVol:      47      203      170      344
ApproachV/C:      0.04      0.20      0.16      0.29
ApproachDel:      3.4      4.5      3.9      4.3
ApproachLOS:      A      A      A      A
Queue:      0.1      0.8      0.6      1.2

```


IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	2	0	0

Volume Module:

Base Vol:	78	0	99	0	0	0	0	1490	67	90	1335	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	0	99	0	0	0	0	1490	67	90	1335	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	0	99	0	0	0	0	1490	67	90	1335	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	0	99	0	0	0	0	1490	67	90	1335	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	0	99	0	0	0	0	1490	67	90	1335	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	3400	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.00	0.06	0.00	0.00	0.00	0.00	0.29	0.04	0.05	0.39	0.00
Crit Moves:	****			****				****				

IUSD K-8 School
Year 2017 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: B[13.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	11	17	7	22	125	32	12	64	37	47	152	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	17	7	22	125	32	12	64	37	47	152	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	17	7	22	125	32	12	64	37	47	152	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	17	7	22	125	32	12	64	37	47	152	16

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	157	xxxx	xxxxxx	24	xxxx	xxxxxx	312	231	141	278	244	21
Potent Cap.:	1435	xxxx	xxxxxx	1604	xxxx	xxxxxx	645	672	912	678	662	1063
Move Cap.:	1435	xxxx	xxxxxx	1604	xxxx	xxxxxx	512	658	912	593	648	1063
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.02	0.10	0.04	0.08	0.23	0.02

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	701	xxxxxx	xxxx	653	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.6	xxxxxx	xxxxxx	1.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.1	xxxxxx	xxxxxx	13.2	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx				11.1			13.2	
ApproachLOS:	*			*				B			B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project						Time Period:		AM			
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	167	3233	0	0	2550	850
0	0	0	0	0	0	5	97	0	0	11	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.00	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.03		RTOG	0.00	
RTOR	0.00		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.00		RTC	0.02		RTC	0.03		RTC	0.00	
Addl ICU	0.00		Addl ICU	-0.02		Addl ICU	-0.03		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
										Initial ICU	
										0.034	
										Right Turn Adjustment	
										0.10	
										Clearance Interval	
										0.05	
										TOTAL CAPACITY UTILIZATION	
										0.18	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	160	3240	0	0	0	0	1214	0	486
0	32	15	7	142	0	0	0	0	10	0	4
0.00	0.01	0.02	0.04	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.04		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.04	
RTC	0.02		RTC	0.06		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.065
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.11

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	34	0	0	100	0	0	0	0	51	0	30
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.03		RTOG	0.03	
RTOR	0.03		RTOR	0.03		RTOR	0.00		RTOR	0.02	
RTC	0.05		RTC	0.05		RTC	-0.03		RTC	0.04	
Addl ICU	-0.05		Addl ICU	-0.05		Addl ICU	0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
										Initial ICU	
										0.059	
										Right Turn Adjustment	
										0.00	
										Clearance Interval	
										0.05	
TOTAL CAPACITY UTILIZATION										0.11	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	61	74	232	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.14	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.17	
RTOR	0.14		RTOR	0.14		RTOR	0.00		RTOR	0.00	
RTC	0.10		RTC	0.10		RTC	0.04		RTC	0.17	
Addl ICU	-0.10		Addl ICU	-0.10		Addl ICU	0.01		Addl ICU	-0.17	
0.00			0.00			0.01			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.172											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.23											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1218	482	0
61	0	47	0	0	0	0	72	0	144	57	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.12	0.12	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.16	
RTOR	0.12		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.12		RTC	0.00		RTC	0.07		RTC	0.19	
Addl ICU	-0.10		Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	-0.19	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.196											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.25											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
329	3071	67	470	2930	995	1327	373	327	246	1454	461
12	112	3	53	330	211	57	16	10	11	65	77
0.04	0.04	0.04	0.11	0.14	0.14	0.04	0.04	0.04	0.04	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.14		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.14		RTOG	0.07		RTOG	0.07	
RTOR	0.08		RTOR	0.04		RTOR	0.04		RTOR	0.14	
RTC	0.12		RTC	0.17		RTC	0.10		RTC	0.18	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.10	
0.00			0.00			0.00			0.00		
Initial ICU											
0.291											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.34

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	2	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	3400	1700
194	91	37	115	371	509	82	1431	226	67	1386	25
0.06	0.03	0.02	0.07	0.11	0.00	0.02	0.28	0.13	0.02	0.41	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.11		V/C	0.02		V/C	0.41	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.11		RTOG	0.41		RTOG	0.41	
RTOR	0.15		RTOR	0.02		RTOR	0.06		RTOR	0.14	
RTC	0.21		RTC	0.13		RTC	0.45		RTC	0.51	
Addl ICU	-0.19		Addl ICU	-0.13		Addl ICU	-0.32		Addl ICU	-0.50	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.598											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.65											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1	0	1	1	1	2	2	0	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	1581	119	1700	1700	1700	3400	2920	480	1700	3211	189
77	53	4	44	90	847	318	292	48	5	458	27
0.05	0.03	0.03	0.03	0.05	0.50	0.09	0.10	0.10	0.00	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.05		V/C	0.09		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.05		RTOG	0.23		RTOG	0.14	
RTOR	0.14		RTOR	0.09		RTOR	0.05		RTOR	0.06	
RTC	0.17		RTC	0.12		RTC	0.27		RTC	0.19	
Addl ICU	-0.14		Addl ICU	0.38		Addl ICU	-0.17		Addl ICU	-0.05	
0.00			0.38			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.334
											Right Turn Adjustment
											0.38
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.76

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2567	833	1700	3348	52	1700	316	1384	1700	813	887
14	74	24	23	385	6	6	16	70	192	22	24
0.01	0.03	0.03	0.01	0.12	0.12	0.00	0.05	0.05	0.11	0.03	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.12		V/C	0.05		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.11		RTOG	0.12		RTOG	0.05		RTOG	0.16	
RTOR	0.11		RTOR	0.14		RTOR	0.01		RTOR	0.09	
RTC	0.19		RTC	0.22		RTC	0.06		RTC	0.23	
Addl ICU	-0.17		Addl ICU	-0.10		Addl ICU	-0.01		Addl ICU	-0.20	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.287											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.34											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
927	2473	776	204	3196	125	304	1396	513	1110	590	165
42	112	49	41	642	33	5	23	35	188	100	24
0.05	0.05	0.05	0.20	0.20	0.20	0.02	0.03	0.03	0.17	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.20		V/C	0.03		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.20		RTOG	0.03		RTOG	0.18	
RTOR	0.17		RTOR	0.04		RTOR	0.05		RTOR	0.20	
RTC	0.17		RTC	0.23		RTC	0.06		RTC	0.33	
Addl ICU	-0.13		Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.448
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.50

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM	
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
387	818	495	334	1115	251	271	1171	257	376	1169	155
18	38	23	12	40	9	19	82	18	56	174	23
0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.15	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.04		V/C	0.07		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.04		RTOG	0.07		RTOG	0.15	
RTOR	0.15		RTOR	0.07		RTOR	0.05		RTOR	0.04	
RTC	0.16		RTC	0.09		RTC	0.10		RTC	0.18	
Addl ICU	-0.11		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Initial ICU											
0.301											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.35

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
649	541	510	413	970	317	102	1221	378	324	1202	174
42	35	33	43	101	33	7	84	26	69	256	37
0.06	0.06	0.06	0.10	0.10	0.10	0.07	0.07	0.07	0.21	0.21	0.21
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.10		V/C	0.07		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.10		RTOG	0.07		RTOG	0.21	
RTOR	0.21		RTOR	0.07		RTOR	0.06		RTOR	0.10	
RTC	0.22		RTC	0.16		RTC	0.12		RTC	0.29	
Addl ICU	-0.16		Addl ICU	-0.05		Addl ICU	-0.05		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
									Initial ICU		0.451
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
									TOTAL CAPACITY UTILIZATION		0.50

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.0	1.0	0	0.0	1.0	0	0.0	1.0	0	0.0	1.0	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
940	434	326	301	930	469	80	1210	410	272	1354	74
26	12	9	36	111	56	8	121	41	55	274	15
0.03	0.03	0.03	0.12	0.12	0.12	0.10	0.10	0.10	0.20	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.12		V/C	0.10		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.12		RTOG	0.10		RTOG	0.20	
RTOR	0.20		RTOR	0.10		RTOR	0.03		RTOR	0.12	
RTC	0.18		RTC	0.19		RTC	0.12		RTC	0.29	
Addl ICU	-0.15		Addl ICU	-0.08		Addl ICU	-0.02		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.449											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.50											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2017 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	24	5076	1700	1700	3391	9
77	3	91	0	0	0	1	209	52	95	368	1
0.05	0.00	0.05	0.00	0.00	0.00	0.04	0.04	0.03	0.06	0.11	0.11
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	-0.05		RTOG	0.09		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.05		RTOR	0.05	
RTC	0.13		RTC	-0.01		RTC	0.13		RTC	0.14	
Addl ICU	-0.07		Addl ICU	0.01		Addl ICU	-0.10		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.195											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.25											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2017 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
534	826	340	209	1187	304	181	963	557	372	1202	127
11	17	7	22	125	32	12	64	37	47	152	16
0.02	0.02	0.02	0.11	0.11	0.11	0.07	0.07	0.07	0.13	0.13	0.13
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.11		V/C	0.07		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.11		RTOG	0.07		RTOG	0.13	
RTOR	0.13		RTOR	0.07		RTOR	0.02		RTOR	0.11	
RTC	0.12		RTC	0.16		RTC	0.08		RTC	0.21	
Addl ICU	-0.09		Addl ICU	-0.05		Addl ICU	-0.02		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.319											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – NO PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.5	0.328	A	2.5	0.328	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.687	B	xxxxx	0.687	+ 0.000 V/C
#559 "O" St & Trabuco Rd	B	xxxxx	0.629	B	xxxxx	0.629	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.325	A	xxxxx	0.325	+ 0.000 V/C
#605 "O" St & "LQ" St	A	3.0	0.356	A	3.0	0.356	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.2	0.036	B	10.2	0.036	+ 0.000 D/V
#615 "C" St & "LQ" St	C	15.1	0.086	C	15.1	0.086	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.2	0.266	A	4.2	0.266	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.577	A	xxxxx	0.577	+ 0.000 V/C
#629 "LY" St & "LN" St	B	11.0	0.099	B	11.0	0.099	+ 0.000 D/V

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	12		25		13	8		24		8	9		39		12	
ApproachDel:	10.1				10.2				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=260]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=40]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=260]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	12		25	13	8		24	8	9		39	12	24		70	16			
Major Street Volume:	170																		
Minor Approach Volume:	50																		
Minor Approach Volume Threshold:	692																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	22		12		26	32		32		26	11		226		24	34		267		17
ApproachDel:	13.6				15.1				xxxxxx				xxxxxx							

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=729]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=90]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=729]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	22		12	26	32		32	26	11		226	24	34		267	17
Major Street Volume:	579															
Minor Approach Volume:	90															
Minor Approach Volume Threshold:	473															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	
FinalVolume:	6		11		13	15		68		7	6		63		32	
ApproachDel:	xxxxxx				xxxxxx				10.1				11.0			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=371]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=150]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=371]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	6		11	13	15		68	7	6		63	32	70		67	13			
Major Street Volume:	120																		
Minor Approach Volume:	150																		
Minor Approach Volume Threshold:	785																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Level Of Service Computation Report
 FHWA Roundabout Method (Base Volume Alternative)

Intersection #557 "O" St & "C" St

Average Delay (sec/veh): 2.5 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	2			2			1			1		

Volume Module:

Base Vol:	16	106	2	29	518	228	54	9	18	14	56	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	106	2	29	518	228	54	9	18	14	56	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	106	2	29	518	228	54	9	18	14	56	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	106	2	29	518	228	54	9	18	14	56	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	106	2	29	518	228	54	9	18	14	56	41

PCE Module:

AutoPCE:	16	106	2	29	518	228	54	9	18	14	56	41
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	16	106	2	29	518	228	54	9	18	14	56	41

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	92	86	561	176
MaxVolume:	2358	2362	897	1105
PedVolume:	0	0	0	0
AdjMaxVol:	2358	2362	897	1105
ApproachVol:	124	775	81	111
ApproachV/C:	0.05	0.33	0.09	0.10
ApproachDel:	1.6	2.3	4.4	3.6
ApproachLOS:	A	A	A	A
Queue:	0.2	1.5	0.3	0.3

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 36 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	127	95	50	177	454	445	100	2192	273	123	1858	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	95	50	177	454	445	100	2192	273	123	1858	45
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	95	50	177	454	0	100	2192	273	123	1858	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	95	50	177	454	0	100	2192	273	123	1858	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	95	50	177	454	0	100	2192	273	123	1858	45

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.31	0.69	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2228	1172	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.10	0.13	0.00	0.03	0.43	0.16	0.04	0.36	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.629
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	91	57	3	18	366	662	617	259	523	31	517	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	57	3	18	366	662	617	259	523	31	517	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	57	3	18	366	662	617	259	523	31	517	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	57	3	18	366	662	617	259	523	31	517	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	91	57	3	18	366	662	617	259	523	31	517	36
OvlAdjVol:						354			478			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.90	0.10	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	3400	3230	170	1700	3400	1700	3400	3400	1700	1700	3179	221

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.01	0.11	0.39	0.18	0.08	0.31	0.02	0.16	0.16
OvlAdjV/S:						0.21			0.28			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.325

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 18 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	46	100	23	12	585	21	2	4	24	91	33	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	100	23	12	585	21	2	4	24	91	33	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	100	23	12	585	21	2	4	24	91	33	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	100	23	12	585	21	2	4	24	91	33	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	100	23	12	585	21	2	4	24	91	33	8

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.93	0.07	1.00	0.14	0.86	1.00	0.80	0.20
Final Sat.:	1700	2764	636	1700	3282	118	1700	243	1457	1700	1368	332

Capacity Analysis Module:

Vol/Sat:	0.03	0.04	0.04	0.01	0.18	0.18	0.00	0.02	0.02	0.05	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.0      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      154 165 187 46 667 41 4 37 59 174 96 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 154 165 187 46 667 41 4 37 59 174 96 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 154 165 187 46 667 41 4 37 59 174 96 11
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 154 165 187 46 667 41 4 37 59 174 96 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 154 165 187 46 667 41 4 37 59 174 96 11
-----|-----|-----|-----|
PCE Module:
AutoPCE: 154 165 187 46 667 41 4 37 59 174 96 11
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 154 165 187 46 667 41 4 37 59 174 96 11
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume: 87 424 887 323
MaxVolume: 2361 2119 721 1026
PedVolume: 0 0 0 0
AdjMaxVol: 2361 2119 721 1026
ApproachVol: 506 754 100 281
ApproachV/C: 0.21 0.36 0.14 0.27
ApproachDel: 1.9 2.6 5.8 4.8
ApproachLOS: A A A A
Queue: 0.8 1.6 0.5 1.1

```


IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: B[10.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	25	13	8	24	8	9	39	12	24	70	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	25	13	8	24	8	9	39	12	24	70	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	25	13	8	24	8	9	39	12	24	70	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	25	13	8	24	8	9	39	12	24	70	16

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	205	197	45	208	195	78	86	xxxx	xxxxxx	51	xxxx	xxxxxx
Potent Cap.:	757	702	1031	754	704	988	1523	xxxx	xxxxxx	1568	xxxx	xxxxxx
Move Cap.:	719	687	1031	712	689	988	1523	xxxx	xxxxxx	1568	xxxx	xxxxxx
Volume/Cap:	0.02	0.04	0.01	0.01	0.03	0.01	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	761	xxxxxx	xxxx	738	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.2	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.1	xxxxxx	xxxxxx	10.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.1			10.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: C[15.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	22	12	26	32	32	26	11	226	24	34	267	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	12	26	32	32	26	11	226	24	34	267	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	12	26	32	32	26	11	226	24	34	267	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	12	26	32	32	26	11	226	24	34	267	17

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	633	612	238	623	616	276	284	xxxx	xxxxx	250	xxxx	xxxxx
Potent Cap.:	396	411	806	402	409	768	1290	xxxx	xxxxx	1327	xxxx	xxxxx
Move Cap.:	349	397	806	370	395	768	1290	xxxx	xxxxx	1327	xxxx	xxxxx
Volume/Cap:	0.06	0.03	0.03	0.09	0.08	0.03	0.01	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	478	xxxxx	xxxx	447	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.6	xxxxx	xxxxx	15.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	C	*	*	*	*	*	*	*
ApproachDel:	13.6			15.1			xxxxxxx			xxxxxxx		
ApproachLOS:	B			C			*			*		

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

IUSD K-8 School
 Year 2030 No Project
 2011 Approved Project

Level Of Service Computation Report
 FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.2 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	20	8	23	46	75	40	10	241	43	51	250	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	8	23	46	75	40	10	241	43	51	250	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	8	23	46	75	40	10	241	43	51	250	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	8	23	46	75	40	10	241	43	51	250	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	8	23	46	75	40	10	241	43	51	250	12

PCE Module:

AutoPCE:	20	8	23	46	75	40	10	241	43	51	250	12
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	20	8	23	46	75	40	10	241	43	51	250	12

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	297	321	172	38
MaxVolume:	1040	1027	1107	1179
PedVolume:	0	0	0	0
AdjMaxVol:	1040	1027	1107	1179
ApproachVol:	51	161	294	313
ApproachV/C:	0.05	0.16	0.27	0.27
ApproachDel:	3.6	4.2	4.4	4.2
ApproachLOS:	A	A	A	A
Queue:	0.2	0.6	1.1	1.1

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	69	0	61	0	0	0	0	2319	56	54	1891	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	61	0	0	0	0	2319	56	54	1891	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	69	0	61	0	0	0	0	2319	56	54	1891	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	61	0	0	0	0	2319	56	54	1891	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	0	61	0	0	0	0	2319	56	54	1891	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.03	0.03	0.37	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: B[11.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	6	11	13	15	68	7	6	63	32	70	67	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	11	13	15	68	7	6	63	32	70	67	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	11	13	15	68	7	6	63	32	70	67	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	11	13	15	68	7	6	63	32	70	67	13

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	75	xxxx	xxxxxx	24	xxxx	xxxxxx	171	138	72	179	135	18
Potent Cap.:	1537	xxxx	xxxxxx	1604	xxxx	xxxxxx	797	757	996	788	760	1067
Move Cap.:	1537	xxxx	xxxxxx	1604	xxxx	xxxxxx	726	747	996	706	750	1067
Volume/Cap:	0.00	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.08	0.03	0.10	0.09	0.01

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	810	xxxxxx	xxxx	748	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.1	xxxxxx	xxxxxx	11.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.1				11.0	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
446	2954	47	180	3220	779	1457	243	567	340	1360	359
16	106	2	29	518	228	54	9	18	14	56	41
0.04	0.04	0.04	0.16	0.19	0.19	0.04	0.03	0.03	0.04	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.19		V/C	0.04		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.19		RTOG	0.05		RTOG	0.06	
RTOR	0.06		RTOR	0.04		RTOR	0.04		RTOR	0.19	
RTC	0.11		RTC	0.21		RTC	0.08		RTC	0.20	
Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.14	
0.00			0.00			0.00			0.00		
Initial ICU											
0.316											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
127	95	50	177	454	445	100	2192	273	123	1858	45
0.04	0.03	0.03	0.10	0.13	0.00	0.03	0.43	0.16	0.04	0.36	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.13		V/C	0.43		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.13		RTOG	0.43		RTOG	0.44	
RTOR	0.04		RTOR	0.10		RTOR	0.04		RTOR	0.14	
RTC	0.09		RTC	0.21		RTC	0.46		RTC	0.54	
Addl ICU	-0.06		Addl ICU	-0.21		Addl ICU	-0.30		Addl ICU	-0.52	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.637											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.69											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Year 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3230	170	1700	3400	1700	3400	3400	1700	1700	3179	221
91	57	3	18	366	662	617	259	523	31	517	36
0.03	0.02	0.02	0.01	0.11	0.39	0.18	0.08	0.31	0.02	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.18		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.12		RTOG	0.11		RTOG	0.33		RTOG	0.16	
RTOR	0.27		RTOR	0.18		RTOR	0.03		RTOR	0.12	
RTC	0.32		RTC	0.24		RTC	0.35		RTC	0.25	
Addl ICU	-0.31		Addl ICU	0.15		Addl ICU	-0.04		Addl ICU	-0.09	
0.00			0.15			0.00			0.00		
											Initial ICU
											0.479
											Right Turn Adjustment
											0.15
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.67

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2764	636	1700	3282	118	1700	243	1457	1700	1368	332
46	100	23	12	585	21	2	4	24	91	33	8
0.03	0.04	0.04	0.01	0.18	0.18	0.00	0.02	0.02	0.05	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.18		V/C	0.02		V/C	0.05	
Right Turn Capacity Adjustment											
RTOG	0.20		RTOG	0.18		RTOG	0.02		RTOG	0.07	
RTOR	0.05		RTOR	0.05		RTOR	0.03		RTOR	0.17	
RTC	0.24		RTC	0.21		RTC	0.04		RTC	0.20	
Addl ICU	-0.20		Addl ICU	-0.03		Addl ICU	-0.02		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
									Initial ICU		0.275
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
TOTAL CAPACITY UTILIZATION									0.33		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1641	1759	1355	219	3181	148	166	1534	522	1096	604	87
154	165	187	46	667	41	4	37	59	174	96	11
0.09	0.11	0.11	0.21	0.21	0.21	0.02	0.05	0.05	0.16	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.09		V/C	0.21		V/C	0.05		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.21		RTOG	0.05		RTOG	0.18	
RTOR	0.16		RTOR	0.05		RTOR	0.09		RTOR	0.19	
RTC	0.22		RTC	0.25		RTC	0.12		RTC	0.33	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.07		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.512											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.56											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
408	850	442	340	1020	340	255	1105	340	371	1082	247
12	25	13	8	24	8	9	39	12	24	70	16
0.03	0.03	0.03	0.02	0.02	0.02	0.04	0.04	0.04	0.06	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.02		V/C	0.04		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.02		RTOG	0.04		RTOG	0.06	
RTOR	0.06		RTOR	0.04		RTOR	0.03		RTOR	0.02	
RTC	0.08		RTC	0.05		RTC	0.06		RTC	0.08	
Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.02		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.153
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.20

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
623	340	737	604	604	491	1700	1537	163	1700	1598	102
22	12	26	32	32	26	11	226	24	34	267	17
0.04	0.04	0.04	0.05	0.05	0.05	0.01	0.15	0.15	0.02	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.05		V/C	0.01		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.05		RTOG	0.15		RTOG	0.17	
RTOR	0.03		RTOR	0.01		RTOR	0.04		RTOR	0.05	
RTC	0.06		RTC	0.06		RTC	0.18		RTC	0.21	
Addl ICU	-0.02		Addl ICU	0.00		Addl ICU	-0.03		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.262											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.31											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1214	486	631	646	1054	296	68	1632	129	288	1412	39
20	8	23	46	75	40	10	241	43	51	250	12
0.02	0.03	0.03	0.07	0.09	0.09	0.15	0.16	0.16	0.18	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.09		V/C	0.16		V/C	0.18	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.09		RTOG	0.16		RTOG	0.19	
RTOR	0.18		RTOR	0.16		RTOR	0.02		RTOR	0.07	
RTC	0.16		RTC	0.20		RTC	0.17		RTC	0.25	
Addl ICU	-0.14		Addl ICU	-0.12		Addl ICU	-0.01		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.440											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.49											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
69	0	61	0	0	0	0	2319	56	54	1891	0
0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.03	0.03	0.37	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.45		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.45		RTOG	0.49	
RTOR	0.03		RTOR	0.12		RTOR	0.04		RTOR	0.04	
RTC	0.06		RTC	0.05		RTC	0.49		RTC	0.52	
Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.45		Addl ICU	-0.52	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.527											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.58											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
340	623	737	283	1284	132	101	1060	539	793	759	147
6	11	13	15	68	7	6	63	32	70	67	13
0.02	0.02	0.02	0.05	0.05	0.05	0.06	0.06	0.06	0.09	0.09	0.09
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.05		V/C	0.06		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.05		RTOG	0.06		RTOG	0.09	
RTOR	0.09		RTOR	0.06		RTOR	0.02		RTOR	0.05	
RTC	0.08		RTC	0.10		RTC	0.07		RTC	0.13	
Addl ICU	-0.07		Addl ICU	-0.04		Addl ICU	-0.01		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.218
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.27

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – NO PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.4	0.302	A	2.4	0.302	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.649	B	xxxxx	0.649	+ 0.000 V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.798	C	xxxxx	0.798	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.376	A	xxxxx	0.376	+ 0.000 V/C
#605 "O" St & "LQ" St	A	3.3	0.434	A	3.3	0.434	+ 0.000 V/C
#613 "C" St & "LN" St	B	11.2	0.040	B	11.2	0.040	+ 0.000 D/V
#615 "C" St & "LQ" St	C	17.4	0.137	C	17.4	0.137	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.6	0.380	A	4.6	0.380	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.536	A	xxxxx	0.536	+ 0.000 V/C
#629 "LY" St & "LN" St	B	12.5	0.189	B	12.5	0.189	+ 0.000 D/V

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Intersection	Signal Warrant Summary Report			
	Base Met		Future Met	
	[Del / Vol]		[Del / Vol]	
#613 "C" St & "LN" St	No	/ No	???	/ ???
#615 "C" St & "LQ" St	No	/ No	???	/ ???
#629 "LY" St & "LN" St	No	/ No	???	/ ???

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	1!	0
FinalVolume:	12		22		16	6		21		4	6		38		16	63
ApproachDel:	10.7				11.2				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=330]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=330]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	0
FinalVolume:	12		22	16	6		21	4	6		38	16	63		104	22	
Major Street Volume:	249																
Minor Approach Volume:	50																
Minor Approach Volume Threshold:	590																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	22		10		18	37		49		44	11		174		26	44
ApproachDel:	15.4				17.4				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=818]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=130]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=818]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	22		10	18	37		49	44	11		174	26	44		364	19
Major Street Volume:	638															
Minor Approach Volume:	130															
Minor Approach Volume Threshold:	440															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	9	9	11	17	79	14	6	62	33	88	137	15
ApproachDel:	xxxxxx			xxxxxx			10.3			12.5		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=480]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=240]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=480]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	9		9	11		17		79	14		6		62	33		88		137	15	
Major Street Volume:					139															
Minor Approach Volume:					240															
Minor Approach Volume Threshold:					746															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      36 163      5 24 503 178      43 11 26      20 66 34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 36 163      5 24 503 178      43 11 26      20 66 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 36 163      5 24 503 178      43 11 26      20 66 34
Reduct Vol: 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol: 36 163      5 24 503 178      43 11 26      20 66 34
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 36 163      5 24 503 178      43 11 26      20 66 34
-----|-----|-----|-----|
PCE Module:
AutoPCE:      36 163      5 24 503 178      43 11 26      20 66 34
TruckPCE:      0 0      0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0      0 0 0      0 0 0
AdjVolume:      36 163      5 24 503 178      43 11 26      20 66 34
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      78      122      547      242
MaxVolume:      2368      2336      905      1069
PedVolume:      0      0      0      0
AdjMaxVol:      2368      2336      905      1069
ApproachVol:      204      705      80      120
ApproachV/C:      0.09      0.30      0.09      0.11
ApproachDel:      1.7      2.2      4.4      3.8
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      0.4

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

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

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	119	115	65	216	436	390	81	1918	188	146	2001	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	115	65	216	436	390	81	1918	188	146	2001	63
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	119	115	65	216	436	0	81	1918	188	146	2001	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	115	65	216	436	0	81	1918	188	146	2001	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	119	115	65	216	436	0	81	1918	188	146	2001	63

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.28	0.72	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2172	1228	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	150	68	3	18	346	905	634	239	540	24	556	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	150	68	3	18	346	905	634	239	540	24	556	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	68	3	18	346	905	634	239	540	24	556	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	68	3	18	346	905	634	239	540	24	556	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	150	68	3	18	346	905	634	239	540	24	556	28
OvlAdjVol:						588			465			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.92	0.08	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	3400	3256	144	1700	3400	1700	3400	3400	1700	1700	3237	163

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.01	0.10	0.53	0.19	0.07	0.32	0.01	0.17	0.17
OvlAdjV/S:						0.35			0.27			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.376
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	18	160	35	11	607	8	7	14	79	135	13	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	160	35	11	607	8	7	14	79	135	13	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	160	35	11	607	8	7	14	79	135	13	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	160	35	11	607	8	7	14	79	135	13	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	160	35	11	607	8	7	14	79	135	13	12

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.97	0.03	1.00	0.15	0.85	1.00	0.52	0.48
Final Sat.:	1700	2790	610	1700	3356	44	1700	256	1444	1700	884	816

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.18	0.18	0.00	0.05	0.05	0.08	0.01	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.3      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      59  202  120      60  833  33      3  19  27      259  88  35
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  59  202  120      60  833  33      3  19  27      259  88  35
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  59  202  120      60  833  33      3  19  27      259  88  35
Reduct Vol:   0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:  59  202  120      60  833  33      3  19  27      259  88  35
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  59  202  120      60  833  33      3  19  27      259  88  35
-----|-----|-----|-----|
PCE Module:
AutoPCE:      59  202  120      60  833  33      3  19  27      259  88  35
TruckPCE:      0   0   0       0   0   0       0   0   0       0   0   0
ComboPCE:      0   0   0       0   0   0       0   0   0       0   0   0
BicyclePCE:    0   0   0       0   0   0       0   0   0       0   0   0
AdjVolume:    59  202  120      60  833  33      3  19  27      259  88  35
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      82      406      1152      264
MaxVolume:      2365      2132      578      1057
PedVolume:        0        0        0        0
AdjMaxVol:      2365      2132      578      1057
ApproachVol:     381      926      49      382
ApproachV/C:     0.16      0.43      0.08      0.36
ApproachDel:     1.8      3.0      6.8      5.3
ApproachLOS:      A      A      A      A
Queue:          0.6      2.3      0.3      1.7

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: B[11.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	22	16	6	21	4	6	38	16	63	104	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	22	16	6	21	4	6	38	16	63	104	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	22	16	6	21	4	6	38	16	63	104	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	22	16	6	21	4	6	38	16	63	104	22

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	312	310	46	318	307	115	126	xxxx	xxxxxx	54	xxxx	xxxxxx
Potent Cap.:	645	608	1029	639	610	943	1473	xxxx	xxxxxx	1564	xxxx	xxxxxx
Move Cap.:	603	580	1029	589	582	943	1473	xxxx	xxxxxx	1564	xxxx	xxxxxx
Volume/Cap:	0.02	0.04	0.02	0.01	0.04	0.00	0.00	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	681	xxxxxx	xxxx	614	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.2	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.7	xxxxxx	xxxxxx	11.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.7			11.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[17.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	22	10	18	37	49	44	11	174	26	44	364	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	10	18	37	49	44	11	174	26	44	364	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	10	18	37	49	44	11	174	26	44	364	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	10	18	37	49	44	11	174	26	44	364	19

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	717	680	187	685	684	374	383	xxxx	xxxxx	200	xxxx	xxxxx
Potent Cap.:	347	376	860	365	374	677	1187	xxxx	xxxxx	1384	xxxx	xxxxx
Move Cap.:	282	360	860	339	359	677	1187	xxxx	xxxxx	1384	xxxx	xxxxx
Volume/Cap:	0.08	0.03	0.02	0.11	0.14	0.06	0.01	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	395	xxxxx	xxxx	418	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.4	xxxxx	xxxxx	17.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.4			17.4			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.6      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      22      8      21      48 101      51      8 191      42      77 357      14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22      8      21      48 101      51      8 191      42      77 357      14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 22      8      21      48 101      51      8 191      42      77 357      14
Reduct Vol: 0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol: 22      8      21      48 101      51      8 191      42      77 357      14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 22      8      21      48 101      51      8 191      42      77 357      14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      22      8      21      48 101      51      8 191      42      77 357      14
TruckPCE:      0      0      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0      0      0
AdjVolume: 22      8      21      48 101      51      8 191      42      77 357      14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      247      456      226      38
MaxVolume:      1067      954      1078      1179
PedVolume:      0      0      0      0
AdjMaxVol:      1067      954      1078      1179
ApproachVol:      51      200      241      448
ApproachV/C:      0.05      0.21      0.22      0.38
ApproachDel:      3.5      4.8      4.3      4.9
ApproachLOS:      A      A      A      A
Queue:      0.2      0.8      0.9      1.8

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	62	0	58	0	0	0	0	2112	49	61	2098	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	0	58	0	0	0	0	2112	49	61	2098	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	0	58	0	0	0	0	2112	49	61	2098	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	0	58	0	0	0	0	2112	49	61	2098	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	0	58	0	0	0	0	2112	49	61	2098	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.41	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.8 Worst Case Level Of Service: B[12.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	9	9	11	17	79	14	6	62	33	88	137	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	9	11	17	79	14	6	62	33	88	137	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	9	11	17	79	14	6	62	33	88	137	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	9	11	17	79	14	6	62	33	88	137	15

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	93	xxxx	xxxxxx	20	xxxx	xxxxxx	229	158	86	200	160	15
Potent Cap.:	1514	xxxx	xxxxxx	1609	xxxx	xxxxxx	731	738	978	763	736	1071
Move Cap.:	1514	xxxx	xxxxxx	1609	xxxx	xxxxxx	608	726	978	680	724	1071
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.09	0.03	0.13	0.19	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	783	xxxxxx	xxxx	722	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.5	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	12.5	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.3				12.5	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
615	2785	76	155	3245	667	1354	346	597	395	1305	289
36	163	5	24	503	178	43	11	26	20	66	34
0.06	0.06	0.06	0.16	0.17	0.17	0.03	0.04	0.04	0.05	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.17		V/C	0.03		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.17		RTOG	0.04		RTOG	0.06	
RTOR	0.06		RTOR	0.03		RTOR	0.06		RTOR	0.17	
RTC	0.12		RTC	0.20		RTC	0.09		RTC	0.19	
Addl ICU	-0.06		Addl ICU	-0.02		Addl ICU	-0.05		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.327											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:		Year 2030 (2012 Modified Project Option 1) No Project							Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
119	115	65	216	436	390	81	1918	188	146	2001	63
0.04	0.03	0.04	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.13		V/C	0.38		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.13		RTOG	0.38		RTOG	0.40	
RTOR	0.04		RTOR	0.03		RTOR	0.04		RTOR	0.13	
RTC	0.07		RTC	0.15		RTC	0.40		RTC	0.49	
Addl ICU	-0.03		Addl ICU	-0.15		Addl ICU	-0.29		Addl ICU	-0.46	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.582
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.63

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3256	144	1700	3400	1700	3400	3400	1700	1700	3237	163
150	68	3	18	346	905	634	239	540	24	556	28
0.04	0.02	0.02	0.01	0.10	0.53	0.19	0.07	0.32	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.19		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.14		RTOG	0.10		RTOG	0.34		RTOG	0.17	
RTOR	0.29		RTOR	0.19		RTOR	0.04		RTOR	0.13	
RTC	0.35		RTC	0.24		RTC	0.38		RTC	0.27	
Addl ICU	-0.33		Addl ICU	0.29		Addl ICU	-0.06		Addl ICU	-0.09	
0.00			0.29			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.504
											Right Turn Adjustment
											0.29
											Clearance Interval
											0.05
											TOTAL CAPACITY UTILIZATION
											0.84

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2790	610	1700	3356	44	1700	256	1444	1700	884	816
18	160	35	11	607	8	7	14	79	135	13	12
0.01	0.06	0.06	0.01	0.18	0.18	0.00	0.05	0.05	0.08	0.01	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.18		V/C	0.05		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.19		RTOG	0.18		RTOG	0.05		RTOG	0.13	
RTOR	0.08		RTOR	0.12		RTOR	0.01		RTOR	0.13	
RTC	0.24		RTC	0.27		RTC	0.06		RTC	0.23	
Addl ICU	-0.19		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.22	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.326											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
769	2631	950	228	3172	97	232	1468	499	1269	431	242
59	202	120	60	833	33	3	19	27	259	88	35
0.08	0.09	0.09	0.26	0.26	0.26	0.01	0.02	0.02	0.20	0.18	0.18
Critical Movements											
Direction		NBL	Direction		SBT	Direction		EBT	Direction		WBL
V/C		0.08	V/C		0.26	V/C		0.02	V/C		0.20
Right Turn Capacity Adjustment											
RTOG		0.08	RTOG		0.26	RTOG		0.02	RTOG		0.21
RTOR		0.20	RTOR		0.04	RTOR		0.08	RTOR		0.25
RTC		0.23	RTC		0.30	RTC		0.08	RTC		0.40
Addl ICU		-0.14	Addl ICU		-0.03	Addl ICU		-0.06	Addl ICU		-0.22
0.00			0.00			0.00			0.00		
Initial ICU											
0.569											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.62											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
408	748	544	329	1152	219	170	1077	453	567	935	198
12	22	16	6	21	4	6	38	16	63	104	22
0.03	0.03	0.03	0.02	0.02	0.02	0.04	0.04	0.04	0.11	0.11	0.11
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.02		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.02		RTOG	0.04		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.03		RTOR	0.02	
RTC	0.11		RTC	0.04		RTC	0.06		RTC	0.12	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.02		Addl ICU	-0.01	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.194
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.24

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
748	340	612	484	641	575	1700	1479	221	1700	1616	84
22	10	18	37	49	44	11	174	26	44	364	19
0.03	0.03	0.03	0.08	0.08	0.08	0.01	0.12	0.12	0.03	0.23	0.23
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.08		V/C	0.01		V/C	0.23	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.08		RTOG	0.21		RTOG	0.23	
RTOR	0.11		RTOR	0.01		RTOR	0.03		RTOR	0.08	
RTC	0.12		RTC	0.08		RTC	0.23		RTC	0.28	
Addl ICU	-0.09		Addl ICU	0.00		Addl ICU	-0.11		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.338											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.39											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1247	453	616	548	1152	285	68	1632	153	302	1398	32
22	8	21	48	101	51	8	191	42	77	357	14
0.02	0.03	0.03	0.09	0.11	0.11	0.12	0.13	0.13	0.26	0.26	0.26
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.11		V/C	0.13		V/C	0.26	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.11		RTOG	0.13		RTOG	0.27	
RTOR	0.26		RTOR	0.13		RTOR	0.02		RTOR	0.10	
RTC	0.23		RTC	0.20		RTC	0.14		RTC	0.34	
Addl ICU	-0.20		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.509											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.56											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
62	0	58	0	0	0	0	2112	49	61	2098	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.41	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.41		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.41		RTOG	0.45	
RTOR	0.04		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.06		RTC	-0.01		RTC	0.44		RTC	0.48	
Addl ICU	-0.03		Addl ICU	0.01		Addl ICU	-0.41		Addl ICU	-0.48	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.486
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.54

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
528	528	645	263	1221	216	101	1044	555	623	970	106
9	9	11	17	79	14	6	62	33	88	137	15
0.02	0.02	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.14	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.06		V/C	0.06		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.06		RTOG	0.06		RTOG	0.14	
RTOR	0.14		RTOR	0.06		RTOR	0.02		RTOR	0.06	
RTC	0.12		RTC	0.11		RTC	0.07		RTC	0.19	
Addl ICU	-0.11		Addl ICU	-0.04		Addl ICU	-0.01		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.282
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.33

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – NO PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.4	0.298	A	2.4	0.298	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.652	B	xxxxx	0.652	+ 0.000 V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.795	C	xxxxx	0.795	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.369	A	xxxxx	0.369	+ 0.000 V/C
#605 "O" St & "LQ" St	A	3.3	0.423	A	3.3	0.423	+ 0.000 V/C
#613 "C" St & "LN" St	B	11.2	0.055	B	11.2	0.055	+ 0.000 D/V
#615 "C" St & "LQ" St	C	20.0	0.211	C	20.0	0.211	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.7	0.380	A	4.7	0.380	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.538	A	xxxxx	0.538	+ 0.000 V/C
#629 "LY" St & "LN" St	B	12.4	0.177	B	12.4	0.177	+ 0.000 D/V

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	1!	0
FinalVolume:	15		29		17	9		33		8	8		44		18	49
ApproachDel:	10.9				11.2				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=61]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=360]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=360]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	15		29	17	9		33	8		8		44	18		49		107	23	
Major Street Volume:					249														
Minor Approach Volume:					61														
Minor Approach Volume Threshold:					590														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	28		17		35	37		73		30	9		149		33	84
ApproachDel:	15.9				20.0				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=80]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=829]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=140]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=829]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	
FinalVolume:	28		17		35	37		73		30	9		149		33	
Major Street Volume:	609															
Minor Approach Volume:	140															
Minor Approach Volume Threshold:	456															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	9	10	12	16	83	13	6	62	34	92	128	14
ApproachDel:	xxxxxx			xxxxxx			10.3			12.4		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=102]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=479]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=234]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=479]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	9		10	12	16		83	13	6		62	34	92		128	14			
Major Street Volume:					143														
Minor Approach Volume:					234														
Minor Approach Volume Threshold:					738														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      33  163      8      36  478  182      42  16  23      20  66  35
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  33  163      8      36  478  182      42  16  23      20  66  35
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  33  163      8      36  478  182      42  16  23      20  66  35
Reduct Vol:   0   0      0      0   0      0      0   0      0      0   0      0
Reduced Vol:  33  163      8      36  478  182      42  16  23      20  66  35
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume: 33  163      8      36  478  182      42  16  23      20  66  35
-----|-----|-----|-----|
PCE Module:
AutoPCE:      33  163      8      36  478  182      42  16  23      20  66  35
TruckPCE:      0   0      0      0   0      0      0   0      0      0   0      0
ComboPCE:      0   0      0      0   0      0      0   0      0      0   0      0
BicyclePCE:    0   0      0      0   0      0      0   0      0      0   0      0
AdjVolume:    33  163      8      36  478  182      42  16  23      20  66  35
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      94      119      534      238
MaxVolume:      2356      2338      912      1071
PedVolume:        0        0        0        0
AdjMaxVol:      2356      2338      912      1071
ApproachVol:      204      696      81      121
ApproachV/C:      0.09      0.30      0.09      0.11
ApproachDel:      1.7      2.2      4.3      3.8
ApproachLOS:      A      A      A      A
Queue:          0.3      1.3      0.3      0.4

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.652
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	119	116	66	219	432	393	82	1925	185	142	1988	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	116	66	219	432	393	82	1925	185	142	1988	63
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	119	116	66	219	432	0	82	1925	185	142	1988	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	116	66	219	432	0	82	1925	185	142	1988	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	119	116	66	219	432	0	82	1925	185	142	1988	63

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.27	0.73	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2167	1233	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	144	53	4	27	337	901	524	369	530	23	565	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	144	53	4	27	337	901	524	369	530	23	565	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	144	53	4	27	337	901	524	369	530	23	565	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	53	4	27	337	901	524	369	530	23	565	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	144	53	4	27	337	901	524	369	530	23	565	22
OvlAdjVol:						639			458			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.86	0.14	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3400	3161	239	1700	3400	1700	3400	3400	1700	1700	3273	127

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.02	0.10	0.53	0.15	0.11	0.31	0.01	0.17	0.17
OvlAdjV/S:						0.38			0.27			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.369
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 19 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:

Base Vol:	18	159	35	10	568	8	7	15	78	143	14	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	159	35	10	568	8	7	15	78	143	14	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	159	35	10	568	8	7	15	78	143	14	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	159	35	10	568	8	7	15	78	143	14	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	159	35	10	568	8	7	15	78	143	14	13

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.97	0.03	1.00	0.16	0.84	1.00	0.52	0.48
Final Sat.:	1700	2787	613	1700	3353	47	1700	274	1426	1700	881	819

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.08	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.3      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      66  200  113      50  819  29      3  17  31  270  85  27
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  66  200  113      50  819  29      3  17  31  270  85  27
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  66  200  113      50  819  29      3  17  31  270  85  27
Reduct Vol:   0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:  66  200  113      50  819  29      3  17  31  270  85  27
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  66  200  113      50  819  29      3  17  31  270  85  27
-----|-----|-----|-----|
PCE Module:
AutoPCE:      66  200  113      50  819  29      3  17  31  270  85  27
TruckPCE:      0   0   0       0   0   0       0   0   0       0   0   0
ComboPCE:      0   0   0       0   0   0       0   0   0       0   0   0
BicyclePCE:    0   0   0       0   0   0       0   0   0       0   0   0
AdjVolume:    66  200  113      50  819  29      3  17  31  270  85  27
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      70      421      1139      269
MaxVolume:     2374     2121     585     1055
PedVolume:        0        0        0        0
AdjMaxVol:     2374     2121     585     1055
ApproachVol:     379     898     51     382
ApproachV/C:    0.16    0.42    0.09    0.36
ApproachDel:     1.8     2.9     6.7     5.3
ApproachLOS:      A      A      A      A
Queue:          0.6     2.2     0.3     1.7

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[11.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	15	29	17	9	33	8	8	44	18	49	107	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	29	17	9	33	8	8	44	18	49	107	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	29	17	9	33	8	8	44	18	49	107	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	29	17	9	33	8	8	44	18	49	107	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	306	297	53	309	295	119	130	xxxx	xxxxxx	62	xxxx	xxxxxx
Potent Cap.:	650	618	1020	648	620	939	1468	xxxx	xxxxxx	1554	xxxx	xxxxxx
Move Cap.:	600	595	1020	596	597	939	1468	xxxx	xxxxxx	1554	xxxx	xxxxxx
Volume/Cap:	0.03	0.05	0.02	0.02	0.06	0.01	0.01	xxxx	xxxxxx	0.03	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	675	xxxxxx	xxxx	633	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.9	xxxxxx	xxxxxx	11.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.9			11.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: C[20.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	17	35	37	73	30	9	149	33	84	311	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	17	35	37	73	30	9	149	33	84	311	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	17	35	37	73	30	9	149	33	84	311	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	28	17	35	37	73	30	9	149	33	84	311	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	726	686	166	700	691	323	334	xxxx	xxxxx	182	xxxx	xxxxx
Potent Cap.:	343	373	884	357	371	723	1237	xxxx	xxxxx	1405	xxxx	xxxxx
Move Cap.:	262	348	884	313	346	723	1237	xxxx	xxxxx	1405	xxxx	xxxxx
Volume/Cap:	0.11	0.05	0.04	0.12	0.21	0.04	0.01	xxxx	xxxx	0.06	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	409	xxxxx	xxxx	378	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.9	xxxxx	xxxxx	20.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.9			20.0			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.7      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      21      8      21      51 108      50      8 187      46      86 348      14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 21      8      21      51 108      50      8 187      46      86 348      14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 21      8      21      51 108      50      8 187      46      86 348      14
Reduct Vol: 0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol: 21      8      21      51 108      50      8 187      46      86 348      14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 21      8      21      51 108      50      8 187      46      86 348      14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      21      8      21      51 108      50      8 187      46      86 348      14
TruckPCE:      0      0      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0      0      0
AdjVolume: 21      8      21      51 108      50      8 187      46      86 348      14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      246      455      245      37
MaxVolume:      1067      954      1068      1180
PedVolume:      0      0      0      0
AdjMaxVol:      1067      954      1068      1180
ApproachVol:      50      209      241      448
ApproachV/C:      0.05      0.22      0.23      0.38
ApproachDel:      3.5      4.8      4.4      4.9
ApproachLOS:      A      A      A      A
Queue:      0.1      0.8      0.9      1.8

```


IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.538
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	62	0	58	0	0	0	0	2122	49	61	2078	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	0	58	0	0	0	0	2122	49	61	2078	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	0	58	0	0	0	0	2122	49	61	2078	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	0	58	0	0	0	0	2122	49	61	2078	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	0	58	0	0	0	0	2122	49	61	2078	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.42	0.03	0.04	0.41	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.6 Worst Case Level Of Service: B[12.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	9	10	12	16	83	13	6	62	34	92	128	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	10	12	16	83	13	6	62	34	92	128	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	10	12	16	83	13	6	62	34	92	128	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	10	12	16	83	13	6	62	34	92	128	14

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	96	xxxx	xxxxxx	22	xxxx	xxxxxx	227	162	90	204	162	16
Potent Cap.:	1510	xxxx	xxxxxx	1607	xxxx	xxxxxx	733	734	974	759	734	1069
Move Cap.:	1510	xxxx	xxxxxx	1607	xxxx	xxxxxx	618	723	974	676	722	1069
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.09	0.03	0.14	0.18	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	782	xxxxxx	xxxx	717	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	12.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.3				12.4	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
572	2828	119	238	3162	703	1231	469	501	395	1305	295
33	163	8	36	478	182	42	16	23	20	66	35
0.06	0.06	0.06	0.15	0.17	0.17	0.03	0.04	0.04	0.05	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.17		V/C	0.03		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.17		RTOG	0.05		RTOG	0.06	
RTOR	0.06		RTOR	0.03		RTOR	0.06		RTOR	0.17	
RTC	0.12		RTC	0.20		RTC	0.09		RTC	0.19	
Addl ICU	-0.06		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.326											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) No Project						Time Period:		AM			
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
119	116	66	219	432	393	82	1925	185	142	1988	63
0.04	0.03	0.04	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.13		V/C	0.38		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.13		RTOG	0.38		RTOG	0.40	
RTOR	0.04		RTOR	0.03		RTOR	0.04		RTOR	0.13	
RTC	0.06		RTC	0.15		RTC	0.40		RTC	0.49	
Addl ICU	-0.03		Addl ICU	-0.15		Addl ICU	-0.29		Addl ICU	-0.45	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.581											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.63											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3161	239	1700	3400	1700	3400	3400	1700	1700	3273	127
144	53	4	27	337	901	524	369	530	23	565	22
0.04	0.02	0.02	0.02	0.10	0.53	0.15	0.11	0.31	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.15		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.10		RTOG	0.31		RTOG	0.17	
RTOR	0.22		RTOR	0.15		RTOR	0.04		RTOR	0.12	
RTC	0.29		RTC	0.21		RTC	0.35		RTC	0.27	
Addl ICU	-0.27		Addl ICU	0.32		Addl ICU	-0.03		Addl ICU	-0.09	
0.00			0.32			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.468											
Right Turn Adjustment											
0.32											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.83											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2787	613	1700	3353	47	1700	274	1426	1700	881	819
18	159	35	10	568	8	7	15	78	143	14	13
0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.08	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.17		V/C	0.05		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.17		RTOG	0.17		RTOG	0.05		RTOG	0.13	
RTOR	0.08		RTOR	0.12		RTOR	0.01		RTOR	0.12	
RTC	0.24		RTC	0.26		RTC	0.06		RTC	0.23	
Addl ICU	-0.18		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.21	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.319											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	2	0.0	0.5	2	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
844	2556	921	196	3204	87	255	1445	549	1293	407	205
66	200	113	50	819	29	3	17	31	270	85	27
0.08	0.09	0.09	0.26	0.26	0.26	0.01	0.02	0.02	0.21	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.08		V/C	0.26		V/C	0.02		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.26		RTOG	0.02		RTOG	0.22	
RTOR	0.21		RTOR	0.05		RTOR	0.08		RTOR	0.25	
RTC	0.24		RTC	0.30		RTC	0.08		RTC	0.41	
Addl ICU	-0.15		Addl ICU	-0.04		Addl ICU	-0.06		Addl ICU	-0.22	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.569											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.62											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
418	808	474	306	1122	272	194	1069	437	465	1016	218
15	29	17	9	33	8	8	44	18	49	107	23
0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.04	0.04	0.11	0.11	0.11
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.03		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.03		RTOG	0.04		RTOG	0.11	
RTOR	0.11		RTOR	0.04		RTOR	0.04		RTOR	0.03	
RTC	0.11		RTC	0.06		RTC	0.07		RTC	0.13	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.212											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.26											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
595	361	744	449	886	364	1700	1392	308	1700	1583	117
28	17	35	37	73	30	9	149	33	84	311	23
0.05	0.05	0.05	0.08	0.08	0.08	0.01	0.11	0.11	0.05	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.08		V/C	0.01		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.08		RTOG	0.15		RTOG	0.20	
RTOR	0.09		RTOR	0.01		RTOR	0.05		RTOR	0.08	
RTC	0.12		RTC	0.09		RTC	0.19		RTC	0.26	
Addl ICU	-0.07		Addl ICU	0.00		Addl ICU	-0.08		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.331
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.38

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1231	469	616	545	1155	269	70	1630	168	337	1363	33
21	8	21	51	108	50	8	187	46	86	348	14
0.02	0.03	0.03	0.09	0.11	0.11	0.11	0.13	0.13	0.26	0.26	0.26
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.11		V/C	0.13		V/C	0.26	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.11		RTOG	0.13		RTOG	0.27	
RTOR	0.26		RTOR	0.13		RTOR	0.02		RTOR	0.10	
RTC	0.23		RTC	0.21		RTC	0.14		RTC	0.35	
Addl ICU	-0.20		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.513
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.56

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
62	0	58	0	0	0	0	2122	49	61	2078	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.42	0.03	0.04	0.41	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.42		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.42		RTOG	0.45	
RTOR	0.04		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.06		RTC	0.00		RTC	0.44		RTC	0.48	
Addl ICU	-0.03		Addl ICU	0.00		Addl ICU	-0.41		Addl ICU	-0.48	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.488
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.54

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
494	548	658	243	1260	197	100	1033	567	668	930	102
9	10	12	16	83	13	6	62	34	92	128	14
0.02	0.02	0.02	0.07	0.07	0.07	0.06	0.06	0.06	0.14	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.07		V/C	0.06		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.07		RTOG	0.06		RTOG	0.14	
RTOR	0.14		RTOR	0.06		RTOR	0.02		RTOR	0.07	
RTC	0.12		RTC	0.11		RTC	0.07		RTC	0.19	
Addl ICU	-0.10		Addl ICU	-0.05		Addl ICU	-0.01		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.282
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.33

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – WITH PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.1	0.012	A	9.1	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	9.0	0.067	A	9.0	0.067	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.8	0.126	A	7.8	0.126	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.0	0.091	B	10.0	0.091	+ 0.000	D/V
#557 "O" St & "C" St	A	2.5	0.333	A	2.5	0.333	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.697	B	xxxxx	0.697	+ 0.000	V/C
#559 "O" St & Trabuco Rd	B	xxxxx	0.643	B	xxxxx	0.643	+ 0.000	V/C
#603 "O" St & "LN" St	A	xxxxx	0.349	A	xxxxx	0.349	+ 0.000	V/C
#605 "O" St & "LQ" St	A	3.0	0.380	A	3.0	0.380	+ 0.000	V/C
#613 "C" St & "LN" St	B	11.1	0.059	B	11.1	0.059	+ 0.000	D/V
#615 "C" St & "LQ" St	C	17.1	0.128	C	17.1	0.128	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.3	0.289	A	4.3	0.289	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.578	A	xxxxx	0.578	+ 0.000	V/C
#629 "LY" St & "LN" St	B	11.6	0.134	B	11.6	0.134	+ 0.000	D/V

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0
FinalVolume:	0	0	0	0	0	0	0	0	0	10	103	0	0	0	20	89				
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	10	103	0	0	20	89	
Major Street Volume:					222											
Minor Approach Volume:					0											
Minor Approach Volume Threshold:					803											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		31		15	7		156		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.1				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=223]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		31		15	7		156		0	0		0		0	10		0		4
Major Street Volume:	209																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	824																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		33		0	0		97		0	0		0		0	61		0		24
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=85]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=215]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign				
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1
FinalVolume:	0		33	0	0		97	0	0		0	0	0	61		0	24

Major Street Volume: 130
Minor Approach Volume: 85
Minor Approach Volume Threshold: 1251

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	0	50	72	186	61	0	0	0	0	0	
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0	50		72	186	61		0	
Major Street Volume:					369														
Minor Approach Volume:					0														
Minor Approach Volume Threshold:					628														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	60		0		
ApproachDel:	10.0				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=104]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=309]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
Final Volume:	61		0		43	0		0		0	0	60		0	90	
Major Street Volume:					205											
Minor Approach Volume:					104											
Minor Approach Volume Threshold:					791											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	12		35		13	8		24		8	21		69		12	
ApproachDel:	11.1				11.0				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=367]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=40]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=367]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	12		35	13	8		24	8	21		69	12	24		125	16			
Major Street Volume:	267																		
Minor Approach Volume:	60																		
Minor Approach Volume Threshold:	572																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	32		22		26	44		42		26	11		230		24	34
ApproachDel:	15.6				17.1				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=80]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=820]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=112]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=820]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
Final Volume:	32		22	26	44		42	26	11		230	24	34		272	57
Major Street Volume:	628															
Minor Approach Volume:	112															
Minor Approach Volume Threshold:	445															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	6		23		13	15		82		7	6		63		32	
ApproachDel:	xxxxxx				xxxxxx				10.3				11.6			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=427]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=180]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=427]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0
FinalVolume:	6		23	13	15		82	7	6		63	32	70		97	13
Major Street Volume:	146															
Minor Approach Volume:	180															
Minor Approach Volume Threshold:	733															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	103	0	0	20	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	103	0	0	20	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	103	0	0	20	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	103	0	0	20	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	109	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1494	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1494	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	31	15	7	156	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	31	15	7	156	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	31	15	7	156	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	31	15	7	156	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	46	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	131	209	23
Potent Cap.:	xxxxx	xxxxx	xxxxx	1575	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	856	692	1055
Move Cap.:	xxxxx	xxxxx	xxxxx	1575	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	853	689	1055
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	902	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.1	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	33	0	0	97	0	0	0	0	61	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	33	0	0	97	0	0	0	0	61	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	33	0	0	97	0	0	0	0	61	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	33	0	0	97	0	0	0	0	61	0	24

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	82	xxxx	17
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	917	xxxx	1065
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	917	xxxx	1065
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.5	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[7.8]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	0	50	72	186	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	50	72	186	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	50	72	186	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	50	72	186	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	122	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1478	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1478	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.13	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[10.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	60	0	90	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	60	0	90	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	60	0	90	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	60	0	90	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	295	xxxx	60	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	60	xxxx	xxxxxx
Potent Cap.:	700	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Move Cap.:	668	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Volume/Cap:	0.09	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.06	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Control Del:	10.9	xxxx	8.7	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.0		xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	B		*		*		*		*		*	

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

FHWA Roundabout Method (Base Volume Alternative)

Intersection #557 "O" St & "C" St

Average Delay (sec/veh): 2.5 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	2			2			1			1		

Volume Module:

Base Vol:	16	118	2	29	530	228	54	9	18	14	56	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	118	2	29	530	228	54	9	18	14	56	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	118	2	29	530	228	54	9	18	14	56	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	118	2	29	530	228	54	9	18	14	56	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	118	2	29	530	228	54	9	18	14	56	59

PCE Module:

AutoPCE:	16	118	2	29	530	228	54	9	18	14	56	59
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	16	118	2	29	530	228	54	9	18	14	56	59

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	92	86	573	188
MaxVolume:	2358	2362	891	1098
PedVolume:	0	0	0	0
AdjMaxVol:	2358	2362	891	1098
ApproachVol:	136	787	81	129
ApproachV/C:	0.06	0.33	0.09	0.12
ApproachDel:	1.6	2.3	4.4	3.7
ApproachLOS:	A	A	A	A
Queue:	0.2	1.5	0.3	0.4

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.697

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 37 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	155	97	50	177	459	445	100	2192	278	125	1858	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	97	50	177	459	445	100	2192	278	125	1858	45
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	155	97	50	177	459	0	100	2192	278	125	1858	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	97	50	177	459	0	100	2192	278	125	1858	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	155	97	50	177	459	0	100	2192	278	125	1858	45

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.32	0.68	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2244	1156	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.04	0.10	0.14	0.00	0.03	0.43	0.16	0.04	0.36	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	91	72	3	18	386	686	622	259	523	31	517	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	72	3	18	386	686	622	259	523	31	517	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	72	3	18	386	686	622	259	523	31	517	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	72	3	18	386	686	622	259	523	31	517	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	91	72	3	18	386	686	622	259	523	31	517	36
OvlAdjVol:						375			478			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.92	0.08	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	3400	3264	136	1700	3400	1700	3400	3400	1700	1700	3179	221

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.01	0.11	0.40	0.18	0.08	0.31	0.02	0.16	0.16
OvlAdjV/S:						0.22			0.28			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	46	100	23	24	585	21	2	4	24	132	33	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	100	23	24	585	21	2	4	24	132	33	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	100	23	24	585	21	2	4	24	132	33	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	100	23	24	585	21	2	4	24	132	33	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	100	23	24	585	21	2	4	24	132	33	20

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.93	0.07	1.00	0.14	0.86	1.00	0.62	0.38
Final Sat.:	1700	2764	636	1700	3282	118	1700	243	1457	1700	1058	642

Capacity Analysis Module:

Vol/Sat:	0.03	0.04	0.04	0.01	0.18	0.18	0.00	0.02	0.02	0.08	0.03	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                    FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.0      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      154 185 187 46 718 41 4 37 59 174 96 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 154 185 187 46 718 41 4 37 59 174 96 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 154 185 187 46 718 41 4 37 59 174 96 11
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 154 185 187 46 718 41 4 37 59 174 96 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 154 185 187 46 718 41 4 37 59 174 96 11
-----|-----|-----|-----|
PCE Module:
AutoPCE: 154 185 187 46 718 41 4 37 59 174 96 11
TruckPCE: 0 0 0 0 0 0 0 0 0 0 0 0
ComboPCE: 0 0 0 0 0 0 0 0 0 0 0 0
BicyclePCE: 0 0 0 0 0 0 0 0 0 0 0 0
AdjVolume: 154 185 187 46 718 41 4 37 59 174 96 11
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume: 87 424 938 343
MaxVolume: 2361 2119 693 1015
PedVolume: 0 0 0 0
AdjMaxVol: 2361 2119 693 1015
ApproachVol: 526 805 100 281
ApproachV/C: 0.22 0.38 0.14 0.28
ApproachDel: 2.0 2.7 6.1 4.9
ApproachLOS: A A A A
Queue: 0.9 1.8 0.5 1.1

```


IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[11.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	35	13	8	24	8	21	69	12	24	125	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	35	13	8	24	8	21	69	12	24	125	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	35	13	8	24	8	21	69	12	24	125	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	35	13	8	24	8	21	69	12	24	125	16

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	314	306	75	322	304	133	141	xxxx	xxxxxx	81	xxxx	xxxxxx
Potent Cap.:	643	611	992	635	613	922	1455	xxxx	xxxxxx	1529	xxxx	xxxxxx
Move Cap.:	603	592	992	585	594	922	1455	xxxx	xxxxxx	1529	xxxx	xxxxxx
Volume/Cap:	0.02	0.06	0.01	0.01	0.04	0.01	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	652	xxxxxx	xxxx	637	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	11.1	xxxxxx	xxxxxx	11.0	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.1			11.0			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: C[17.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	32	22	26	44	42	26	11	230	24	34	272	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	22	26	44	42	26	11	230	24	34	272	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	22	26	44	42	26	11	230	24	34	272	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	22	26	44	42	26	11	230	24	34	272	57

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	667	661	242	657	645	301	329	xxxx	xxxxx	254	xxxx	xxxxx
Potent Cap.:	375	385	802	381	394	744	1242	xxxx	xxxxx	1323	xxxx	xxxxx
Move Cap.:	323	372	802	343	380	744	1242	xxxx	xxxxx	1323	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.03	0.13	0.11	0.03	0.01	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	420	xxxxx	xxxx	409	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.6	xxxxx	xxxxx	17.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.6			17.1			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.3 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	35	13	23	46	81	40	10	253	47	51	275	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	13	23	46	81	40	10	253	47	51	275	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	13	23	46	81	40	10	253	47	51	275	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	13	23	46	81	40	10	253	47	51	275	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	13	23	46	81	40	10	253	47	51	275	12

PCE Module:

AutoPCE:	35	13	23	46	81	40	10	253	47	51	275	12
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	35	13	23	46	81	40	10	253	47	51	275	12

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	309	361	178	58
MaxVolume:	1033	1005	1104	1169
PedVolume:	0	0	0	0
AdjMaxVol:	1033	1005	1104	1169
ApproachVol:	71	167	310	338
ApproachV/C:	0.07	0.17	0.28	0.29
ApproachDel:	3.7	4.3	4.5	4.3
ApproachLOS:	A	A	A	A
Queue:	0.2	0.6	1.2	1.2

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.578

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 28 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1
	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	69	0	73	0	0	0	0	2319	56	56	1893	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	73	0	0	0	0	2319	56	56	1893	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	69	0	73	0	0	0	0	2319	56	56	1893	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	73	0	0	0	0	2319	56	56	1893	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	0	73	0	0	0	0	2319	56	56	1893	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.03	0.03	0.37	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.7 Worst Case Level Of Service: B[11.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	6	23	13	15	82	7	6	63	32	70	97	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	23	13	15	82	7	6	63	32	70	97	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	23	13	15	82	7	6	63	32	70	97	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	23	13	15	82	7	6	63	32	70	97	13

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	89	xxxx	xxxxxx	36	xxxx	xxxxxx	212	164	86	205	161	30
Potent Cap.:	1519	xxxx	xxxxxx	1588	xxxx	xxxxxx	749	733	979	758	735	1051
Move Cap.:	1519	xxxx	xxxxxx	1588	xxxx	xxxxxx	657	723	979	677	726	1051
Volume/Cap:	0.00	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.09	0.03	0.10	0.13	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	783	xxxxxx	xxxx	722	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.0	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	11.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.3				11.6	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	301	3099	0	0	2550	850
0	0	0	0	0	0	10	103	0	0	20	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.02		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.041											
Right Turn Adjustment											
0.10											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.19

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2030 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	146	3254	0	0	0	0	1214	0	486
0	31	15	7	156	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.02		RTC	0.07		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.068
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	33	0	0	97	0	0	0	0	61	0	24
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.02	
RTC	0.06		RTC	0.06		RTC	-0.04		RTC	0.05	
Addl ICU	-0.06		Addl ICU	-0.06		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.064											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.11											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	50	72	186	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.11	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.03		RTOG	0.14	
RTOR	0.11		RTOR	0.10		RTOR	0.00		RTOR	0.00	
RTC	0.08		RTC	0.08		RTC	0.03		RTC	0.14	
Addl ICU	-0.08		Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.14	
0.00			0.00			0.01			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.139											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.20											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1055	645	0
61	0	43	0	0	0	0	60	0	90	55	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.09	0.09	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.12	
RTOR	0.09		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.10		RTC	-0.01		RTC	0.06		RTC	0.15	
Addl ICU	-0.07		Addl ICU	0.01		Addl ICU	-0.06		Addl ICU	-0.15	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.156											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.21											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
406	2994	43	176	3224	767	1457	243	567	340	1360	436
16	118	2	29	530	228	54	9	18	14	56	59
0.04	0.04	0.04	0.16	0.19	0.19	0.04	0.03	0.03	0.04	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.19		V/C	0.04		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.19		RTOG	0.06		RTOG	0.06	
RTOR	0.07		RTOR	0.04		RTOR	0.04		RTOR	0.19	
RTC	0.12		RTC	0.22		RTC	0.09		RTC	0.21	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.14	
0.00			0.00			0.00			0.00		
Initial ICU											
0.330											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.38

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
155	97	50	177	459	445	100	2192	278	125	1858	45
0.05	0.03	0.03	0.10	0.14	0.00	0.03	0.43	0.16	0.04	0.36	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.14		V/C	0.43		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.14		RTOG	0.43		RTOG	0.44	
RTOR	0.04		RTOR	0.10		RTOR	0.05		RTOR	0.15	
RTC	0.10		RTC	0.21		RTC	0.46		RTC	0.55	
Addl ICU	-0.07		Addl ICU	-0.21		Addl ICU	-0.30		Addl ICU	-0.52	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.647											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.70											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3264	136	1700	3400	1700	3400	3400	1700	1700	3179	221
91	72	3	18	386	686	622	259	523	31	517	36
0.03	0.02	0.02	0.01	0.11	0.40	0.18	0.08	0.31	0.02	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.18		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.11		RTOG	0.33		RTOG	0.16	
RTOR	0.27		RTOR	0.18		RTOR	0.03		RTOR	0.12	
RTC	0.33		RTC	0.25		RTC	0.35		RTC	0.25	
Addl ICU	-0.31		Addl ICU	0.15		Addl ICU	-0.04		Addl ICU	-0.09	
0.00			0.15			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.486
											Right Turn Adjustment
											0.15
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.69

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2764	636	1700	3282	118	1700	243	1457	1700	1058	642
46	100	23	24	585	21	2	4	24	132	33	20
0.03	0.04	0.04	0.01	0.18	0.18	0.00	0.02	0.02	0.08	0.03	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.18		V/C	0.02		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.19		RTOG	0.18		RTOG	0.02		RTOG	0.09	
RTOR	0.08		RTOR	0.06		RTOR	0.03		RTOR	0.17	
RTC	0.25		RTC	0.23		RTC	0.04		RTC	0.22	
Addl ICU	-0.21		Addl ICU	-0.05		Addl ICU	-0.02		Addl ICU	-0.19	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.299
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.35

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1545	1855	1282	205	3195	138	166	1534	522	1096	604	87
154	185	187	46	718	41	4	37	59	174	96	11
0.10	0.12	0.12	0.22	0.23	0.23	0.02	0.05	0.05	0.16	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.10		V/C	0.23		V/C	0.05		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.23		RTOG	0.05		RTOG	0.18	
RTOR	0.16		RTOR	0.05		RTOR	0.10		RTOR	0.21	
RTC	0.22		RTC	0.27		RTC	0.12		RTC	0.34	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.07		Addl ICU	-0.18	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.533											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.58											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
340	992	368	340	1020	340	350	1150	200	247	1288	165
12	35	13	8	24	8	21	69	12	24	125	16
0.04	0.04	0.04	0.02	0.02	0.02	0.06	0.06	0.06	0.10	0.10	0.10
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.02		V/C	0.06		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.02		RTOG	0.06		RTOG	0.10	
RTOR	0.10		RTOR	0.06		RTOR	0.04		RTOR	0.02	
RTC	0.11		RTC	0.07		RTC	0.09		RTC	0.11	
Addl ICU	-0.07		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.216
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.27

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
680	468	553	668	638	395	1700	1539	161	1700	1405	295
32	22	26	44	42	26	11	230	24	34	272	57
0.05	0.05	0.05	0.07	0.07	0.07	0.01	0.15	0.15	0.02	0.19	0.19
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.07		V/C	0.01		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.07		RTOG	0.18		RTOG	0.19	
RTOR	0.05		RTOR	0.01		RTOR	0.05		RTOR	0.07	
RTC	0.09		RTC	0.07		RTC	0.22		RTC	0.24	
Addl ICU	-0.04		Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.313											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.36											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2011 Approved Project) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1240	460	543	616	1084	281	65	1635	133	266	1434	36
35	13	23	46	81	40	10	253	47	51	275	12
0.03	0.04	0.04	0.07	0.09	0.09	0.15	0.17	0.17	0.19	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.09		V/C	0.17		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.09		RTOG	0.17		RTOG	0.21	
RTOR	0.19		RTOR	0.17		RTOR	0.03		RTOR	0.08	
RTC	0.19		RTC	0.21		RTC	0.19		RTC	0.27	
Addl ICU	-0.15		Addl ICU	-0.12		Addl ICU	-0.02		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.478											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.53											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
69	0	73	0	0	0	0	2319	56	56	1893	0
0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.03	0.03	0.37	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.45		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.45		RTOG	0.49	
RTOR	0.03		RTOR	0.12		RTOR	0.04		RTOR	0.04	
RTC	0.07		RTC	0.05		RTC	0.49		RTC	0.52	
Addl ICU	-0.02		Addl ICU	-0.05		Addl ICU	-0.45		Addl ICU	-0.52	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.528											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.58											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
243	931	526	245	1340	114	101	1060	539	661	916	123
6	23	13	15	82	7	6	63	32	70	97	13
0.02	0.02	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.11	0.11	0.11
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.06		V/C	0.06		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.06		RTOG	0.06		RTOG	0.11	
RTOR	0.11		RTOR	0.06		RTOR	0.02		RTOR	0.06	
RTC	0.10		RTC	0.11		RTC	0.08		RTC	0.15	
Addl ICU	-0.08		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.251
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.30

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	9.0	0.066	A	9.0	0.066	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.9	0.146	A	7.9	0.146	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.4	0.101	B	10.4	0.101	+ 0.000	D/V
#557 "O" St & "C" St	A	2.5	0.307	A	2.5	0.307	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.650	B	xxxxx	0.650	+ 0.000	V/C
#559 "O" St & Trabuco Rd	D	xxxxx	0.812	D	xxxxx	0.812	+ 0.000	V/C
#603 "O" St & "LN" St	A	xxxxx	0.400	A	xxxxx	0.400	+ 0.000	V/C
#605 "O" St & "LQ" St	A	3.4	0.458	A	3.4	0.458	+ 0.000	V/C
#613 "C" St & "LN" St	B	12.3	0.064	B	12.3	0.064	+ 0.000	D/V
#615 "C" St & "LQ" St	C	20.3	0.171	C	20.3	0.171	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.8	0.405	A	4.8	0.405	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.538	A	xxxxx	0.538	+ 0.000	V/C
#629 "LY" St & "LN" St	B	13.4	0.238	B	13.4	0.238	+ 0.000	D/V

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0
FinalVolume:	0	0	0	0	0	0	0	0	0	10	103	0	0	0	21	89				
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0
Final Volume:	0		0		0	0		0		0	10		103		0	0		21		89
Major Street Volume:	223																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	802																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		162		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=219]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		162		0	0		0		0	10		0		4
Major Street Volume:	205																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	831																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		24		0	0		107		0	0		0		0	61		0		24
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=85]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=216]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	1
Final Volume:	0		24	0	0		107	0	0		0	0	0	61		0	24	
Major Street Volume:	131																	
Minor Approach Volume:	85																	
Minor Approach Volume Threshold:	1248																	

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

-------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		60		72	214		61		0
Major Street Volume:	407																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	595																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	60		0	120	
ApproachDel:	10.4				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=104]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=339]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
FinalVolume:	61		0		43	0		0		0	0		60		0	
Major Street Volume:					235											
Minor Approach Volume:					104											
Minor Approach Volume Threshold:					748											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	0	
FinalVolume:	12		32		16	6		21		4	18		68		16	
ApproachDel:	12.0				12.3				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=437]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=437]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	0
FinalVolume:	12		32	16	6		21	4	18		68	16	63		159	22	
Major Street Volume:	346																
Minor Approach Volume:	60																
Minor Approach Volume Threshold:	502																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	32		20		18	49		59		44	11		178		26	44
ApproachDel:	18.2				20.3				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=70]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=909]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=152]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=909]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0
FinalVolume:	32		20	18	49		59	44	11		178	26	44		369	59	
Major Street Volume:	687																
Minor Approach Volume:	152																
Minor Approach Volume Threshold:	414																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	9		21		11	17		93		14	6		62		33	88		167		15
ApproachDel:	xxxxxx				xxxxxx				10.5				13.4							

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=536]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=270]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=536]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Final Volume:	9		21	11	17		93	14	6		62	33	88		167	15			
Major Street Volume:					165														
Minor Approach Volume:					270														
Minor Approach Volume Threshold:					700														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	103	0	0	21	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	103	0	0	21	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	103	0	0	21	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	103	0	0	21	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	21	15	7	162	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	21	15	7	162	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	15	7	162	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	21	15	7	162	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	36	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	124	205	18
Potent Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	864	695	1063
Move Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	862	692	1063
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	911	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	24	0	0	107	0	0	0	0	61	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	24	0	0	107	0	0	0	0	61	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	24	0	0	107	0	0	0	0	61	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	24	0	0	107	0	0	0	0	61	0	24

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	78	xxxx	12
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.4	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[7.9]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	60	72	214	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	60	72	214	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	60	72	214	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	60	72	214	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	132	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[10.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	60	0	120	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	60	0	120	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	60	0	120	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	60	0	120	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	355	xxxx	60	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	60	xxxx	xxxxxx
Potent Cap.:	647	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Move Cap.:	606	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Volume/Cap:	0.10	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.08	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Control Del:	11.6	xxxx	8.7	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.4		xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx
ApproachLOS:	B		*			*			*			*

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      36 175      5 24 515 178      43 11 26      20 66 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 36 175      5 24 515 178      43 11 26      20 66 52
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 36 175      5 24 515 178      43 11 26      20 66 52
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 36 175      5 24 515 178      43 11 26      20 66 52
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 36 175      5 24 515 178      43 11 26      20 66 52
-----|-----|-----|-----|
PCE Module:
AutoPCE:      36 175      5 24 515 178      43 11 26      20 66 52
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      36 175      5 24 515 178      43 11 26      20 66 52
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      78      122      559      254
MaxVolume:      2368      2336      898      1063
PedVolume:      0      0      0      0
AdjMaxVol:      2368      2336      898      1063
ApproachVol:      216      717      80      138
ApproachV/C:      0.09      0.31      0.09      0.13
ApproachDel:      1.7      2.2      4.4      3.9
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      0.4

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.650

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Ignore			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	147	117	65	216	441	390	81	1918	193	148	2001	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	117	65	216	441	390	81	1918	193	148	2001	63
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	117	65	216	441	0	81	1918	193	148	2001	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	117	65	216	441	0	81	1918	193	148	2001	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	117	65	216	441	0	81	1918	193	148	2001	63

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.29	0.71	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2186	1214	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.812
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	150	83	3	18	366	929	639	239	540	24	556	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	150	83	3	18	366	929	639	239	540	24	556	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	83	3	18	366	929	639	239	540	24	556	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	83	3	18	366	929	639	239	540	24	556	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	150	83	3	18	366	929	639	239	540	24	556	28
OvlAdjVol:						610			465			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	3400	3281	119	1700	3400	1700	3400	3400	1700	1700	3237	163

Capacity Analysis Module:

Vol/Sat:	0.04	0.03	0.03	0.01	0.11	0.55	0.19	0.07	0.32	0.01	0.17	0.17
OvlAdjV/S:						0.36			0.27			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.400

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 20 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	18	160	35	23	607	8	7	14	79	176	13	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	160	35	23	607	8	7	14	79	176	13	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	160	35	23	607	8	7	14	79	176	13	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	160	35	23	607	8	7	14	79	176	13	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	160	35	23	607	8	7	14	79	176	13	24

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.97	0.03	1.00	0.15	0.85	1.00	0.35	0.65
Final Sat.:	1700	2790	610	1700	3356	44	1700	256	1444	1700	597	1103

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.18	0.18	0.00	0.05	0.05	0.10	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      59  222  120      60  884  33      3  19  27      259  88  35
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  59  222  120      60  884  33      3  19  27      259  88  35
User Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  59  222  120      60  884  33      3  19  27      259  88  35
Reduct Vol:   0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:  59  222  120      60  884  33      3  19  27      259  88  35
PCE Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  59  222  120      60  884  33      3  19  27      259  88  35
-----|-----|-----|-----|
PCE Module:
AutoPCE:      59  222  120      60  884  33      3  19  27      259  88  35
TruckPCE:      0   0   0       0   0   0       0   0   0       0   0   0
ComboPCE:      0   0   0       0   0   0       0   0   0       0   0   0
BicyclePCE:    0   0   0       0   0   0       0   0   0       0   0   0
AdjVolume:    59  222  120      60  884  33      3  19  27      259  88  35
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      82      406      1203      284
MaxVolume:      2365      2132      550      1047
PedVolume:        0         0         0         0
AdjMaxVol:      2365      2132      550      1047
ApproachVol:     401      977      49      382
ApproachV/C:     0.17      0.46      0.09      0.36
ApproachDel:     1.8       3.1       7.2       5.4
ApproachLOS:      A         A         A         A
Queue:          0.6       2.5       0.3       1.7

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[12.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	32	16	6	21	4	18	68	16	63	159	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	32	16	6	21	4	18	68	16	63	159	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	32	16	6	21	4	18	68	16	63	159	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	32	16	6	21	4	18	68	16	63	159	22

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	421	419	76	432	416	170	181	xxxx	xxxxxx	84	xxxx	xxxxxx
Potent Cap.:	547	528	991	537	530	879	1407	xxxx	xxxxxx	1526	xxxx	xxxxxx
Move Cap.:	505	499	991	482	501	879	1407	xxxx	xxxxxx	1526	xxxx	xxxxxx
Volume/Cap:	0.02	0.06	0.02	0.01	0.04	0.00	0.01	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	577	xxxxxx	xxxx	526	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	12.0	xxxxxx	xxxxxx	12.3	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	12.0			12.3			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: C[20.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	32	20	18	49	59	44	11	178	26	44	369	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	20	18	49	59	44	11	178	26	44	369	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	20	18	49	59	44	11	178	26	44	369	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	20	18	49	59	44	11	178	26	44	369	59

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	751	729	191	719	713	399	428	xxxx	xxxxx	204	xxxx	xxxxx
Potent Cap.:	330	352	856	347	360	656	1142	xxxx	xxxxx	1380	xxxx	xxxxx
Move Cap.:	259	338	856	314	345	656	1142	xxxx	xxxxx	1380	xxxx	xxxxx
Volume/Cap:	0.12	0.06	0.02	0.16	0.17	0.07	0.01	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	343	xxxxx	xxxx	386	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	1.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.2	xxxxx	xxxxx	20.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	18.2			20.3			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.8      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      37  13  21  48 107  51  8 203  46  77 382  14
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  37  13  21  48 107  51  8 203  46  77 382  14
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  37  13  21  48 107  51  8 203  46  77 382  14
Reduct Vol:  0  0  0  0  0  0  0  0  0  0  0  0
Reduced Vol:  37  13  21  48 107  51  8 203  46  77 382  14
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  37  13  21  48 107  51  8 203  46  77 382  14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      37  13  21  48 107  51  8 203  46  77 382  14
TruckPCE:      0  0  0  0  0  0  0  0  0  0  0  0
ComboPCE:      0  0  0  0  0  0  0  0  0  0  0  0
BicyclePCE:    0  0  0  0  0  0  0  0  0  0  0  0
AdjVolume:    37  13  21  48 107  51  8 203  46  77 382  14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      259      496      232      58
MaxVolume:      1060      932      1075      1169
PedVolume:      0      0      0      0
AdjMaxVol:      1060      932      1075      1169
ApproachVol:      71      206      257      473
ApproachV/C:      0.07      0.22      0.24      0.40
ApproachDel:      3.6      5.0      4.4      5.2
ApproachLOS:      A      A      A      A
Queue:      0.2      0.8      0.9      2.0

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.538
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	62	0	70	0	0	0	0	2112	49	63	2100	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	0	70	0	0	0	0	2112	49	63	2100	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	0	70	0	0	0	0	2112	49	63	2100	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	0	70	0	0	0	0	2112	49	63	2100	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	0	70	0	0	0	0	2112	49	63	2100	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.41	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 9.1 Worst Case Level Of Service: B[13.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	9	21	11	17	93	14	6	62	33	88	167	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	21	11	17	93	14	6	62	33	88	167	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	21	11	17	93	14	6	62	33	88	167	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	21	11	17	93	14	6	62	33	88	167	15

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	107	xxxx	xxxxxx	32	xxxx	xxxxxx	270	184	100	226	186	27
Potent Cap.:	1497	xxxx	xxxxxx	1593	xxxx	xxxxxx	687	714	961	734	712	1055
Move Cap.:	1497	xxxx	xxxxxx	1593	xxxx	xxxxxx	546	702	961	652	701	1055
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.09	0.03	0.13	0.24	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	756	xxxxxx	xxxx	697	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	1.8	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.5	xxxxxx	xxxxxx	13.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.5				13.4	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)												
Scenario: Year 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
0	0	0	0	0	0	301	3099	0	0	2550	850	Total Saturation
0	0	0	0	0	0	10	103	0	0	21	89	Volume
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10	Vol/Sat
Critical Movements												
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT		Initial ICU
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01		0.041
Right Turn Capacity Adjustment												
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01		Right Turn Adjustment
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00		
RTC	0.01		RTC	0.02		RTC	0.04		RTC	0.01		
Addl ICU	-0.01		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	0.10		
0.00			0.00			0.00			0.10		0.10	
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.19

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	141	3259	0	0	0	0	1214	0	486
0	21	15	7	162	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.01		RTC	0.06		RTC	0.00		RTC	0.05	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.066
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	24	0	0	107	0	0	0	0	61	0	24
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.02	
RTC	0.06		RTC	0.06		RTC	-0.04		RTC	0.05	
Addl ICU	-0.06		Addl ICU	-0.06		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.067
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	60	72	214	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.13	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.16	
RTOR	0.13		RTOR	0.13		RTOR	0.00		RTOR	0.00	
RTC	0.09		RTC	0.09		RTC	0.04		RTC	0.16	
Addl ICU	-0.09		Addl ICU	-0.09		Addl ICU	0.01		Addl ICU	-0.16	
0.00			0.00			0.01			0.00		
											Initial ICU
											0.161
											Right Turn Adjustment
											0.01
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.22

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1166	534	0
61	0	43	0	0	0	0	60	0	120	55	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.14	
RTOR	0.10		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.11		RTC	-0.01		RTC	0.06		RTC	0.17	
Addl ICU	-0.09		Addl ICU	0.01		Addl ICU	-0.06		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.174
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.22

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
580	2820	71	151	3249	655	1354	346	597	395	1305	375
36	175	5	24	515	178	43	11	26	20	66	52
0.06	0.06	0.06	0.16	0.18	0.18	0.03	0.04	0.04	0.05	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.18		V/C	0.03		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.18		RTOG	0.05		RTOG	0.07	
RTOR	0.06		RTOR	0.03		RTOR	0.06		RTOR	0.18	
RTC	0.13		RTC	0.20		RTC	0.10		RTC	0.20	
Addl ICU	-0.07		Addl ICU	-0.02		Addl ICU	-0.06		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.342
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.39

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
147	117	65	216	441	390	81	1918	193	148	2001	63
0.04	0.03	0.04	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.13		V/C	0.38		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.13		RTOG	0.38		RTOG	0.40	
RTOR	0.04		RTOR	0.03		RTOR	0.04		RTOR	0.14	
RTC	0.08		RTC	0.15		RTC	0.41		RTC	0.50	
Addl ICU	-0.04		Addl ICU	-0.15		Addl ICU	-0.29		Addl ICU	-0.46	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.593											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.64											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3281	119	1700	3400	1700	3400	3400	1700	1700	3237	163
150	83	3	18	366	929	639	239	540	24	556	28
0.04	0.03	0.03	0.01	0.11	0.55	0.19	0.07	0.32	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.11		V/C	0.19		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.14		RTOG	0.11		RTOG	0.35		RTOG	0.17	
RTOR	0.29		RTOR	0.19		RTOR	0.04		RTOR	0.13	
RTC	0.36		RTC	0.25		RTC	0.38		RTC	0.27	
Addl ICU	-0.33		Addl ICU	0.30		Addl ICU	-0.06		Addl ICU	-0.09	
0.00			0.30			0.00			0.00		
											Initial ICU
											0.511
											Right Turn Adjustment
											0.30
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.86

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2790	610	1700	3356	44	1700	256	1444	1700	597	1103
18	160	35	23	607	8	7	14	79	176	13	24
0.01	0.06	0.06	0.01	0.18	0.18	0.00	0.05	0.05	0.10	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.18		V/C	0.05		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.18		RTOG	0.18		RTOG	0.05		RTOG	0.15	
RTOR	0.10		RTOR	0.14		RTOR	0.01		RTOR	0.13	
RTC	0.26		RTC	0.28		RTC	0.06		RTC	0.25	
Addl ICU	-0.20		Addl ICU	-0.10		Addl ICU	-0.01		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
Lanes Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.350											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.40											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	2	0.0	0.5	2	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
714	2686	895	216	3184	92	232	1468	499	1269	431	242
59	222	120	60	884	33	3	19	27	259	88	35
0.08	0.10	0.10	0.28	0.28	0.28	0.01	0.02	0.02	0.20	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.08		V/C	0.28		V/C	0.02		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.28		RTOG	0.02		RTOG	0.21	
RTOR	0.20		RTOR	0.04		RTOR	0.08		RTOR	0.27	
RTC	0.24		RTC	0.31		RTC	0.09		RTC	0.41	
Addl ICU	-0.14		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.590
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.64

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
340	907	453	329	1152	219	300	1133	267	439	1108	153
12	32	16	6	21	4	18	68	16	63	159	22
0.04	0.04	0.04	0.02	0.02	0.02	0.06	0.06	0.06	0.14	0.14	0.14
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.02		V/C	0.06		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.02		RTOG	0.06		RTOG	0.14	
RTOR	0.14		RTOR	0.06		RTOR	0.04		RTOR	0.02	
RTC	0.14		RTC	0.06		RTC	0.09		RTC	0.16	
Addl ICU	-0.11		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.01	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.257											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.31											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
777	486	437	548	660	492	1700	1483	217	1700	1466	234
32	20	18	49	59	44	11	178	26	44	369	59
0.04	0.04	0.04	0.09	0.09	0.09	0.01	0.12	0.12	0.03	0.25	0.25
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.09		V/C	0.01		V/C	0.25	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.09		RTOG	0.23		RTOG	0.25	
RTOR	0.14		RTOR	0.01		RTOR	0.04		RTOR	0.09	
RTC	0.14		RTC	0.09		RTC	0.26		RTC	0.32	
Addl ICU	-0.10		Addl ICU	0.00		Addl ICU	-0.14		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.389											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.44											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1258	442	525	526	1174	274	64	1636	157	285	1415	30
37	13	21	48	107	51	8	203	46	77	382	14
0.03	0.04	0.04	0.09	0.11	0.11	0.12	0.14	0.14	0.27	0.27	0.27
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.11		V/C	0.14		V/C	0.27	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.11		RTOG	0.14		RTOG	0.28	
RTOR	0.27		RTOR	0.13		RTOR	0.03		RTOR	0.10	
RTC	0.25		RTC	0.21		RTC	0.16		RTC	0.36	
Addl ICU	-0.21		Addl ICU	-0.10		Addl ICU	-0.02		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.547
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.60

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
62	0	70	0	0	0	0	2112	49	63	2100	0
0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.41	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.41		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.41		RTOG	0.45	
RTOR	0.04		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.06		RTC	-0.01		RTC	0.44		RTC	0.48	
Addl ICU	-0.02		Addl ICU	0.01		Addl ICU	-0.41		Addl ICU	-0.48	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.488											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.54											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
373	871	456	233	1275	192	101	1044	555	554	1051	94
9	21	11	17	93	14	6	62	33	88	167	15
0.02	0.02	0.02	0.07	0.07	0.07	0.06	0.06	0.06	0.16	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.07		V/C	0.06		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.07		RTOG	0.06		RTOG	0.16	
RTOR	0.16		RTOR	0.06		RTOR	0.02		RTOR	0.07	
RTC	0.14		RTC	0.12		RTC	0.08		RTC	0.21	
Addl ICU	-0.12		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.315											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

INTERSECTION ANALYSIS WORKSHEETS

**YEAR 2030 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	8.9	0.055	A	8.9	0.055	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.9	0.155	A	7.9	0.155	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.6	0.106	B	10.6	0.106	+ 0.000	D/V
#557 "O" St & "C" St	A	2.5	0.303	A	2.5	0.303	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxxx	0.653	B	xxxxxx	0.653	+ 0.000	V/C
#559 "O" St & Trabuco Rd	D	xxxxxx	0.809	D	xxxxxx	0.809	+ 0.000	V/C
#603 "O" St & "LN" St	A	xxxxxx	0.393	A	xxxxxx	0.393	+ 0.000	V/C
#605 "O" St & "LQ" St	A	3.4	0.447	A	3.4	0.447	+ 0.000	V/C
#613 "C" St & "LN" St	B	12.3	0.069	B	12.3	0.069	+ 0.000	D/V
#615 "C" St & "LQ" St	C	24.2	0.252	C	24.2	0.252	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.8	0.404	A	4.8	0.404	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxxx	0.540	A	xxxxxx	0.540	+ 0.000	V/C
#629 "LY" St & "LN" St	B	13.1	0.223	B	13.1	0.223	+ 0.000	D/V

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0
FinalVolume:	0	0	0	0	0	0	0	0	0	5	95	0	0	0	21	89				
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	5	95	0	0	21	89	
Major Street Volume:	210															
Minor Approach Volume:	0															
Minor Approach Volume Threshold:	823															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		152		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=209]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		152		0	0		0		0	10		0		4
Major Street Volume:	195																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	848																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		24		0	0		107		0	0		0		0	51		0		30
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				8.9							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=212]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		24		0	0		107		0	0		0		0	51
Major Street Volume:					131											
Minor Approach Volume:					81											
Minor Approach Volume Threshold:	1248															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0
FinalVolume:	0	0	0	0	0	0	0	0	0	0	60	74	227	61	0	0	0	0	0	0
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		60		74	227		61		0
Major Street Volume:	422																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	582																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		47	0		0		0	0	70		0	130	
ApproachDel:	10.6				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=108]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=365]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
FinalVolume:	61		0		47	0		0		0	0		70		0	
Major Street Volume:					257											
Minor Approach Volume:					108											
Minor Approach Volume Threshold:					720											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0
FinalVolume:	15		35		17	9		33		8	20		79		18	49
ApproachDel:	12.1				12.3				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=67]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=470]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=470]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	15		35	17	9		33	8	20		79	18	49		164	23			
Major Street Volume:	353																		
Minor Approach Volume:	67																		
Minor Approach Volume Threshold:	497																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0	
FinalVolume:	35		27		35	49		83		30	9	153		33	84	336	40
ApproachDel:	18.8				24.2				xxxxxx				xxxxxx				

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=97]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=914]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=162]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=914]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	
FinalVolume:	35		27		35	49		83		30	9		153		33	
Major Street Volume:					655											
Minor Approach Volume:					162											
Minor Approach Volume Threshold:					431											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	9	10	12	16	97	13	6	62	34	92	158	14
ApproachDel:	xxxxxx			xxxxxx			10.4			13.1		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=102]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=523]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=264]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=523]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	9		10	12	16		97	13	6		62	34	92		158	14			
Major Street Volume:					157														
Minor Approach Volume:					264														
Minor Approach Volume Threshold:					713														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	5	95	0	0	21	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	95	0	0	21	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	95	0	0	21	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	95	0	0	21	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
FollowUpTim:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	110	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1493	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1493	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	21	15	7	152	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	21	15	7	152	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	15	7	152	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	21	15	7	152	0	0	0	0	10	0	4

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	36	xxxx	xxxxx	xxxx	xxxx	xxxxx	119	195	18
Potent Cap.:	xxxx	xxxx	xxxxx	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx	871	704	1063
Move Cap.:	xxxx	xxxx	xxxxx	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx	868	701	1063
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.00

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	916	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				9.0	
ApproachLOS:	*			*			*				A	

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: A[8.9]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	24	0	0	107	0	0	0	0	51	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	24	0	0	107	0	0	0	0	51	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	24	0	0	107	0	0	0	0	51	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	24	0	0	107	0	0	0	0	51	0	30

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	78	xxxx	12
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	8.5
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.9		
ApproachLOS:	*			*			*			A		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: A[7.9]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	60	74	227	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	60	74	227	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	60	74	227	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	60	74	227	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	134	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1463	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1463	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[10.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	47	0	0	0	0	70	0	130	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	47	0	0	0	0	70	0	130	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	47	0	0	0	0	70	0	130	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	47	0	0	0	0	70	0	130	57	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	387	xxxx	70	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	70	xxxx	xxxxxx
Potent Cap.:	620	xxxx	998	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1544	xxxx	xxxxxx
Move Cap.:	577	xxxx	998	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1544	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	0.05	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.08	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.4	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Control Del:	12.0	xxxx	8.8	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.6		xxxxxxx			xxxxxxx			xxxxxxx			xxxxxxx
ApproachLOS:	B		*			*			*			*

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      33 175      8 36 490 182      42 16 23      20 66 53
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 33 175      8 36 490 182      42 16 23      20 66 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 33 175      8 36 490 182      42 16 23      20 66 53
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 33 175      8 36 490 182      42 16 23      20 66 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 33 175      8 36 490 182      42 16 23      20 66 53
-----|-----|-----|-----|
PCE Module:
AutoPCE:      33 175      8 36 490 182      42 16 23      20 66 53
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      33 175      8 36 490 182      42 16 23      20 66 53
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      94      119      546      250
MaxVolume:      2356      2338      905      1065
PedVolume:      0      0      0      0
AdjMaxVol:      2356      2338      905      1065
ApproachVol:      216      708      81      139
ApproachV/C:      0.09      0.30      0.09      0.13
ApproachDel:      1.7      2.2      4.4      3.9
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      0.4

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Ignore			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	147	118	66	219	437	393	82	1925	190	144	1988	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	118	66	219	437	393	82	1925	190	144	1988	63
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	118	66	219	437	0	82	1925	190	144	1988	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	118	66	219	437	0	82	1925	190	144	1988	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	118	66	219	437	0	82	1925	190	144	1988	63

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.28	0.72	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2180	1220	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.809
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	144	65	4	27	357	925	529	369	530	23	565	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	144	65	4	27	357	925	529	369	530	23	565	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	144	65	4	27	357	925	529	369	530	23	565	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	65	4	27	357	925	529	369	530	23	565	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	144	65	4	27	357	925	529	369	530	23	565	22
OvlAdjVol:						660			458			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.88	0.12	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3400	3203	197	1700	3400	1700	3400	3400	1700	1700	3273	127

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.02	0.11	0.54	0.16	0.11	0.31	0.01	0.17	0.17
OvlAdjV/S:						0.39			0.27			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.393

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 20 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	18	159	35	22	568	8	7	15	78	184	14	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	159	35	22	568	8	7	15	78	184	14	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	159	35	22	568	8	7	15	78	184	14	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	159	35	22	568	8	7	15	78	184	14	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	159	35	22	568	8	7	15	78	184	14	25

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.97	0.03	1.00	0.16	0.84	1.00	0.36	0.64
Final Sat.:	1700	2787	613	1700	3353	47	1700	274	1426	1700	610	1090

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.11	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      66  217  113      50  870  29      3  17  31  270  85  27
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  66  217  113      50  870  29      3  17  31  270  85  27
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  66  217  113      50  870  29      3  17  31  270  85  27
Reduct Vol:   0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:  66  217  113      50  870  29      3  17  31  270  85  27
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  66  217  113      50  870  29      3  17  31  270  85  27
-----|-----|-----|-----|
PCE Module:
AutoPCE:      66  217  113      50  870  29      3  17  31  270  85  27
TruckPCE:      0   0   0       0   0   0       0   0   0       0   0   0
ComboPCE:      0   0   0       0   0   0       0   0   0       0   0   0
BicyclePCE:    0   0   0       0   0   0       0   0   0       0   0   0
AdjVolume:    66  217  113      50  870  29      3  17  31  270  85  27
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      70      421      1190      286
MaxVolume:     2374     2121     557     1046
PedVolume:        0        0        0        0
AdjMaxVol:     2374     2121     557     1046
ApproachVol:     396     949     51     382
ApproachV/C:    0.17    0.45    0.09    0.37
ApproachDel:     1.8     3.1     7.1     5.4
ApproachLOS:      A      A      A      A
Queue:          0.6     2.4     0.3     1.7

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: B[12.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	15	35	17	9	33	8	20	79	18	49	164	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	35	17	9	33	8	20	79	18	49	164	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	35	17	9	33	8	20	79	18	49	164	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	35	17	9	33	8	20	79	18	49	164	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	422	413	88	428	411	176	187	xxxx	xxxxx	97	xxxx	xxxxx
Potent Cap.:	546	532	976	541	534	873	1399	xxxx	xxxxx	1509	xxxx	xxxxx
Move Cap.:	495	507	976	486	509	873	1399	xxxx	xxxxx	1509	xxxx	xxxxx
Volume/Cap:	0.03	0.07	0.02	0.02	0.06	0.01	0.01	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	574	xxxxx	xxxx	540	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.1	xxxxx	xxxxx	12.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	12.1			12.3			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: C[24.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	35	27	35	49	83	30	9	153	33	84	336	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	27	35	49	83	30	9	153	33	84	336	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	27	35	49	83	30	9	153	33	84	336	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	35	27	35	49	83	30	9	153	33	84	336	40

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	768	732	170	743	728	356	376	xxxx	xxxxx	186	xxxx	xxxxx
Potent Cap.:	321	351	880	334	353	693	1194	xxxx	xxxxx	1401	xxxx	xxxxx
Move Cap.:	235	327	880	285	329	693	1194	xxxx	xxxxx	1401	xxxx	xxxxx
Volume/Cap:	0.15	0.08	0.04	0.17	0.25	0.04	0.01	xxxx	xxxx	0.06	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	358	xxxxx	xxxx	347	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.1	xxxxx	xxxxx	2.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.8	xxxxx	xxxxx	24.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	18.8			24.2			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.8      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      33      13      21      51      114      50      8      199      50      86      373      14
Growth Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
Initial Bse:      33      13      21      51      114      50      8      199      50      86      373      14
User Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Volume:      33      13      21      51      114      50      8      199      50      86      373      14
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      33      13      21      51      114      50      8      199      50      86      373      14
PCE Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
MLF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
FinalVolume:      33      13      21      51      114      50      8      199      50      86      373      14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      33      13      21      51      114      50      8      199      50      86      373      14
TruckPCE:      0      0      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0      0      0
AdjVolume:      33      13      21      51      114      50      8      199      50      86      373      14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      258      492      251      54
MaxVolume:      1061      934      1064      1171
PedVolume:      0      0      0      0
AdjMaxVol:      1061      934      1064      1171
ApproachVol:      67      215      257      473
ApproachV/C:      0.06      0.23      0.24      0.40
ApproachDel:      3.6      5.0      4.5      5.1
ApproachLOS:      A      A      A      A
Queue:      0.2      0.9      0.9      2.0

```


IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	62	0	70	0	0	0	0	2122	49	63	2080	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	0	70	0	0	0	0	2122	49	63	2080	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	0	70	0	0	0	0	2122	49	63	2080	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	0	70	0	0	0	0	2122	49	63	2080	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	0	70	0	0	0	0	2122	49	63	2080	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.42	0.03	0.04	0.41	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Year 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: B[13.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	9	10	12	16	97	13	6	62	34	92	158	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	10	12	16	97	13	6	62	34	92	158	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	10	12	16	97	13	6	62	34	92	158	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	10	12	16	97	13	6	62	34	92	158	14

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	110	xxxx	xxxxxx	22	xxxx	xxxxxx	256	176	104	218	176	16
Potent Cap.:	1493	xxxx	xxxxxx	1607	xxxx	xxxxxx	702	722	957	743	721	1069
Move Cap.:	1493	xxxx	xxxxxx	1607	xxxx	xxxxxx	567	710	957	661	710	1069
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.09	0.04	0.14	0.22	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	764	xxxxxx	xxxx	704	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	1.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.4	xxxxxx	xxxxxx	13.1	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.4				13.1	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	170	3230	0	0	2550	850
0	0	0	0	0	0	5	95	0	0	21	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.02		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.038											
Right Turn Adjustment											
0.10											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.18

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	150	3250	0	0	0	0	1214	0	486
0	21	15	7	152	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.01		RTC	0.06		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.063
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	24	0	0	107	0	0	0	0	51	0	30
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.03		RTOG	0.03	
RTOR	0.03		RTOR	0.03		RTOR	0.00		RTOR	0.02	
RTC	0.05		RTC	0.05		RTC	-0.03		RTC	0.05	
Addl ICU	-0.05		Addl ICU	-0.05		Addl ICU	0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.061											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.11											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	60	74	227	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.13	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.17	
RTOR	0.13		RTOR	0.13		RTOR	0.00		RTOR	0.00	
RTC	0.10		RTC	0.10		RTC	0.04		RTC	0.17	
Addl ICU	-0.10		Addl ICU	-0.10		Addl ICU	0.01		Addl ICU	-0.17	
0.00			0.00			0.01			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.169											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.23											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1182	518	0
61	0	47	0	0	0	0	70	0	130	57	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.11	0.11	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.15	
RTOR	0.11		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.12		RTC	-0.01		RTC	0.07		RTC	0.18	
Addl ICU	-0.09		Addl ICU	0.01		Addl ICU	-0.07		Addl ICU	-0.18	
0.00			0.00			0.00			0.00		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.24

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
539	2861	111	233	3167	691	1231	469	501	395	1305	379
33	175	8	36	490	182	42	16	23	20	66	53
0.06	0.06	0.06	0.15	0.17	0.17	0.03	0.04	0.04	0.05	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.17		V/C	0.03		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.17		RTOG	0.05		RTOG	0.07	
RTOR	0.06		RTOR	0.03		RTOR	0.06		RTOR	0.17	
RTC	0.13		RTC	0.20		RTC	0.10		RTC	0.20	
Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.340											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.39											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project						Time Period:		AM			
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
147	118	66	219	437	393	82	1925	190	144	1988	63
0.04	0.03	0.04	0.13	0.13	0.00	0.02	0.38	0.11	0.04	0.39	0.04
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.13		V/C	0.38		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.13		RTOG	0.38		RTOG	0.40	
RTOR	0.04		RTOR	0.03		RTOR	0.04		RTOR	0.14	
RTC	0.07		RTC	0.15		RTC	0.41		RTC	0.50	
Addl ICU	-0.04		Addl ICU	-0.15		Addl ICU	-0.30		Addl ICU	-0.46	
0.00			0.00			0.00			0.00		
										Initial ICU	
										0.592	
										Right Turn Adjustment	
										0.00	
										Clearance Interval	
										0.05	
										TOTAL CAPACITY UTILIZATION	
										0.64	

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3203	197	1700	3400	1700	3400	3400	1700	1700	3273	127
144	65	4	27	357	925	529	369	530	23	565	22
0.04	0.02	0.02	0.02	0.11	0.54	0.16	0.11	0.31	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.11		V/C	0.16		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.11		RTOG	0.31		RTOG	0.17	
RTOR	0.22		RTOR	0.16		RTOR	0.04		RTOR	0.13	
RTC	0.30		RTC	0.22		RTC	0.35		RTC	0.27	
Addl ICU	-0.28		Addl ICU	0.32		Addl ICU	-0.03		Addl ICU	-0.10	
0.00			0.32			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.476											
Right Turn Adjustment											
0.32											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.85											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2787	613	1700	3353	47	1700	274	1426	1700	610	1090
18	159	35	22	568	8	7	15	78	184	14	25
0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.11	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.17		V/C	0.05		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.17		RTOG	0.17		RTOG	0.05		RTOG	0.16	
RTOR	0.11		RTOR	0.14		RTOR	0.01		RTOR	0.12	
RTC	0.25		RTC	0.27		RTC	0.06		RTC	0.25	
Addl ICU	-0.19		Addl ICU	-0.11		Addl ICU	-0.01		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.343											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.39											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	2	0.0	0.5	2	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
793	2607	873	185	3215	82	255	1445	549	1293	407	205
66	217	113	50	870	29	3	17	31	270	85	27
0.08	0.09	0.09	0.27	0.27	0.27	0.01	0.02	0.02	0.21	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.08		V/C	0.27		V/C	0.02		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.09		RTOG	0.27		RTOG	0.02		RTOG	0.22	
RTOR	0.21		RTOR	0.05		RTOR	0.08		RTOR	0.26	
RTC	0.24		RTC	0.31		RTC	0.09		RTC	0.42	
Addl ICU	-0.15		Addl ICU	-0.04		Addl ICU	-0.06		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.589
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.64

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
381	888	431	306	1122	272	291	1148	262	353	1181	166
15	35	17	9	33	8	20	79	18	49	164	23
0.04	0.04	0.04	0.03	0.03	0.03	0.07	0.07	0.07	0.14	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.03		V/C	0.07		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.03		RTOG	0.07		RTOG	0.14	
RTOR	0.14		RTOR	0.07		RTOR	0.04		RTOR	0.03	
RTC	0.14		RTC	0.08		RTC	0.10		RTC	0.16	
Addl ICU	-0.10		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.276
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.33

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project						Time Period:		AM			
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
613	473	613	514	871	315	1700	1398	302	1700	1519	181
35	27	35	49	83	30	9	153	33	84	336	40
0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.11	0.11	0.05	0.22	0.22
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.10		V/C	0.01		V/C	0.22	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.10		RTOG	0.18		RTOG	0.22	
RTOR	0.12		RTOR	0.01		RTOR	0.06		RTOR	0.10	
RTC	0.14		RTC	0.10		RTC	0.22		RTC	0.29	
Addl ICU	-0.09		Addl ICU	0.00		Addl ICU	-0.11		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Initial ICU											
0.379											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.43

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1220	480	525	525	1175	259	66	1634	171	319	1381	31
33	13	21	51	114	50	8	199	50	86	373	14
0.03	0.03	0.03	0.10	0.11	0.11	0.12	0.14	0.14	0.27	0.27	0.27
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.11		V/C	0.14		V/C	0.27	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.11		RTOG	0.14		RTOG	0.29	
RTOR	0.27		RTOR	0.13		RTOR	0.03		RTOR	0.11	
RTC	0.25		RTC	0.21		RTC	0.16		RTC	0.37	
Addl ICU	-0.21		Addl ICU	-0.10		Addl ICU	-0.02		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.549											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.60											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario:	Year 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
62	0	70	0	0	0	0	2122	49	63	2080	0
0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.42	0.03	0.04	0.41	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.42		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.42		RTOG	0.45	
RTOR	0.04		RTOR	0.05		RTOR	0.04		RTOR	0.04	
RTC	0.06		RTC	0.00		RTC	0.44		RTC	0.48	
Addl ICU	-0.02		Addl ICU	0.00		Addl ICU	-0.41		Addl ICU	-0.48	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.490
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.54

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Year 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
494	548	658	216	1309	175	100	1033	567	592	1017	90
9	10	12	16	97	13	6	62	34	92	158	14
0.02	0.02	0.02	0.07	0.07	0.07	0.06	0.06	0.06	0.16	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.07		V/C	0.06		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.07		RTOG	0.06		RTOG	0.16	
RTOR	0.16		RTOR	0.06		RTOR	0.02		RTOR	0.07	
RTC	0.13		RTC	0.12		RTC	0.07		RTC	0.21	
Addl ICU	-0.12		Addl ICU	-0.05		Addl ICU	-0.01		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.308											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.36											

INTERSECTION ANALYSIS WORKSHEETS

**POST 2030 – NO PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.5	0.315	A	2.5	0.315	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.681	B	xxxxx	0.681	+ 0.000 V/C
#559 "O" St & Trabuco Rd	A	xxxxx	0.591	A	xxxxx	0.591	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.322	A	xxxxx	0.322	+ 0.000 V/C
#605 "O" St & "LQ" St	A	2.9	0.339	A	2.9	0.339	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.2	0.046	B	10.2	0.046	+ 0.000 D/V
#615 "C" St & "LQ" St	B	14.6	0.081	B	14.6	0.081	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.2	0.265	A	4.2	0.265	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.569	A	xxxxx	0.569	+ 0.000 V/C
#629 "LY" St & "LN" St	B	10.9	0.097	B	10.9	0.097	+ 0.000 D/V

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	13		32		15	12		28		10	8		33		9	
ApproachDel:	10.2				10.2				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=280]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=280]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Final Volume:	13		32	15	12		28	10	8		33	9	23		77	20			

Major Street Volume: 170
Minor Approach Volume: 60
Minor Approach Volume Threshold: 692

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	22		12		25	31		32		27	11		214		26	32
ApproachDel:	13.4				14.6				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=59]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=709]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=90]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=709]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	22		12	25	31		32	27	11		214	26	32		260	17
Major Street Volume:	560															
Minor Approach Volume:	90															
Minor Approach Volume Threshold:	485															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	1!	0
FinalVolume:	8		11	11	13		70	10	6		55	31	59		72	12
ApproachDel:	xxxxxx				xxxxxx				10.0				10.9			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=358]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=143]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=358]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	8		11	11	13		70	10		6		55	31		59		72	12	
Major Street Volume:					123														
Minor Approach Volume:					143														
Minor Approach Volume Threshold:					778														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      14 118      2 29 489 225      57 9 16      15 61 55
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 118      2 29 489 225      57 9 16      15 61 55
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 118      2 29 489 225      57 9 16      15 61 55
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 14 118      2 29 489 225      57 9 16      15 61 55
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 118      2 29 489 225      57 9 16      15 61 55
-----|-----|-----|-----|
PCE Module:
AutoPCE:      14 118      2 29 489 225      57 9 16      15 61 55
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      14 118      2 29 489 225      57 9 16      15 61 55
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      95      90      533      189
MaxVolume:      2356      2359      912      1098
PedVolume:      0      0      0      0
AdjMaxVol:      2356      2359      912      1098
ApproachVol:      134      743      82      131
ApproachV/C:      0.06      0.31      0.09      0.12
ApproachDel:      1.6      2.2      4.3      3.7
ApproachLOS:      A      A      A      A
Queue:      0.2      1.4      0.3      0.4

```


IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	137	112	44	200	484	630	135	2166	255	81	1623	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	137	112	44	200	484	630	135	2166	255	81	1623	43
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	112	44	200	484	0	135	2166	255	81	1623	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	112	44	200	484	0	135	2166	255	81	1623	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	112	44	200	484	0	135	2166	255	81	1623	43

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2441	959	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.04	0.05	0.05	0.12	0.14	0.00	0.04	0.42	0.15	0.02	0.32	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.591
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	2	0	1	2	0	2	0

Volume Module:

Base Vol:	89	59	2	17	368	609	588	241	542	33	496	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	59	2	17	368	609	588	241	542	33	496	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	59	2	17	368	609	588	241	542	33	496	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	59	2	17	368	609	588	241	542	33	496	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	89	59	2	17	368	609	588	241	542	33	496	36
OvlAdjVol:						315			497			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	3400	3289	111	1700	3400	1700	3400	3400	1700	1700	3170	230

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.01	0.11	0.36	0.17	0.07	0.32	0.02	0.16	0.16
OvlAdjV/S:						0.19			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.322
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	45	100	25	11	556	22	2	4	24	100	34	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	100	25	11	556	22	2	4	24	100	34	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	100	25	11	556	22	2	4	24	100	34	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	100	25	11	556	22	2	4	24	100	34	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	100	25	11	556	22	2	4	24	100	34	8

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.60	0.40	1.00	1.92	0.08	1.00	0.14	0.86	1.00	0.81	0.19
Final Sat.:	1700	2720	680	1700	3271	129	1700	243	1457	1700	1376	324

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.03	0.04	0.04	0.01	0.17	0.17	0.00	0.02	0.02	0.06	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.9      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      150 164 173      48 632 42      4 40 55      158 100 13
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      150 164 173      48 632 42      4 40 55      158 100 13
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:      150 164 173      48 632 42      4 40 55      158 100 13
Reduct Vol:      0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:      150 164 173      48 632 42      4 40 55      158 100 13
PCE Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      150 164 173      48 632 42      4 40 55      158 100 13
-----|-----|-----|-----|
PCE Module:
AutoPCE:      150 164 173      48 632 42      4 40 55      158 100 13
TruckPCE:      0 0 0      0 0 0      0 0 0      0 0 0
ComboPCE:      0 0 0      0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0 0      0 0 0      0 0 0      0 0 0
AdjVolume:      150 164 173      48 632 42      4 40 55      158 100 13
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      92      408      838      318
MaxVolume:      2358      2130      747      1028
PedVolume:      0      0      0      0
AdjMaxVol:      2358      2130      747      1028
ApproachVol:      487      722      99      271
ApproachV/C:      0.21      0.34      0.13      0.26
ApproachDel:      1.9      2.6      5.6      4.7
ApproachLOS:      A      A      A      A
Queue:      0.8      1.5      0.5      1.1

```


IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[10.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	13	32	15	12	28	10	8	33	9	23	77	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	32	15	12	28	10	8	33	9	23	77	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	32	15	12	28	10	8	33	9	23	77	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	32	15	12	28	10	8	33	9	23	77	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	206	197	38	210	191	87	97	xxxx	xxxxx	42	xxxx	xxxxx
Potent Cap.:	757	703	1040	752	708	977	1509	xxxx	xxxxx	1580	xxxx	xxxxx
Move Cap.:	715	689	1040	704	693	977	1509	xxxx	xxxxx	1580	xxxx	xxxxx
Volume/Cap:	0.02	0.05	0.01	0.02	0.04	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	759	xxxxx	xxxx	739	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.2	xxxxx	xxxxx	10.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.2			10.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[14.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	22	12	25	31	32	27	11	214	26	32	260	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	12	25	31	32	27	11	214	26	32	260	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	12	25	31	32	27	11	214	26	32	260	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	12	25	31	32	27	11	214	26	32	260	17

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	611	590	227	600	595	269	277	xxxx	xxxxx	240	xxxx	xxxxx
Potent Cap.:	409	423	817	416	420	775	1298	xxxx	xxxxx	1339	xxxx	xxxxx
Move Cap.:	362	409	817	384	407	775	1298	xxxx	xxxxx	1339	xxxx	xxxxx
Volume/Cap:	0.06	0.03	0.03	0.08	0.08	0.03	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	489	xxxxx	xxxx	464	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.4	xxxxx	xxxxx	14.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	13.4			14.6			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.2 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	20	8	23	45	69	38	10	233	42	49	252	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	8	23	45	69	38	10	233	42	49	252	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	8	23	45	69	38	10	233	42	49	252	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	8	23	45	69	38	10	233	42	49	252	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	8	23	45	69	38	10	233	42	49	252	12

PCE Module:

AutoPCE:	20	8	23	45	69	38	10	233	42	49	252	12
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	20	8	23	45	69	38	10	233	42	49	252	12

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	288	321	163	38
MaxVolume:	1044	1027	1112	1179
PedVolume:	0	0	0	0
AdjMaxVol:	1044	1027	1112	1179
ApproachVol:	51	152	285	313
ApproachV/C:	0.05	0.15	0.26	0.27
ApproachDel:	3.6	4.1	4.3	4.2
ApproachLOS:	A	A	A	A
Queue:	0.2	0.5	1.0	1.1

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.569
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	50	0	50	0	0	0	0	2320	61	59	1630	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	0	50	0	0	0	0	2320	61	59	1630	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	0	50	0	0	0	0	2320	61	59	1630	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	0	50	0	0	0	0	2320	61	59	1630	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	0	50	0	0	0	0	2320	61	59	1630	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.45	0.04	0.03	0.32	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[10.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	11	11	13	70	10	6	55	31	59	72	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	11	11	13	70	10	6	55	31	59	72	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	11	11	13	70	10	6	55	31	59	72	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	8	11	11	13	70	10	6	55	31	59	72	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	80	xxxx	xxxxxx	22	xxxx	xxxxxx	176	139	75	177	139	17
Potent Cap.:	1531	xxxx	xxxxxx	1607	xxxx	xxxxxx	791	756	992	790	756	1068
Move Cap.:	1531	xxxx	xxxxxx	1607	xxxx	xxxxxx	718	746	992	715	746	1068
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.07	0.03	0.08	0.10	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	811	xxxxxx	xxxx	752	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.0	xxxxxx	xxxxxx	10.9	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			10.0			10.9		
ApproachLOS:	*			*			B			B		

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
361	3039	43	190	3210	804	1468	232	544	336	1364	403
14	118	2	29	489	225	57	9	16	15	61	55
0.04	0.04	0.04	0.15	0.18	0.18	0.04	0.03	0.03	0.04	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.18		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.18		RTOG	0.06		RTOG	0.07	
RTOR	0.07		RTOR	0.04		RTOR	0.04		RTOR	0.18	
RTC	0.12		RTC	0.21		RTC	0.09		RTC	0.20	
Addl ICU	-0.08		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.321											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
137	112	44	200	484	630	135	2166	255	81	1623	43
0.04	0.03	0.03	0.12	0.14	0.00	0.04	0.42	0.15	0.02	0.32	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.14		V/C	0.42		V/C	0.02	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.14		RTOG	0.42		RTOG	0.41	
RTOR	0.02		RTOR	0.13		RTOR	0.04		RTOR	0.15	
RTC	0.08		RTC	0.24		RTC	0.45		RTC	0.52	
Addl ICU	-0.06		Addl ICU	-0.24		Addl ICU	-0.30		Addl ICU	-0.50	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.631											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.68											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3289	111	1700	3400	1700	3400	3400	1700	1700	3170	230
89	59	2	17	368	609	588	241	542	33	496	36
0.03	0.02	0.02	0.01	0.11	0.36	0.17	0.07	0.32	0.02	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.17		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.12		RTOG	0.11		RTOG	0.31		RTOG	0.16	
RTOR	0.26		RTOR	0.17		RTOR	0.03		RTOR	0.12	
RTC	0.32		RTC	0.24		RTC	0.33		RTC	0.24	
Addl ICU	-0.30		Addl ICU	0.12		Addl ICU	-0.01		Addl ICU	-0.09	
0.00			0.12			0.00			0.00		
											Initial ICU
											0.464
											Right Turn Adjustment
											0.12
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.63

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2720	680	1700	3271	129	1700	243	1457	1700	1376	324
45	100	25	11	556	22	2	4	24	100	34	8
0.03	0.04	0.04	0.01	0.17	0.17	0.00	0.02	0.02	0.06	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.17		V/C	0.02		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.19		RTOG	0.17		RTOG	0.02		RTOG	0.07	
RTOR	0.06		RTOR	0.05		RTOR	0.03		RTOR	0.16	
RTC	0.23		RTC	0.21		RTC	0.04		RTC	0.19	
Addl ICU	-0.20		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
									Initial ICU		0.272
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
TOTAL CAPACITY UTILIZATION									0.32		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1624	1776	1309	240	3160	159	155	1545	492	1041	659	98
150	164	173	48	632	42	4	40	55	158	100	13
0.09	0.11	0.11	0.20	0.20	0.20	0.03	0.05	0.05	0.15	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.09		V/C	0.20		V/C	0.05		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.20		RTOG	0.05		RTOG	0.17	
RTOR	0.15		RTOR	0.05		RTOR	0.09		RTOR	0.19	
RTC	0.21		RTC	0.24		RTC	0.12		RTC	0.31	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.07		Addl ICU	-0.16	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.494											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.54											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
368	907	425	408	952	340	272	1122	306	326	1091	283
13	32	15	12	28	10	8	33	9	23	77	20
0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.07	0.07	0.07
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.03		V/C	0.03		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.03		RTOG	0.03		RTOG	0.07	
RTOR	0.07		RTOR	0.03		RTOR	0.04		RTOR	0.03	
RTC	0.09		RTC	0.05		RTC	0.06		RTC	0.09	
Addl ICU	-0.05		Addl ICU	-0.02		Addl ICU	-0.03		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.165
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.21

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
634	346	720	586	604	510	1700	1516	184	1700	1596	104
22	12	25	31	32	27	11	214	26	32	260	17
0.03	0.03	0.03	0.05	0.05	0.05	0.01	0.14	0.14	0.02	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.05		V/C	0.01		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.05		RTOG	0.15		RTOG	0.16	
RTOR	0.03		RTOR	0.01		RTOR	0.03		RTOR	0.05	
RTC	0.06		RTC	0.06		RTC	0.18		RTC	0.20	
Addl ICU	-0.02		Addl ICU	0.00		Addl ICU	-0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
									Initial ICU		0.257
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
									TOTAL CAPACITY UTILIZATION		0.31

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1214	486	631	671	1029	302	70	1630	130	277	1423	39
20	8	23	45	69	38	10	233	42	49	252	12
0.02	0.03	0.03	0.07	0.08	0.08	0.14	0.16	0.16	0.18	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.08		V/C	0.16		V/C	0.18	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.08		RTOG	0.16		RTOG	0.19	
RTOR	0.18		RTOR	0.15		RTOR	0.02		RTOR	0.07	
RTC	0.16		RTC	0.19		RTC	0.17		RTC	0.24	
Addl ICU	-0.13		Addl ICU	-0.11		Addl ICU	-0.01		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.430											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.48											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
50	0	50	0	0	0	0	2320	61	59	1630	0
0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.45	0.04	0.03	0.32	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.45		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.45		RTOG	0.49	
RTOR	0.03		RTOR	0.17		RTOR	0.03		RTOR	0.03	
RTC	0.06		RTC	0.10		RTC	0.48		RTC	0.51	
Addl ICU	-0.03		Addl ICU	-0.10		Addl ICU	-0.44		Addl ICU	-0.51	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.519											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.57											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
453	623	623	238	1280	183	111	1016	573	701	856	143
8	11	11	13	70	10	6	55	31	59	72	12
0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05	0.05	0.08	0.08	0.08
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.05		V/C	0.05		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.05		RTOG	0.05		RTOG	0.08	
RTOR	0.08		RTOR	0.05		RTOR	0.02		RTOR	0.05	
RTC	0.08		RTC	0.10		RTC	0.07		RTC	0.13	
Addl ICU	-0.06		Addl ICU	-0.04		Addl ICU	-0.01		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.211
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.26

INTERSECTION ANALYSIS WORKSHEETS

**POST 2030 – NO PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.5	0.315	A	2.5	0.315	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.681	B	xxxxx	0.681	+ 0.000 V/C
#559 "O" St & Trabuco Rd	A	xxxxx	0.591	A	xxxxx	0.591	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.322	A	xxxxx	0.322	+ 0.000 V/C
#605 "O" St & "LQ" St	A	2.9	0.339	A	2.9	0.339	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.2	0.046	B	10.2	0.046	+ 0.000 D/V
#615 "C" St & "LQ" St	B	14.6	0.081	B	14.6	0.081	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.2	0.265	A	4.2	0.265	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.569	A	xxxxx	0.569	+ 0.000 V/C
#629 "LY" St & "LN" St	B	10.9	0.097	B	10.9	0.097	+ 0.000 D/V

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	13		32		15	12		28		10	8		33		9	
ApproachDel:	10.2				10.2				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=280]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=280]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	13		32	15	12		28	10		8		33	9		23		77	20	

Major Street Volume: 170
Minor Approach Volume: 60
Minor Approach Volume Threshold: 692

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	22		12		25	31		32		27	11		214		26	32
ApproachDel:	13.4				14.6				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=59]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=709]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=90]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=709]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	22		12	25	31		32	27	11		214	26	32		260	17
Major Street Volume:	560															
Minor Approach Volume:	90															
Minor Approach Volume Threshold:	485															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	1!	0
FinalVolume:	8		11	11	13		70	10	6		55	31	59		72	12
ApproachDel:	xxxxxx				xxxxxx				10.0				10.9			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=358]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=143]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=358]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	8		11	11	13		70	10		6		55	31		59		72	12	
Major Street Volume:	123																		
Minor Approach Volume:	143																		
Minor Approach Volume Threshold:	778																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      14 118      2      29 489 225      57 9 16      15 61 55
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 118      2      29 489 225      57 9 16      15 61 55
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 118      2      29 489 225      57 9 16      15 61 55
Reduct Vol: 0 0      0      0 0 0      0 0 0      0 0 0
Reduced Vol: 14 118      2      29 489 225      57 9 16      15 61 55
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 118      2      29 489 225      57 9 16      15 61 55
-----|-----|-----|-----|
PCE Module:
AutoPCE:      14 118      2      29 489 225      57 9 16      15 61 55
TruckPCE:      0 0      0      0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0      0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0      0 0 0      0 0 0      0 0 0
AdjVolume:      14 118      2      29 489 225      57 9 16      15 61 55
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      95      90      533      189
MaxVolume:      2356      2359      912      1098
PedVolume:      0      0      0      0
AdjMaxVol:      2356      2359      912      1098
ApproachVol:      134      743      82      131
ApproachV/C:      0.06      0.31      0.09      0.12
ApproachDel:      1.6      2.2      4.3      3.7
ApproachLOS:      A      A      A      A
Queue:      0.2      1.4      0.3      0.4

```


IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Ignore			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	137	112	44	200	484	630	135	2166	255	81	1623	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	137	112	44	200	484	630	135	2166	255	81	1623	43
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	112	44	200	484	0	135	2166	255	81	1623	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	112	44	200	484	0	135	2166	255	81	1623	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	112	44	200	484	0	135	2166	255	81	1623	43

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2441	959	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.12	0.14	0.00	0.04	0.42	0.15	0.02	0.32	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.591
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	2	0	1	2	0	2	0

Volume Module:

Base Vol:	89	59	2	17	368	609	588	241	542	33	496	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	59	2	17	368	609	588	241	542	33	496	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	59	2	17	368	609	588	241	542	33	496	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	59	2	17	368	609	588	241	542	33	496	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	89	59	2	17	368	609	588	241	542	33	496	36
OvlAdjVol:						315			497			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	3400	3289	111	1700	3400	1700	3400	3400	1700	1700	3170	230

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.01	0.11	0.36	0.17	0.07	0.32	0.02	0.16	0.16
OvlAdjV/S:						0.19			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.322
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	45	100	25	11	556	22	2	4	24	100	34	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	100	25	11	556	22	2	4	24	100	34	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	100	25	11	556	22	2	4	24	100	34	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	100	25	11	556	22	2	4	24	100	34	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	100	25	11	556	22	2	4	24	100	34	8

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.60	0.40	1.00	1.92	0.08	1.00	0.14	0.86	1.00	0.81	0.19
Final Sat.:	1700	2720	680	1700	3271	129	1700	243	1457	1700	1376	324

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.03	0.04	0.04	0.01	0.17	0.17	0.00	0.02	0.02	0.06	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      2.9      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      150  164  173      48  632  42      4  40  55  158  100  13
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  150  164  173      48  632  42      4  40  55  158  100  13
User Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  150  164  173      48  632  42      4  40  55  158  100  13
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  150  164  173      48  632  42      4  40  55  158  100  13
PCE Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  150  164  173      48  632  42      4  40  55  158  100  13
-----|-----|-----|-----|
PCE Module:
AutoPCE:      150  164  173      48  632  42      4  40  55  158  100  13
TruckPCE:      0    0    0      0    0    0      0    0    0      0    0    0
ComboPCE:      0    0    0      0    0    0      0    0    0      0    0    0
BicyclePCE:    0    0    0      0    0    0      0    0    0      0    0    0
AdjVolume:  150  164  173      48  632  42      4  40  55  158  100  13
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      92      408      838      318
MaxVolume:      2358      2130      747      1028
PedVolume:        0        0        0        0
AdjMaxVol:      2358      2130      747      1028
ApproachVol:      487      722      99      271
ApproachV/C:      0.21      0.34      0.13      0.26
ApproachDel:      1.9      2.6      5.6      4.7
ApproachLOS:      A      A      A      A
Queue:          0.8      1.5      0.5      1.1

```


IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[10.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	13	32	15	12	28	10	8	33	9	23	77	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	32	15	12	28	10	8	33	9	23	77	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	32	15	12	28	10	8	33	9	23	77	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	32	15	12	28	10	8	33	9	23	77	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	206	197	38	210	191	87	97	xxxx	xxxxx	42	xxxx	xxxxx
Potent Cap.:	757	703	1040	752	708	977	1509	xxxx	xxxxx	1580	xxxx	xxxxx
Move Cap.:	715	689	1040	704	693	977	1509	xxxx	xxxxx	1580	xxxx	xxxxx
Volume/Cap:	0.02	0.05	0.01	0.02	0.04	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	759	xxxxx	xxxx	739	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.2	xxxxx	xxxxx	10.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.2			10.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[14.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	22	12	25	31	32	27	11	214	26	32	260	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	12	25	31	32	27	11	214	26	32	260	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	12	25	31	32	27	11	214	26	32	260	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	12	25	31	32	27	11	214	26	32	260	17

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	611	590	227	600	595	269	277	xxxx	xxxxx	240	xxxx	xxxxx
Potent Cap.:	409	423	817	416	420	775	1298	xxxx	xxxxx	1339	xxxx	xxxxx
Move Cap.:	362	409	817	384	407	775	1298	xxxx	xxxxx	1339	xxxx	xxxxx
Volume/Cap:	0.06	0.03	0.03	0.08	0.08	0.03	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	489	xxxxx	xxxx	464	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.4	xxxxx	xxxxx	14.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	13.4			14.6			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.2 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	20	8	23	45	69	38	10	233	42	49	252	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	8	23	45	69	38	10	233	42	49	252	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	8	23	45	69	38	10	233	42	49	252	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	8	23	45	69	38	10	233	42	49	252	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	8	23	45	69	38	10	233	42	49	252	12

PCE Module:

AutoPCE:	20	8	23	45	69	38	10	233	42	49	252	12
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	20	8	23	45	69	38	10	233	42	49	252	12

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	288	321	163	38
MaxVolume:	1044	1027	1112	1179
PedVolume:	0	0	0	0
AdjMaxVol:	1044	1027	1112	1179
ApproachVol:	51	152	285	313
ApproachV/C:	0.05	0.15	0.26	0.27
ApproachDel:	3.6	4.1	4.3	4.2
ApproachLOS:	A	A	A	A
Queue:	0.2	0.5	1.0	1.1

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.569
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	50	0	50	0	0	0	0	2320	61	59	1630	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	0	50	0	0	0	0	2320	61	59	1630	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	0	50	0	0	0	0	2320	61	59	1630	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	0	50	0	0	0	0	2320	61	59	1630	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	0	50	0	0	0	0	2320	61	59	1630	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.45	0.04	0.03	0.32	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Post 2030 No Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[10.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	11	11	13	70	10	6	55	31	59	72	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	11	11	13	70	10	6	55	31	59	72	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	11	11	13	70	10	6	55	31	59	72	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	8	11	11	13	70	10	6	55	31	59	72	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	80	xxxx	xxxxxx	22	xxxx	xxxxxx	176	139	75	177	139	17
Potent Cap.:	1531	xxxx	xxxxxx	1607	xxxx	xxxxxx	791	756	992	790	756	1068
Move Cap.:	1531	xxxx	xxxxxx	1607	xxxx	xxxxxx	718	746	992	715	746	1068
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.07	0.03	0.08	0.10	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	811	xxxxxx	xxxx	752	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.0	xxxxxx	xxxxxx	10.9	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.0				10.9	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
547	2853	74	160	3240	680	1372	328	583	405	1295	311
32	167	5	25	506	184	46	11	24	20	64	37
0.06	0.06	0.06	0.16	0.18	0.18	0.03	0.04	0.04	0.05	0.06	0.06
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.18		V/C	0.03		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.18		RTOG	0.05		RTOG	0.06	
RTOR	0.06		RTOR	0.03		RTOR	0.06		RTOR	0.18	
RTC	0.12		RTC	0.20		RTC	0.09		RTC	0.19	
Addl ICU	-0.06		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.331											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
132	126	53	231	487	569	109	1896	194	99	1779	55
0.04	0.04	0.03	0.14	0.14	0.00	0.03	0.37	0.11	0.03	0.35	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.14		V/C	0.37		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.14		RTOG	0.37		RTOG	0.37	
RTOR	0.03		RTOR	0.05		RTOR	0.04		RTOR	0.15	
RTC	0.07		RTC	0.18		RTC	0.40		RTC	0.48	
Addl ICU	-0.04		Addl ICU	-0.18		Addl ICU	-0.29		Addl ICU	-0.45	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.583											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.63											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3248	152	1700	3400	1700	3400	3400	1700	1700	3234	166
145	64	3	17	335	851	637	250	569	26	564	29
0.04	0.02	0.02	0.01	0.10	0.50	0.19	0.07	0.33	0.02	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.19		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.10		RTOG	0.35		RTOG	0.17	
RTOR	0.29		RTOR	0.19		RTOR	0.04		RTOR	0.12	
RTC	0.35		RTC	0.24		RTC	0.38		RTC	0.27	
Addl ICU	-0.33		Addl ICU	0.26		Addl ICU	-0.04		Addl ICU	-0.09	
0.00			0.26			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.503											
Right Turn Adjustment											
0.26											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.81											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2932	468	1700	3350	50	1700	224	1476	1700	850	850
18	169	27	11	605	9	9	12	79	106	12	12
0.01	0.06	0.06	0.01	0.18	0.18	0.01	0.05	0.05	0.06	0.01	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.18		V/C	0.05		V/C	0.06	
Right Turn Capacity Adjustment											
RTOG	0.18		RTOG	0.18		RTOG	0.05		RTOG	0.11	
RTOR	0.06		RTOR	0.10		RTOR	0.01		RTOR	0.13	
RTC	0.23		RTC	0.26		RTC	0.06		RTC	0.21	
Addl ICU	-0.17		Addl ICU	-0.08		Addl ICU	-0.01		Addl ICU	-0.20	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.307											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.36											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1284	2116	1030	127	3273	89	234	1466	626	1278	422	130
128	211	143	32	825	30	4	25	70	251	83	15
0.10	0.11	0.11	0.25	0.25	0.25	0.02	0.05	0.05	0.20	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.10		V/C	0.25		V/C	0.05		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.25		RTOG	0.05		RTOG	0.22	
RTOR	0.20		RTOR	0.06		RTOR	0.10		RTOR	0.24	
RTC	0.25		RTC	0.30		RTC	0.12		RTC	0.41	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.07		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.596
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.65

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)												
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
0	1	0	0	1	0	0	1	0	0	1	0	
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
312	850	538	283	1247	170	198	1020	482	648	808	244	
11	30	19	5	22	3	7	36	17	61	76	23	
0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04	0.09	0.09	0.09	
Critical Movements												
Direction		NBT	Direction		SBL	Direction		EBL	Direction		WBT	
V/C		0.04	V/C		0.02	V/C		0.04	V/C		0.09	
Right Turn Capacity Adjustment												
RTOG		0.04	RTOG		0.02	RTOG		0.04	RTOG		0.09	
RTOR		0.09	RTOR		0.04	RTOR		0.04	RTOR		0.02	
RTC		0.11	RTC		0.04	RTC		0.06	RTC		0.11	
Addl ICU		-0.07	Addl ICU		-0.03	Addl ICU		-0.03	Addl ICU		-0.01	
0.00			0.00			0.00			0.00			
												Initial ICU
												0.182
												Right Turn Adjustment
												0.00
												Clearance Interval
												0.05
												TOTAL CAPACITY UTILIZATION
												0.23

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
694	347	659	497	693	510	1700	1463	237	1700	1610	90
20	10	19	38	53	39	11	173	28	49	340	19
0.03	0.03	0.03	0.08	0.08	0.08	0.01	0.12	0.12	0.03	0.21	0.21
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.08		V/C	0.01		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.08		RTOG	0.19		RTOG	0.21	
RTOR	0.10		RTOR	0.01		RTOR	0.03		RTOR	0.08	
RTC	0.10		RTC	0.08		RTC	0.21		RTC	0.27	
Addl ICU	-0.07		Addl ICU	0.00		Addl ICU	-0.09		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.323											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.37											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1231	469	616	599	1101	295	68	1632	147	294	1406	34
21	8	21	50	92	49	8	192	40	70	335	14
0.02	0.03	0.03	0.08	0.10	0.10	0.12	0.13	0.13	0.24	0.24	0.24
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.10		V/C	0.13		V/C	0.24	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.10		RTOG	0.13		RTOG	0.25	
RTOR	0.24		RTOR	0.13		RTOR	0.02		RTOR	0.09	
RTC	0.21		RTC	0.20		RTC	0.14		RTC	0.32	
Addl ICU	-0.19		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.487
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.54

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
49	0	51	0	0	0	0	2109	45	55	1840	0
0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.41	0.03	0.03	0.36	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.41		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.41		RTOG	0.45	
RTOR	0.03		RTOR	0.09		RTOR	0.03		RTOR	0.03	
RTC	0.05		RTC	0.04		RTC	0.44		RTC	0.47	
Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	-0.41		Addl ICU	-0.47	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.475											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.52											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
510	553	638	221	1292	187	94	982	623	692	906	103
12	13	15	13	76	11	5	52	33	81	106	12
0.02	0.02	0.02	0.06	0.06	0.06	0.05	0.05	0.05	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.06		V/C	0.05		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.06		RTOG	0.05		RTOG	0.12	
RTOR	0.12		RTOR	0.05		RTOR	0.02		RTOR	0.06	
RTC	0.11		RTC	0.10		RTC	0.07		RTC	0.16	
Addl ICU	-0.09		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.252
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.30

INTERSECTION ANALYSIS WORKSHEETS

**POST 2030 – NO PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

 IUSD K-8 School
 Post 2030 No Project
 2012 Modified Project Option 2

Impact Analysis Report
 Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#557 "O" St & "C" St	A	2.4	0.298	A	2.4	0.298	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.640	B	xxxxx	0.640	+ 0.000 V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.767	C	xxxxx	0.767	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.357	A	xxxxx	0.357	+ 0.000 V/C
#605 "O" St & "LQ" St	A	3.4	0.417	A	3.4	0.417	+ 0.000 V/C
#613 "C" St & "LN" St	B	10.8	0.061	B	10.8	0.061	+ 0.000 D/V
#615 "C" St & "LQ" St	C	18.7	0.184	C	18.7	0.184	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.5	0.350	A	4.5	0.350	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.527	A	xxxxx	0.527	+ 0.000 V/C
#629 "LY" St & "LN" St	B	11.8	0.134	B	11.8	0.134	+ 0.000 D/V

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report	
	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	16		38		17	11		39		10	11		42		17	
ApproachDel:	10.7				10.8				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=71]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=341]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=341]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	16		38	17	11		39	10	11		42	17	34		84	22			
Major Street Volume:					210														
Minor Approach Volume:					71														
Minor Approach Volume Threshold:					636														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	27		21		33	36		66		29	12		160		31	72		294		27
ApproachDel:	15.6				18.7				xxxxxx				xxxxxx							

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=808]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=131]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=808]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0
FinalVolume:	27		21	33	36	66		29	12	160		31	72	294		27	
Major Street Volume:	596																
Minor Approach Volume:	131																
Minor Approach Volume Threshold:	463																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	8	11	11	13	79	9	6	56	39	93	94	14
ApproachDel:	xxxxxx			xxxxxx			10.1			11.8		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=433]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=201]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=433]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	8		11	11	13		79	9	6		56	39	93		94	14			
Major Street Volume:	131																		
Minor Approach Volume:	201																		
Minor Approach Volume Threshold:	761																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      31 166      7 46 469 181      43 17 21      20 69 42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 31 166      7 46 469 181      43 17 21      20 69 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 31 166      7 46 469 181      43 17 21      20 69 42
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 31 166      7 46 469 181      43 17 21      20 69 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 31 166      7 46 469 181      43 17 21      20 69 42
-----|-----|-----|-----|
PCE Module:
AutoPCE:      31 166      7 46 469 181      43 17 21      20 69 42
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      31 166      7 46 469 181      43 17 21      20 69 42
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      106      120      535      240
MaxVolume:      2348      2338      911      1070
PedVolume:      0      0      0      0
AdjMaxVol:      2348      2338      911      1070
ApproachVol:      204      696      81      131
ApproachV/C:      0.09      0.30      0.09      0.12
ApproachDel:      1.7      2.2      4.3      3.8
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      0.4

```


IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.640
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	WideBypass			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	0	2	0	3	0	1	2

Volume Module:

Base Vol:	131	126	54	233	475	568	108	1893	188	97	1791	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	126	54	233	475	568	108	1893	188	97	1791	56
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	131	126	54	233	475	0	108	1893	188	97	1791	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	126	54	233	475	0	108	1893	188	97	1791	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	131	126	54	233	475	0	108	1893	188	97	1791	56

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.40	0.60	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2380	1020	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.14	0.14	0.00	0.03	0.37	0.11	0.03	0.35	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.767

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	146	50	4	25	323	863	520	372	567	23	545	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	50	4	25	323	863	520	372	567	23	545	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	146	50	4	25	323	863	520	372	567	23	545	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	50	4	25	323	863	520	372	567	23	545	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	146	50	4	25	323	863	520	372	567	23	545	21
OvlAdjVol:						603			494			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.85	0.15	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3400	3148	252	1700	3400	1700	3400	3400	1700	1700	3274	126

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.01	0.10	0.51	0.15	0.11	0.33	0.01	0.17	0.17
OvlAdjV/S:						0.35			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.357

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 19 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	19	162	32	14	563	8	8	14	79	125	13	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	162	32	14	563	8	8	14	79	125	13	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	162	32	14	563	8	8	14	79	125	13	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	162	32	14	563	8	8	14	79	125	13	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	162	32	14	563	8	8	14	79	125	13	12

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.97	0.03	1.00	0.15	0.85	1.00	0.52	0.48
Final Sat.:	1700	2839	561	1700	3352	48	1700	256	1444	1700	884	816

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.07	0.01	0.01
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.4      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      141  212  128      28  813  27      4  24  82  255  82  14
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  141  212  128      28  813  27      4  24  82  255  82  14
User Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   141  212  128      28  813  27      4  24  82  255  82  14
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   141  212  128      28  813  27      4  24  82  255  82  14
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  141  212  128      28  813  27      4  24  82  255  82  14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      141  212  128      28  813  27      4  24  82  255  82  14
TruckPCE:      0    0    0      0    0    0      0    0    0      0    0    0
ComboPCE:      0    0    0      0    0    0      0    0    0      0    0    0
BicyclePCE:    0    0    0      0    0    0      0    0    0      0    0    0
AdjVolume:    141  212  128      28  813  27      4  24  82  255  82  14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      56      478      1096      357
MaxVolume:      2384      2080      608      1007
PedVolume:        0        0        0        0
AdjMaxVol:      2384      2080      608      1007
ApproachVol:     481      868      110      351
ApproachV/C:     0.20      0.42      0.18      0.35
ApproachDel:     1.9      3.0      7.2      5.5
ApproachLOS:      A      A      A      A
Queue:           0.8      2.1      0.7      1.6

```


IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[10.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:												
Base Vol:	16	38	17	11	39	10	11	42	17	34	84	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	38	17	11	39	10	11	42	17	34	84	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	38	17	11	39	10	11	42	17	34	84	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	38	17	11	39	10	11	42	17	34	84	22

Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	260	247	51	263	244	95	106	xxxx	xxxxxx	59	xxxx	xxxxxx
Potent Cap.:	697	659	1023	694	661	967	1498	xxxx	xxxxxx	1558	xxxx	xxxxxx
Move Cap.:	643	640	1023	637	642	967	1498	xxxx	xxxxxx	1558	xxxx	xxxxxx
Volume/Cap:	0.02	0.06	0.02	0.02	0.06	0.01	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	704	xxxxxx	xxxx	679	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.7	xxxxxx	xxxxxx	10.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.7			10.8			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: C[18.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	27	21	33	36	66	29	12	160	31	72	294	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	21	33	36	66	29	12	160	31	72	294	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	21	33	36	66	29	12	160	31	72	294	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	27	21	33	36	66	29	12	160	31	72	294	27

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	699	665	176	678	667	308	321	xxxx	xxxxx	191	xxxx	xxxxx
Potent Cap.:	357	383	873	369	382	737	1250	xxxx	xxxxx	1395	xxxx	xxxxx
Move Cap.:	282	360	873	323	359	737	1250	xxxx	xxxxx	1395	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.04	0.11	0.18	0.04	0.01	xxxx	xxxx	0.05	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	422	xxxxx	xxxx	392	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.6	xxxxx	xxxxx	18.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.6			18.7			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)

Intersection #626 "LY" St & "LQ" St

Average Delay (sec/veh): 4.5 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Yield Sign			Yield Sign		
Lanes:	1			1			1			1		

Volume Module:

Base Vol:	21	8	21	49	106	48	8	190	45	79	321	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	8	21	49	106	48	8	190	45	79	321	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	8	21	49	106	48	8	190	45	79	321	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	8	21	49	106	48	8	190	45	79	321	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	8	21	49	106	48	8	190	45	79	321	13

PCE Module:

AutoPCE:	21	8	21	49	106	48	8	190	45	79	321	13
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	21	8	21	49	106	48	8	190	45	79	321	13

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	247	421	234	37
MaxVolume:	1067	973	1074	1180
PedVolume:	0	0	0	0
AdjMaxVol:	1067	973	1074	1180
ApproachVol:	50	203	243	413
ApproachV/C:	0.05	0.21	0.23	0.35
ApproachDel:	3.5	4.7	4.3	4.7
ApproachLOS:	A	A	A	A
Queue:	0.1	0.8	0.9	1.6

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.527

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	48	0	52	0	0	0	0	2108	49	61	1842	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	52	0	0	0	0	2108	49	61	1842	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	0	52	0	0	0	0	2108	49	61	1842	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	0	52	0	0	0	0	2108	49	61	1842	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	0	52	0	0	0	0	2108	49	61	1842	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.36	0.00
Crit Moves:	****							****		****		

IUSD K-8 School
Post 2030 No Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: B[11.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	11	11	13	79	9	6	56	39	93	94	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	11	11	13	79	9	6	56	39	93	94	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	11	11	13	79	9	6	56	39	93	94	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	11	11	13	79	9	6	56	39	93	94	14

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	88	xxxx	xxxxxx	22	xxxx	xxxxxx	196	148	84	190	147	17
Potent Cap.:	1520	xxxx	xxxxxx	1607	xxxx	xxxxxx	767	748	981	775	749	1068
Move Cap.:	1520	xxxx	xxxxxx	1607	xxxx	xxxxxx	677	738	981	694	739	1068
Volume/Cap:	0.01	xxxx	xxxxxx	0.01	xxxx	xxxxxx	0.01	0.08	0.04	0.13	0.13	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	811	xxxxxx	xxxx	733	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.1	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.1	xxxxxx	xxxxxx	11.8	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.1				11.8	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
535	2865	103	304	3096	710	1218	482	470	382	1318	322
31	166	7	46	469	181	43	17	21	20	69	42
0.06	0.06	0.06	0.15	0.17	0.17	0.04	0.04	0.04	0.05	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.17		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.17		RTOG	0.05		RTOG	0.07	
RTOR	0.06		RTOR	0.04		RTOR	0.06		RTOR	0.17	
RTC	0.12		RTC	0.20		RTC	0.09		RTC	0.20	
Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.05		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.332											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:		Post 2030 (2012 Modified Project Option 2) No Project							Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
131	126	54	233	475	568	108	1893	188	97	1791	56
0.04	0.04	0.03	0.14	0.14	0.00	0.03	0.37	0.11	0.03	0.35	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.14		V/C	0.37		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.14		RTOG	0.37		RTOG	0.37	
RTOR	0.03		RTOR	0.05		RTOR	0.04		RTOR	0.14	
RTC	0.06		RTC	0.18		RTC	0.40		RTC	0.47	
Addl ICU	-0.03		Addl ICU	-0.18		Addl ICU	-0.29		Addl ICU	-0.44	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.578											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.63											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3148	252	1700	3400	1700	3400	3400	1700	1700	3274	126
146	50	4	25	323	863	520	372	567	23	545	21
0.04	0.02	0.02	0.01	0.10	0.51	0.15	0.11	0.33	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.15		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.12		RTOG	0.10		RTOG	0.31		RTOG	0.17	
RTOR	0.21		RTOR	0.15		RTOR	0.04		RTOR	0.12	
RTC	0.28		RTC	0.21		RTC	0.34		RTC	0.26	
Addl ICU	-0.26		Addl ICU	0.30		Addl ICU	0.00		Addl ICU	-0.09	
0.00			0.30			0.00			0.00		
											Initial ICU
											0.457
											Right Turn Adjustment
											0.30
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.81

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2839	561	1700	3352	48	1700	256	1444	1700	884	816
19	162	32	14	563	8	8	14	79	125	13	12
0.01	0.06	0.06	0.01	0.17	0.17	0.00	0.05	0.05	0.07	0.01	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.17		V/C	0.05		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.17		RTOG	0.17		RTOG	0.05		RTOG	0.12	
RTOR	0.07		RTOR	0.11		RTOR	0.01		RTOR	0.12	
RTC	0.23		RTC	0.25		RTC	0.06		RTC	0.22	
Addl ICU	-0.17		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.20	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.307											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.36											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1358	2042	960	113	3287	82	243	1457	658	1286	414	124
141	212	128	28	813	27	4	24	82	255	82	14
0.10	0.11	0.11	0.25	0.25	0.25	0.02	0.05	0.05	0.20	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.10		V/C	0.25		V/C	0.05		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.11		RTOG	0.25		RTOG	0.05		RTOG	0.23	
RTOR	0.20		RTOR	0.07		RTOR	0.10		RTOR	0.24	
RTC	0.25		RTC	0.30		RTC	0.13		RTC	0.41	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.08		Addl ICU	-0.23	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.602											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.65											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
383	910	407	312	1105	283	267	1020	413	413	1020	267
16	38	17	11	39	10	11	42	17	34	84	22
0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.08
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.04		V/C	0.04		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.04		RTOG	0.04		RTOG	0.08	
RTOR	0.08		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.10		RTC	0.07		RTC	0.07		RTC	0.11	
Addl ICU	-0.06		Addl ICU	-0.03		Addl ICU	-0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.201											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.25											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
567	441	693	467	856	376	1700	1424	276	1700	1557	143
27	21	33	36	66	29	12	160	31	72	294	27
0.05	0.05	0.05	0.08	0.08	0.08	0.01	0.11	0.11	0.04	0.19	0.19
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.08		V/C	0.01		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.08		RTOG	0.15		RTOG	0.19	
RTOR	0.08		RTOR	0.01		RTOR	0.05		RTOR	0.08	
RTC	0.11		RTC	0.08		RTC	0.19		RTC	0.25	
Addl ICU	-0.06		Addl ICU	-0.01		Addl ICU	-0.08		Addl ICU	-0.06	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.321
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.37

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1231	469	616	537	1163	265	69	1631	163	336	1364	33
21	8	21	49	106	48	8	190	45	79	321	13
0.02	0.03	0.03	0.09	0.11	0.11	0.12	0.13	0.13	0.24	0.24	0.24
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.02		V/C	0.11		V/C	0.13		V/C	0.24	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.11		RTOG	0.13		RTOG	0.25	
RTOR	0.24		RTOR	0.13		RTOR	0.02		RTOR	0.10	
RTC	0.21		RTC	0.20		RTC	0.14		RTC	0.32	
Addl ICU	-0.18		Addl ICU	-0.10		Addl ICU	-0.01		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.491											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.54											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) No Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
48	0	52	0	0	0	0	2108	49	61	1842	0
0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.36	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.41		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.41		RTOG	0.45	
RTOR	0.04		RTOR	0.09		RTOR	0.03		RTOR	0.03	
RTC	0.06		RTC	0.04		RTC	0.43		RTC	0.47	
Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	-0.41		Addl ICU	-0.47	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.477											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.53											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) No Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
453	623	623	219	1330	151	101	943	656	787	795	118
8	11	11	13	79	9	6	56	39	93	94	14
0.02	0.02	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.06		V/C	0.06		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.06		RTOG	0.06		RTOG	0.12	
RTOR	0.12		RTOR	0.06		RTOR	0.02		RTOR	0.06	
RTC	0.11		RTC	0.10		RTC	0.07		RTC	0.16	
Addl ICU	-0.09		Addl ICU	-0.04		Addl ICU	-0.01		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.255
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.30

INTERSECTION ANALYSIS WORKSHEETS

**POST YEAR 2030 – WITH PROJECT
2011 APPROVED PROJECT
AM PEAK HOUR**

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000 D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000 D/V
# 3 "LM" St & Driveway 3	A	9.0	0.067	A	9.0	0.067	+ 0.000 D/V
# 4 Driveway 4 & "LN" St	A	7.8	0.131	A	7.8	0.131	+ 0.000 D/V
# 5 Driveway 5 & "LN" St	B	10.1	0.093	B	10.1	0.093	+ 0.000 D/V
#557 "O" St & "C" St	A	2.5	0.320	A	2.5	0.320	+ 0.000 V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.691	B	xxxxx	0.691	+ 0.000 V/C
#559 "O" St & Trabuco Rd	B	xxxxx	0.605	B	xxxxx	0.605	+ 0.000 V/C
#603 "O" St & "LN" St	A	xxxxx	0.346	A	xxxxx	0.346	+ 0.000 V/C
#605 "O" St & "LQ" St	A	3.0	0.363	A	3.0	0.363	+ 0.000 V/C
#613 "C" St & "LN" St	B	11.2	0.071	B	11.2	0.071	+ 0.000 D/V
#615 "C" St & "LQ" St	C	16.5	0.121	C	16.5	0.121	+ 0.000 D/V
#626 "LY" St & "LQ" St	A	4.3	0.289	A	4.3	0.289	+ 0.000 V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.577	A	xxxxx	0.577	+ 0.000 V/C
#629 "LY" St & "LN" St	B	11.5	0.141	B	11.5	0.141	+ 0.000 D/V

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					

Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled									
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0					
FinalVolume:	0	0	0	0	0	0	0	0	0	0	10	102	0	0	0	0	20	89							
ApproachDel:	xxxxxxx					xxxxxxx					xxxxxxx					xxxxxxx									

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	10	102	0	0	20	89	
Major Street Volume:					221											
Minor Approach Volume:					0											
Minor Approach Volume Threshold:					805											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		30		15	7		157		0	0		0		0	10		0		4
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0							

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=223]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		30		15	7		157		0	0		0		0	10		0		4
Major Street Volume:	209																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	824																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1
FinalVolume:	0		33		0	0		99		0	0		0		0	61		0		24
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0							

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=85]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=217]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		33		0	0		99		0	0		0		0	61
Major Street Volume:					132											
Minor Approach Volume:					85											
Minor Approach Volume Threshold:					1245											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	0	41	72	195	61	0					
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0	41		72	195	61		0	
Major Street Volume:					369														
Minor Approach Volume:					0														
Minor Approach Volume Threshold:					628														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	50		0	100	
ApproachDel:	10.1				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=104]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=309]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	50		0	100 55 0 0	
Major Street Volume:					205											
Minor Approach Volume:					104											
Minor Approach Volume Threshold:					791											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	13		42		15	12		28		10	20		63		9	
ApproachDel:	11.2				11.1				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=70]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=387]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=50]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=387]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	13		42	15	12		28	10	20		63	9	23		132	20			
Major Street Volume:					267														
Minor Approach Volume:					70														
Minor Approach Volume Threshold:					572														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	32		22		25	43		42		27	11		218		26	32
ApproachDel:	15.2				16.5				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=79]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=800]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=112]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=800]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0
FinalVolume:	32		22	25	43	42		27	11	218		26	32	265		57
Major Street Volume:	609															
Minor Approach Volume:	112															
Minor Approach Volume Threshold:	456															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	8		23		11	13		84		10	6		55		31	
ApproachDel:	xxxxxx				xxxxxx				10.2				11.5			

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=92]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=414]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=173]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=414]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	8		23	11	13		84	10	6		55	31	59		102	12			
Major Street Volume:					149														
Minor Approach Volume:					173														
Minor Approach Volume Threshold:					727														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	102	0	0	20	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	102	0	0	20	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	102	0	0	20	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	102	0	0	20	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	109	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1494	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1494	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	30	15	7	157	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	30	15	7	157	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	30	15	7	157	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	30	15	7	157	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	45	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	130	209	23
Potent Cap.:	xxxxx	xxxxx	xxxxx	1576	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	857	692	1056
Move Cap.:	xxxxx	xxxxx	xxxxx	1576	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	854	689	1056
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	903	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	0	2	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	33	0	0	99	0	0	0	0	61	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	33	0	0	99	0	0	0	0	61	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	33	0	0	99	0	0	0	0	61	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	33	0	0	99	0	0	0	0	61	0	24

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	83	xxxx	17
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	916	xxxx	1065
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	916	xxxx	1065
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.5	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[7.8]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	0	0	0	0	0	0	0	0	41	72	195	61	0		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	0	0	0	0	0	0	41	72	195	61	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	0	0	0	0	0	0	0	0	41	72	195	61	0		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
FinalVolume:	0	0	0	0	0	0	0	0	0	41	72	195	61	0		

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound				South Bound				East Bound				West Bound			
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	113	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	1489	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxxx	1489	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.13	xxxx	xxxx		

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx				xxxxxx				xxxxxx	xxxxxx				xxxxxx	
ApproachLOS:	*				*				*	*				*	

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[10.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	50	0	100	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	50	0	100	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	50	0	100	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	50	0	100	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	305	xxxx	50	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	50	xxxx	xxxxxx
Potent Cap.:	691	xxxx	1024	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1570	xxxx	xxxxxx
Move Cap.:	655	xxxx	1024	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1570	xxxx	xxxxxx
Volume/Cap:	0.09	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.06	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Control Del:	11.1	xxxx	8.7	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.1		xxxxxx			xxxxxx			xxxxxx			xxxxxx
ApproachLOS:	B		*			*			*			*

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      14 130      2 29 501 225      57 9 16      15 61 73
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 130      2 29 501 225      57 9 16      15 61 73
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 130      2 29 501 225      57 9 16      15 61 73
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 14 130      2 29 501 225      57 9 16      15 61 73
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 130      2 29 501 225      57 9 16      15 61 73
-----|-----|-----|-----|
PCE Module:
AutoPCE:      14 130      2 29 501 225      57 9 16      15 61 73
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      14 130      2 29 501 225      57 9 16      15 61 73
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      95      90      545      201
MaxVolume:      2356      2359      906      1091
PedVolume:      0      0      0      0
AdjMaxVol:      2356      2359      906      1091
ApproachVol:      146      755      82      149
ApproachV/C:      0.06      0.32      0.09      0.14
ApproachDel:      1.6      2.2      4.4      3.8
ApproachLOS:      A      A      A      A
Queue:      0.2      1.4      0.3      0.5

```


IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	WideBypass			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	2	0	1	2	0	3	0	1

Volume Module:

Base Vol:	165	114	44	200	489	630	135	2166	260	83	1623	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	114	44	200	489	630	135	2166	260	83	1623	43
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	114	44	200	489	0	135	2166	260	83	1623	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	114	44	200	489	0	135	2166	260	83	1623	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	114	44	200	489	0	135	2166	260	83	1623	43

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2453	947	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.12	0.14	0.00	0.04	0.42	0.15	0.02	0.32	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.605
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	89	74	2	17	388	633	593	241	542	33	496	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	74	2	17	388	633	593	241	542	33	496	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	74	2	17	388	633	593	241	542	33	496	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	74	2	17	388	633	593	241	542	33	496	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	89	74	2	17	388	633	593	241	542	33	496	36
OvlAdjVol:						337			497			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.95	0.05	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	3400	3311	89	1700	3400	1700	3400	3400	1700	1700	3170	230

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.01	0.11	0.37	0.17	0.07	0.32	0.02	0.16	0.16
OvlAdjV/S:						0.20			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.346
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	45	100	25	23	556	22	2	4	24	141	34	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	100	25	23	556	22	2	4	24	141	34	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	100	25	23	556	22	2	4	24	141	34	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	100	25	23	556	22	2	4	24	141	34	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	100	25	23	556	22	2	4	24	141	34	20

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.60	0.40	1.00	1.92	0.08	1.00	0.14	0.86	1.00	0.63	0.37
Final Sat.:	1700	2720	680	1700	3271	129	1700	243	1457	1700	1070	630

Capacity Analysis Module:

Vol/Sat:	0.03	0.04	0.04	0.01	0.17	0.17	0.00	0.02	0.02	0.08	0.03	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.0      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      150  184  173      48  683  42      4  40  55  158  100  13
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  150  184  173      48  683  42      4  40  55  158  100  13
User Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  150  184  173      48  683  42      4  40  55  158  100  13
Reduct Vol:   0   0   0      0   0   0      0   0   0      0   0   0
Reduced Vol:  150  184  173      48  683  42      4  40  55  158  100  13
PCE Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  150  184  173      48  683  42      4  40  55  158  100  13
-----|-----|-----|-----|
PCE Module:
AutoPCE:      150  184  173      48  683  42      4  40  55  158  100  13
TruckPCE:      0   0   0      0   0   0      0   0   0      0   0   0
ComboPCE:      0   0   0      0   0   0      0   0   0      0   0   0
BicyclePCE:    0   0   0      0   0   0      0   0   0      0   0   0
AdjVolume:    150  184  173      48  683  42      4  40  55  158  100  13
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      92      408      889      338
MaxVolume:      2358      2130      720      1017
PedVolume:        0        0        0        0
AdjMaxVol:      2358      2130      720      1017
ApproachVol:      507      773      99      271
ApproachV/C:      0.22      0.36      0.14      0.27
ApproachDel:      1.9      2.6      5.8      4.8
ApproachLOS:      A      A      A      A
Queue:          0.8      1.7      0.5      1.1

```


IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: B[11.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	13	42	15	12	28	10	20	63	9	23	132	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	42	15	12	28	10	20	63	9	23	132	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	42	15	12	28	10	20	63	9	23	132	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	42	15	12	28	10	20	63	9	23	132	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	315	306	68	324	300	142	152	xxxx	xxxxx	72	xxxx	xxxxx
Potent Cap.:	642	611	1002	633	616	911	1441	xxxx	xxxxx	1541	xxxx	xxxxx
Move Cap.:	599	594	1002	577	598	911	1441	xxxx	xxxxx	1541	xxxx	xxxxx
Volume/Cap:	0.02	0.07	0.01	0.02	0.05	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	652	xxxxx	xxxx	636	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.2	xxxxx	xxxxx	11.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.2			11.1			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[16.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	32	22	25	43	42	27	11	218	26	32	265	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	22	25	43	42	27	11	218	26	32	265	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	22	25	43	42	27	11	218	26	32	265	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	22	25	43	42	27	11	218	26	32	265	57

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	645	639	231	634	624	294	322	xxxx	xxxxx	244	xxxx	xxxxx
Potent Cap.:	388	397	813	395	405	751	1249	xxxx	xxxxx	1334	xxxx	xxxxx
Move Cap.:	335	384	813	357	391	751	1249	xxxx	xxxxx	1334	xxxx	xxxxx
Volume/Cap:	0.10	0.06	0.03	0.12	0.11	0.04	0.01	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	430	xxxxx	xxxx	425	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.2	xxxxx	xxxxx	16.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	15.2			16.5			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

```

-----
                        Level Of Service Computation Report
                    FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.3      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      35  13  23  45  75  38  10  245  46  49  277  12
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  35  13  23  45  75  38  10  245  46  49  277  12
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  35  13  23  45  75  38  10  245  46  49  277  12
Reduct Vol:   0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:  35  13  23  45  75  38  10  245  46  49  277  12
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  35  13  23  45  75  38  10  245  46  49  277  12
-----|-----|-----|-----|
PCE Module:
AutoPCE:      35  13  23  45  75  38  10  245  46  49  277  12
TruckPCE:      0   0   0   0   0   0   0   0   0   0   0   0
ComboPCE:      0   0   0   0   0   0   0   0   0   0   0   0
BicyclePCE:    0   0   0   0   0   0   0   0   0   0   0   0
AdjVolume:    35  13  23  45  75  38  10  245  46  49  277  12
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      300      361      169      58
MaxVolume:      1038      1005      1109      1169
PedVolume:        0        0        0        0
AdjMaxVol:      1038      1005      1109      1169
ApproachVol:      71      158      301      338
ApproachV/C:     0.07     0.16     0.27     0.29
ApproachDel:      3.7      4.2      4.5      4.3
ApproachLOS:      A      A      A      A
Queue:          0.2      0.6      1.1      1.2

```


IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	50	0	62	0	0	0	0	2320	61	61	1632	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	0	62	0	0	0	0	2320	61	61	1632	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	0	62	0	0	0	0	2320	61	61	1632	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	0	62	0	0	0	0	2320	61	61	1632	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	0	62	0	0	0	0	2320	61	61	1632	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.04	0.04	0.32	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
Post 2030 With Project
2011 Approved Project

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 7.5 Worst Case Level Of Service: B[11.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	23	11	13	84	10	6	55	31	59	102	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	23	11	13	84	10	6	55	31	59	102	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	23	11	13	84	10	6	55	31	59	102	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	8	23	11	13	84	10	6	55	31	59	102	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	94	xxxx	xxxxxx	34	xxxx	xxxxxx	217	165	89	203	165	29
Potent Cap.:	1513	xxxx	xxxxxx	1591	xxxx	xxxxxx	744	731	975	760	732	1052
Move Cap.:	1513	xxxx	xxxxxx	1591	xxxx	xxxxxx	649	721	975	686	722	1052
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.08	0.03	0.09	0.14	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	784	xxxxxx	xxxx	725	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	0.9	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.2	xxxxxx	xxxxxx	11.5	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.2				11.5	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	304	3096	0	0	2550	850
0	0	0	0	0	0	10	102	0	0	20	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.02		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.041											
Right Turn Adjustment											
0.10											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.19

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	145	3255	0	0	0	0	1214	0	486
0	30	15	7	157	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.02		RTC	0.07		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.068
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	33	0	0	99	0	0	0	0	61	0	24
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.02	
RTC	0.06		RTC	0.06		RTC	-0.04		RTC	0.05	
Addl ICU	-0.06		Addl ICU	-0.06		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.065											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.12											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	41	72	195	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.11	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.02		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.02		RTOG	0.14	
RTOR	0.11		RTOR	0.10		RTOR	0.00		RTOR	0.00	
RTC	0.09		RTC	0.08		RTC	0.02		RTC	0.14	
Addl ICU	-0.09		Addl ICU	-0.08		Addl ICU	0.02		Addl ICU	-0.14	
0.00			0.00			0.02			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.139											
Right Turn Adjustment											
0.02											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.21											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)												
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM	
South Leg			North Leg			West Leg			East Leg			
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
1	0	1	0	0	0	0	1	0	0	1	0	Lanes
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	Sat/Lane
1700	0	1700	0	0	0	0	1700	0	1097	603	0	Total Saturation
61	0	43	0	0	0	0	50	0	100	55	0	Volume
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.09	0.09	0.00	Vol/Sat
Critical Movements												
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL		Initial ICU
V/C	0.04		V/C	0.00		V/C	0.03		V/C	0.09		0.156
Right Turn Capacity Adjustment												
RTOG	0.04		RTOG	-0.04		RTOG	0.03		RTOG	0.12		Right Turn Adjustment
RTOR	0.09		RTOR	0.03		RTOR	0.04		RTOR	0.04		
RTC	0.10		RTC	-0.01		RTC	0.06		RTC	0.15		
Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.06		Addl ICU	-0.15		
0.00			0.00			0.00			0.00			0.00
												Clearance Interval
												0.05
TOTAL CAPACITY UTILIZATION												0.21

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
331	3069	39	186	3214	790	1468	232	544	336	1364	463
14	130	2	29	501	225	57	9	16	15	61	73
0.04	0.04	0.04	0.16	0.18	0.18	0.04	0.03	0.03	0.04	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.18		V/C	0.04		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.18		RTOG	0.07		RTOG	0.07	
RTOR	0.08		RTOR	0.04		RTOR	0.04		RTOR	0.18	
RTC	0.13		RTC	0.21		RTC	0.10		RTC	0.21	
Addl ICU	-0.09		Addl ICU	-0.03		Addl ICU	-0.07		Addl ICU	-0.14	
0.00			0.00			0.00			0.00		
									Initial ICU		
									0.336		
									Right Turn Adjustment		
									0.00		
									Clearance Interval		
									0.05		
									TOTAL CAPACITY UTILIZATION		
									0.39		

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 "O" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
165	114	44	200	489	630	135	2166	260	83	1623	43
0.05	0.03	0.03	0.12	0.14	0.00	0.04	0.42	0.15	0.02	0.32	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.14		V/C	0.42		V/C	0.02	
Right Turn Capacity Adjustment											
RTOG	0.07		RTOG	0.14		RTOG	0.42		RTOG	0.41	
RTOR	0.02		RTOR	0.13		RTOR	0.05		RTOR	0.16	
RTC	0.09		RTC	0.24		RTC	0.46		RTC	0.53	
Addl ICU	-0.07		Addl ICU	-0.24		Addl ICU	-0.31		Addl ICU	-0.50	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.641											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.69											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3311	89	1700	3400	1700	3400	3400	1700	1700	3170	230
89	74	2	17	388	633	593	241	542	33	496	36
0.03	0.02	0.02	0.01	0.11	0.37	0.17	0.07	0.32	0.02	0.16	0.16
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.11		V/C	0.17		V/C	0.16	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.11		RTOG	0.31		RTOG	0.16	
RTOR	0.26		RTOR	0.17		RTOR	0.03		RTOR	0.12	
RTC	0.33		RTC	0.24		RTC	0.33		RTC	0.24	
Addl ICU	-0.30		Addl ICU	0.13		Addl ICU	-0.01		Addl ICU	-0.09	
0.00			0.13			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.471											
Right Turn Adjustment											
0.13											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.65											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2720	680	1700	3271	129	1700	243	1457	1700	1070	630
45	100	25	23	556	22	2	4	24	141	34	20
0.03	0.04	0.04	0.01	0.17	0.17	0.00	0.02	0.02	0.08	0.03	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.17		V/C	0.02		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.18		RTOG	0.17		RTOG	0.02		RTOG	0.10	
RTOR	0.08		RTOR	0.07		RTOR	0.03		RTOR	0.16	
RTC	0.25		RTC	0.22		RTC	0.04		RTC	0.22	
Addl ICU	-0.21		Addl ICU	-0.05		Addl ICU	-0.02		Addl ICU	-0.19	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.296											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.35											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1527	1873	1236	223	3177	148	155	1545	492	1041	659	98
150	184	173	48	683	42	4	40	55	158	100	13
0.10	0.11	0.11	0.22	0.22	0.22	0.03	0.05	0.05	0.15	0.15	0.15
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.10		V/C	0.22		V/C	0.05		V/C	0.15	
Right Turn Capacity Adjustment											
RTOG	0.10		RTOG	0.22		RTOG	0.05		RTOG	0.17	
RTOR	0.15		RTOR	0.05		RTOR	0.10		RTOR	0.20	
RTC	0.22		RTC	0.25		RTC	0.12		RTC	0.32	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.07		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
									Initial ICU		0.515
									Right Turn Adjustment		0.00
									Clearance Interval		0.05
									TOTAL CAPACITY UTILIZATION		0.56

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
316	1020	364	408	952	340	370	1164	166	223	1282	194
13	42	15	12	28	10	20	63	9	23	132	20
0.04	0.04	0.04	0.03	0.03	0.03	0.05	0.05	0.05	0.10	0.10	0.10
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.03		V/C	0.05		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.03		RTOG	0.05		RTOG	0.10	
RTOR	0.10		RTOR	0.05		RTOR	0.04		RTOR	0.03	
RTC	0.12		RTC	0.07		RTC	0.09		RTC	0.13	
Addl ICU	-0.08		Addl ICU	-0.04		Addl ICU	-0.03		Addl ICU	-0.02	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.228											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.28											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
689	473	538	653	638	410	1700	1519	181	1700	1399	301
32	22	25	43	42	27	11	218	26	32	265	57
0.05	0.05	0.05	0.07	0.07	0.07	0.01	0.14	0.14	0.02	0.19	0.19
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.07		V/C	0.01		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.07		RTOG	0.18		RTOG	0.19	
RTOR	0.05		RTOR	0.01		RTOR	0.05		RTOR	0.07	
RTC	0.09		RTC	0.07		RTC	0.21		RTC	0.24	
Addl ICU	-0.04		Addl ICU	0.00		Addl ICU	-0.07		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.308
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.36

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1240	460	543	638	1063	286	67	1633	134	256	1444	35
35	13	23	45	75	38	10	245	46	49	277	12
0.03	0.04	0.04	0.07	0.08	0.08	0.15	0.16	0.16	0.19	0.20	0.20
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.08		V/C	0.16		V/C	0.19	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.08		RTOG	0.16		RTOG	0.21	
RTOR	0.19		RTOR	0.16		RTOR	0.03		RTOR	0.08	
RTC	0.19		RTC	0.20		RTC	0.19		RTC	0.26	
Addl ICU	-0.15		Addl ICU	-0.12		Addl ICU	-0.02		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.468											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.52											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
50	0	62	0	0	0	0	2320	61	61	1632	0
0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.04	0.04	0.32	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.45		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.45		RTOG	0.49	
RTOR	0.04		RTOR	0.17		RTOR	0.03		RTOR	0.03	
RTC	0.06		RTC	0.10		RTC	0.48		RTC	0.51	
Addl ICU	-0.02		Addl ICU	-0.10		Addl ICU	-0.44		Addl ICU	-0.51	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.520											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.57											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2011 Approved Project) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
324	931	445	207	1335	159	111	1016	573	580	1002	118
8	23	11	13	84	10	6	55	31	59	102	12
0.02	0.02	0.02	0.06	0.06	0.06	0.05	0.05	0.05	0.10	0.10	0.10
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.06		V/C	0.05		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.06		RTOG	0.05		RTOG	0.10	
RTOR	0.10		RTOR	0.05		RTOR	0.02		RTOR	0.06	
RTC	0.10		RTC	0.10		RTC	0.07		RTC	0.15	
Addl ICU	-0.08		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.244											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.29											

INTERSECTION ANALYSIS WORKSHEETS

**POST 2030 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 1
AM PEAK HOUR**

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.007	A	7.4	0.007	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	9.0	0.066	A	9.0	0.066	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.8	0.126	A	7.8	0.126	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.0	0.091	B	10.0	0.091	+ 0.000	D/V
#557 "O" St & "C" St	A	2.5	0.311	A	2.5	0.311	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.641	B	xxxxx	0.641	+ 0.000	V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.782	C	xxxxx	0.782	+ 0.000	V/C
#603 "O" St & "LN" St	A	xxxxx	0.381	A	xxxxx	0.381	+ 0.000	V/C
#605 "O" St & "LQ" St	A	3.5	0.449	A	3.5	0.449	+ 0.000	V/C
#613 "C" St & "LN" St	B	12.1	0.077	B	12.1	0.077	+ 0.000	D/V
#615 "C" St & "LQ" St	C	20.3	0.180	C	20.3	0.180	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.7	0.380	A	4.7	0.380	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.534	A	xxxxx	0.534	+ 0.000	V/C
#629 "LY" St & "LN" St	B	12.6	0.194	B	12.6	0.194	+ 0.000	D/V

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0
FinalVolume:	0	0	0	0	0	0	0	0	0	10	104	0	0	0	21	89				
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	10	104	0	0	21	89	
Major Street Volume:					224											
Minor Approach Volume:					0											
Minor Approach Volume Threshold:					800											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		162		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=219]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		162		0	0		0		0	10		0		4
Major Street Volume:	205																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	831																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	1	0	0	1
FinalVolume:	0		23	0	0		108	0	0		0	0	61		0	24
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9.0			

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=85]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=216]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1
FinalVolume:	0		23		0	0		108		0	0		0		0	61
Major Street Volume:					131											
Minor Approach Volume:					85											
Minor Approach Volume Threshold:					1248											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0
FinalVolume:	0	0	0	0	0	0	0	0	0	0	60	72	185	61	0	0	0	0	0	0
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
FinalVolume:	0		0		0	0		0		0	0		60		72	185		61		0
Major Street Volume:	378																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	620																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		43	0		0		0	0	60		0		
ApproachDel:	10.0				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=104]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=309]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
FinalVolume:	61		0		43	0		0		0	0		60		0	90
Major Street Volume:					205											
Minor Approach Volume:					104											
Minor Approach Volume Threshold:					791											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	0	
FinalVolume:	11		40		19	5		22		3	19		66		17	
ApproachDel:	11.8				12.1				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=70]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=417]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=30]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=417]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled					
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0
FinalVolume:	11		40	19	5		22	3	19		66	17	61		131	23		
Major Street Volume:					317													
Minor Approach Volume:					70													
Minor Approach Volume Threshold:					526													

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0
FinalVolume:	30		20		19	50		63		39	11		177		28	49
ApproachDel:	17.5				20.3				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=69]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=890]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=152]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=890]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0
FinalVolume:	30		20	19	50		63	39	11		177	28	49		345	59	
Major Street Volume:	669																
Minor Approach Volume:	152																
Minor Approach Volume Threshold:	423																

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	12	25	15	13	90	11	5	52	33	81	136	12
ApproachDel:	xxxxxx			xxxxxx			10.3			12.6		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=90]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=485]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=229]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=485]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	12		25		15	13		90		11	5		52		33	81		136		12
Major Street Volume:	166																			
Minor Approach Volume:	229																			
Minor Approach Volume Threshold:	698																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	10	104	0	0	21	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	10	104	0	0	21	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	10	104	0	0	21	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	10	104	0	0	21	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	21	15	7	162	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	21	15	7	162	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	15	7	162	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	21	15	7	162	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	36	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	124	205	18
Potent Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	864	695	1063
Move Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	862	692	1063
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	911	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	2	0	0	2	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	23	0	0	108	0	0	0	0	61	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	23	0	0	108	0	0	0	0	61	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	23	0	0	108	0	0	0	0	61	0	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	23	0	0	108	0	0	0	0	61	0	24

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	77	xxxx	12
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	923	xxxx	1073
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	923	xxxx	1073
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.02

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	8.4	
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0			
ApproachLOS:	*			*			*			A			

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: A[7.8]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	60	72	185	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	60	72	185	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	60	72	185	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	60	72	185	61	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	132	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1466	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.13	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[10.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	43	0	0	0	0	60	0	90	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	43	0	0	0	0	60	0	90	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	43	0	0	0	0	60	0	90	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	43	0	0	0	0	60	0	90	55	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	295	xxxx	60	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	60	xxxx	xxxxxx
Potent Cap.:	700	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Move Cap.:	668	xxxx	1011	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1556	xxxx	xxxxxx
Volume/Cap:	0.09	xxxx	0.04	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.06	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Control Del:	10.9	xxxx	8.7	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.0		xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	B		*		*		*		*		*	

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      32  179      5      25  518  184      46  11  24      20  64  55
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  32  179      5      25  518  184      46  11  24      20  64  55
User Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:  32  179      5      25  518  184      46  11  24      20  64  55
Reduct Vol:   0   0      0      0   0      0      0   0      0      0   0      0
Reduced Vol:  32  179      5      25  518  184      46  11  24      20  64  55
PCE Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  32  179      5      25  518  184      46  11  24      20  64  55
-----|-----|-----|-----|
PCE Module:
AutoPCE:      32  179      5      25  518  184      46  11  24      20  64  55
TruckPCE:      0   0      0      0   0      0      0   0      0      0   0      0
ComboPCE:      0   0      0      0   0      0      0   0      0      0   0      0
BicyclePCE:    0   0      0      0   0      0      0   0      0      0   0      0
AdjVolume:    32  179      5      25  518  184      46  11  24      20  64  55
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      82      116      563      257
MaxVolume:      2365      2340      896      1061
PedVolume:        0        0        0        0
AdjMaxVol:      2365      2340      896      1061
ApproachVol:      216      727      81      139
ApproachV/C:      0.09      0.31      0.09      0.13
ApproachDel:      1.7      2.2      4.4      3.9
ApproachLOS:      A      A      A      A
Queue:          0.3      1.3      0.3      0.5

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Ignore			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	160	128	53	231	492	569	109	1896	199	101	1779	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	160	128	53	231	492	569	109	1896	199	101	1779	55
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	160	128	53	231	492	0	109	1896	199	101	1779	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	128	53	231	492	0	109	1896	199	101	1779	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	160	128	53	231	492	0	109	1896	199	101	1779	55

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2404	996	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.14	0.14	0.00	0.03	0.37	0.12	0.03	0.35	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.782

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	145	79	3	17	355	875	642	250	569	26	564	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	79	3	17	355	875	642	250	569	26	564	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	79	3	17	355	875	642	250	569	26	564	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	79	3	17	355	875	642	250	569	26	564	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	145	79	3	17	355	875	642	250	569	26	564	29
OvlAdjVol:						554			497			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	3400	3276	124	1700	3400	1700	3400	3400	1700	1700	3234	166

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.01	0.10	0.51	0.19	0.07	0.33	0.02	0.17	0.17
OvlAdjV/S:						0.33			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.381
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:

Base Vol:	18	169	27	23	605	9	9	12	79	147	12	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	169	27	23	605	9	9	12	79	147	12	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	169	27	23	605	9	9	12	79	147	12	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	169	27	23	605	9	9	12	79	147	12	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	169	27	23	605	9	9	12	79	147	12	24

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.97	0.03	1.00	0.13	0.87	1.00	0.33	0.67
Final Sat.:	1700	2932	468	1700	3350	50	1700	224	1476	1700	567	1133

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.01	0.18	0.18	0.01	0.05	0.05	0.09	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      128  231  143      32  876  30      4  25  70  251  83  15
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  128  231  143      32  876  30      4  25  70  251  83  15
User Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  128  231  143      32  876  30      4  25  70  251  83  15
Reduct Vol:   0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:  128  231  143      32  876  30      4  25  70  251  83  15
PCE Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  128  231  143      32  876  30      4  25  70  251  83  15
-----|-----|-----|-----|
PCE Module:
AutoPCE:      128  231  143      32  876  30      4  25  70  251  83  15
TruckPCE:      0   0   0       0   0   0       0   0   0       0   0   0
ComboPCE:      0   0   0       0   0   0       0   0   0       0   0   0
BicyclePCE:    0   0   0       0   0   0       0   0   0       0   0   0
AdjVolume:  128  231  143      32  876  30      4  25  70  251  83  15
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      61      462      1159      363
MaxVolume:      2380      2091      574      1004
PedVolume:        0        0        0        0
AdjMaxVol:      2380      2091      574      1004
ApproachVol:      502      938      99      349
ApproachV/C:      0.21      0.45      0.17      0.35
ApproachDel:      1.9      3.1      7.6      5.5
ApproachLOS:      A      A      A      A
Queue:          0.8      2.4      0.6      1.6

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: B[12.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	11	40	19	5	22	3	19	66	17	61	131	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	40	19	5	22	3	19	66	17	61	131	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	40	19	5	22	3	19	66	17	61	131	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	11	40	19	5	22	3	19	66	17	61	131	23

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	390	389	75	407	386	143	154	xxxx	xxxxx	83	xxxx	xxxxx
Potent Cap.:	573	550	993	559	552	910	1439	xxxx	xxxxx	1527	xxxx	xxxxx
Move Cap.:	530	520	993	495	522	910	1439	xxxx	xxxxx	1527	xxxx	xxxxx
Volume/Cap:	0.02	0.08	0.02	0.01	0.04	0.00	0.01	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	599	xxxxx	xxxx	540	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.8	xxxxx	xxxxx	12.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.8			12.1			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: C[20.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:												
Base Vol:	30	20	19	50	63	39	11	177	28	49	345	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	20	19	50	63	39	11	177	28	49	345	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	20	19	50	63	39	11	177	28	49	345	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	30	20	19	50	63	39	11	177	28	49	345	59

Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	737	715	191	705	700	375	404	xxxx	xxxxx	205	xxxx	xxxxx
Potent Cap.:	337	359	856	354	366	676	1166	xxxx	xxxxx	1378	xxxx	xxxxx
Move Cap.:	265	343	856	319	350	676	1166	xxxx	xxxxx	1378	xxxx	xxxxx
Volume/Cap:	0.11	0.06	0.02	0.16	0.18	0.06	0.01	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	356	xxxxx	xxxx	385	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	1.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	17.5	xxxxx	xxxxx	20.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	17.5			20.3			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.7      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      36  13  21  50  98  49  8  204  44  70  360  14
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  36  13  21  50  98  49  8  204  44  70  360  14
User Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  36  13  21  50  98  49  8  204  44  70  360  14
Reduct Vol:  0  0  0  0  0  0  0  0  0  0  0  0
Reduced Vol:  36  13  21  50  98  49  8  204  44  70  360  14
PCE Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  36  13  21  50  98  49  8  204  44  70  360  14
-----|-----|-----|-----|
PCE Module:
AutoPCE:      36  13  21  50  98  49  8  204  44  70  360  14
TruckPCE:      0  0  0  0  0  0  0  0  0  0  0  0
ComboPCE:      0  0  0  0  0  0  0  0  0  0  0  0
BicyclePCE:      0  0  0  0  0  0  0  0  0  0  0  0
AdjVolume:      36  13  21  50  98  49  8  204  44  70  360  14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      262      466      218      57
MaxVolume:      1059      948      1082      1169
PedVolume:      0      0      0      0
AdjMaxVol:      1059      948      1082      1169
ApproachVol:      70      197      256      444
ApproachV/C:      0.07      0.21      0.24      0.38
ApproachDel:      3.6      4.8      4.4      5.0
ApproachLOS:      A      A      A      A
Queue:      0.2      0.8      0.9      1.8

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.534
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	49	0	63	0	0	0	0	2109	45	57	1842	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	0	63	0	0	0	0	2109	45	57	1842	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	0	63	0	0	0	0	2109	45	57	1842	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	0	63	0	0	0	0	2109	45	57	1842	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	0	63	0	0	0	0	2109	45	57	1842	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.03	0.36	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: B[12.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	25	15	13	90	11	5	52	33	81	136	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	25	15	13	90	11	5	52	33	81	136	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	25	15	13	90	11	5	52	33	81	136	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	25	15	13	90	11	5	52	33	81	136	12

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	101	xxxx	xxxxxx	40	xxxx	xxxxxx	252	186	96	221	184	33
Potent Cap.:	1504	xxxx	xxxxxx	1583	xxxx	xxxxxx	706	712	967	740	714	1047
Move Cap.:	1504	xxxx	xxxxxx	1583	xxxx	xxxxxx	587	701	967	666	703	1047
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.07	0.03	0.12	0.19	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	770	xxxxxx	xxxx	701	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	12.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.3				12.6	
ApproachLOS:	*	*	*	*	*	*	B				B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	298	3102	0	0	2550	850
0	0	0	0	0	0	10	104	0	0	21	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.03		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.03		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.042											
Right Turn Adjustment											
0.10											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.19											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	141	3259	0	0	0	0	1214	0	486
0	21	15	7	162	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.01		RTC	0.06		RTC	0.00		RTC	0.05	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.066
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	23	0	0	108	0	0	0	0	61	0	24
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.04		RTOG	0.04	
RTOR	0.04		RTOR	0.04		RTOR	0.00		RTOR	0.03	
RTC	0.06		RTC	0.06		RTC	-0.04		RTC	0.05	
Addl ICU	-0.06		Addl ICU	-0.06		Addl ICU	0.04		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.068											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.12											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	60	72	185	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.11	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.11	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.14	
RTOR	0.11		RTOR	0.11		RTOR	0.00		RTOR	0.00	
RTC	0.08		RTC	0.08		RTC	0.04		RTC	0.14	
Addl ICU	-0.08		Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.14	
0.00			0.00			0.01			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.144											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.20											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1055	645	0
61	0	43	0	0	0	0	60	0	90	55	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.09	0.09	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.12	
RTOR	0.09		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.10		RTC	-0.01		RTC	0.06		RTC	0.15	
Addl ICU	-0.07		Addl ICU	0.01		Addl ICU	-0.06		Addl ICU	-0.15	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.156
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.21

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
516	2884	69	157	3243	668	1372	328	583	405	1295	393
32	179	5	25	518	184	46	11	24	20	64	55
0.06	0.06	0.06	0.16	0.18	0.18	0.03	0.04	0.04	0.05	0.07	0.07
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.18		V/C	0.03		V/C	0.07	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.18		RTOG	0.05		RTOG	0.07	
RTOR	0.07		RTOR	0.03		RTOR	0.06		RTOR	0.18	
RTC	0.13		RTC	0.20		RTC	0.10		RTC	0.20	
Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.346											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.40											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
160	128	53	231	492	569	109	1896	199	101	1779	55
0.05	0.04	0.03	0.14	0.14	0.00	0.03	0.37	0.12	0.03	0.35	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.14		V/C	0.37		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.14		RTOG	0.37		RTOG	0.37	
RTOR	0.03		RTOR	0.05		RTOR	0.05		RTOR	0.15	
RTC	0.08		RTC	0.18		RTC	0.41		RTC	0.49	
Addl ICU	-0.05		Addl ICU	-0.18		Addl ICU	-0.29		Addl ICU	-0.45	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.593											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.64											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3276	124	1700	3400	1700	3400	3400	1700	1700	3234	166
145	79	3	17	355	875	642	250	569	26	564	29
0.04	0.02	0.02	0.01	0.10	0.51	0.19	0.07	0.33	0.02	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.19		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.14		RTOG	0.10		RTOG	0.35		RTOG	0.17	
RTOR	0.29		RTOR	0.19		RTOR	0.04		RTOR	0.12	
RTC	0.35		RTC	0.25		RTC	0.38		RTC	0.27	
Addl ICU	-0.33		Addl ICU	0.27		Addl ICU	-0.05		Addl ICU	-0.09	
0.00			0.27			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.510											
Right Turn Adjustment											
0.27											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.83											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2932	468	1700	3350	50	1700	224	1476	1700	567	1133
18	169	27	23	605	9	9	12	79	147	12	24
0.01	0.06	0.06	0.01	0.18	0.18	0.01	0.05	0.05	0.09	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.18		V/C	0.05		V/C	0.09	
Right Turn Capacity Adjustment											
RTOG	0.18		RTOG	0.18		RTOG	0.05		RTOG	0.13	
RTOR	0.09		RTOR	0.12		RTOR	0.01		RTOR	0.13	
RTC	0.24		RTC	0.27		RTC	0.06		RTC	0.23	
Addl ICU	-0.18		Addl ICU	-0.09		Addl ICU	-0.01		Addl ICU	-0.21	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.331											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1212	2188	975	120	3280	84	234	1466	626	1278	422	130
128	231	143	32	876	30	4	25	70	251	83	15
0.11	0.12	0.12	0.27	0.27	0.27	0.02	0.05	0.05	0.20	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.11		V/C	0.27		V/C	0.05		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.11		RTOG	0.27		RTOG	0.05		RTOG	0.22	
RTOR	0.20		RTOR	0.06		RTOR	0.11		RTOR	0.26	
RTC	0.26		RTC	0.32		RTC	0.12		RTC	0.42	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.08		Addl ICU	-0.24	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.617											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.67											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 1) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
267	971	461	283	1247	170	317	1100	283	482	1036	182
11	40	19	5	22	3	19	66	17	61	131	23
0.04	0.04	0.04	0.02	0.02	0.02	0.06	0.06	0.06	0.13	0.13	0.13
Critical Movements											
Direction	NBT		Direction	SBL		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.02		V/C	0.06		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.02		RTOG	0.06		RTOG	0.13	
RTOR	0.13		RTOR	0.06		RTOR	0.04		RTOR	0.02	
RTC	0.14		RTC	0.06		RTC	0.09		RTC	0.14	
Addl ICU	-0.09		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.01	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.245											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.30											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
739	493	468	559	705	436	1700	1468	232	1700	1452	248
30	20	19	50	63	39	11	177	28	49	345	59
0.04	0.04	0.04	0.09	0.09	0.09	0.01	0.12	0.12	0.03	0.24	0.24
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.09		V/C	0.01		V/C	0.24	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.09		RTOG	0.22		RTOG	0.24	
RTOR	0.12		RTOR	0.01		RTOR	0.04		RTOR	0.09	
RTC	0.13		RTC	0.09		RTC	0.25		RTC	0.30	
Addl ICU	-0.09		Addl ICU	0.00		Addl ICU	-0.13		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.374											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.42											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1249	451	525	574	1126	283	64	1636	151	277	1423	32
36	13	21	50	98	49	8	204	44	70	360	14
0.03	0.03	0.03	0.09	0.10	0.10	0.12	0.14	0.14	0.25	0.26	0.26
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.10		V/C	0.14		V/C	0.25	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.10		RTOG	0.14		RTOG	0.27	
RTOR	0.25		RTOR	0.13		RTOR	0.03		RTOR	0.10	
RTC	0.24		RTC	0.21		RTC	0.16		RTC	0.34	
Addl ICU	-0.20		Addl ICU	-0.10		Addl ICU	-0.02		Addl ICU	-0.08	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.525											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.57											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
49	0	63	0	0	0	0	2109	45	57	1842	0
0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.03	0.36	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.41		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.41		RTOG	0.45	
RTOR	0.03		RTOR	0.09		RTOR	0.03		RTOR	0.03	
RTC	0.05		RTC	0.04		RTC	0.44		RTC	0.47	
Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	-0.41		Addl ICU	-0.47	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.476											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.53											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 1) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
392	817	490	194	1342	164	94	982	623	601	1010	89
12	25	15	13	90	11	5	52	33	81	136	12
0.03	0.03	0.03	0.07	0.07	0.07	0.05	0.05	0.05	0.13	0.13	0.13
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.03		V/C	0.07		V/C	0.05		V/C	0.13	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.07		RTOG	0.05		RTOG	0.13	
RTOR	0.13		RTOR	0.05		RTOR	0.03		RTOR	0.07	
RTC	0.13		RTC	0.11		RTC	0.08		RTC	0.19	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.02		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.285											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.34											

INTERSECTION ANALYSIS WORKSHEETS

**POST 2030 – WITH PROJECT
2012 MODIFIED PROJECT OPTION 2
AM PEAK HOUR**

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change	
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in	
# 1 Driveway 1 & "VV" St	A	7.4	0.003	A	7.4	0.003	+ 0.000	D/V
# 2 "LM" St & Driveway 2	A	9.0	0.012	A	9.0	0.012	+ 0.000	D/V
# 3 "LM" St & Driveway 3	A	8.9	0.055	A	8.9	0.055	+ 0.000	D/V
# 4 Driveway 4 & "LN" St	A	7.9	0.141	A	7.9	0.141	+ 0.000	D/V
# 5 Driveway 5 & "LN" St	B	10.3	0.099	B	10.3	0.099	+ 0.000	D/V
#557 "O" St & "C" St	A	2.5	0.303	A	2.5	0.303	+ 0.000	V/C
#558 "O" St & Irvine Blvd	B	xxxxx	0.641	B	xxxxx	0.641	+ 0.000	V/C
#559 "O" St & Trabuco Rd	C	xxxxx	0.781	C	xxxxx	0.781	+ 0.000	V/C
#603 "O" St & "LN" St	A	xxxxx	0.381	A	xxxxx	0.381	+ 0.000	V/C
#605 "O" St & "LQ" St	A	3.5	0.442	A	3.5	0.442	+ 0.000	V/C
#613 "C" St & "LN" St	B	11.9	0.081	B	11.9	0.081	+ 0.000	D/V
#615 "C" St & "LQ" St	C	22.3	0.222	C	22.3	0.222	+ 0.000	D/V
#626 "LY" St & "LQ" St	A	4.7	0.374	A	4.7	0.374	+ 0.000	V/C
#627 "LY" St & Irvine Blvd	A	xxxxx	0.538	A	xxxxx	0.538	+ 0.000	V/C
#629 "LY" St & "LN" St	B	12.4	0.171	B	12.4	0.171	+ 0.000	D/V

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Intersection	Signal Warrant Summary Report	
	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 Driveway 1 & "VV" St	No / No	??? / ???
# 2 "LM" St & Driveway 2	No / No	??? / ???
# 3 "LM" St & Driveway 3	No / No	??? / ???
# 4 Driveway 4 & "LN" St	No / No	??? / ???
# 5 Driveway 5 & "LN" St	No / No	??? / ???
#613 "C" St & "LN" St	No / No	??? / ???
#615 "C" St & "LQ" St	No / No	??? / ???
#629 "LY" St & "LN" St	No / No	??? / ???

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound								South Bound								East Bound								West Bound											
Movement:	L - T - R				L - T - R				L - T - R				L - T - R				L - T - R				L - T - R				L - T - R				L - T - R							

Control:	Stop Sign								Stop Sign								Uncontrolled								Uncontrolled											
Lanes:	0 0 0 0 0				0 0 0 0 0				0 1 1 0 0				0 0 1 1 0				0 0 1 1 0				0 0 1 1 0				0 0 1 1 0											
FinalVolume:	0 0 0 0				0 0 0 0				5 95 0				0 21 89				0 21 89				0 21 89				0 21 89											
ApproachDel:	xxxxxx								xxxxxx								xxxxxx								xxxxxx											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 Driveway 1 & "VV" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	5	95	0	0	21	89	
Major Street Volume:	210															
Minor Approach Volume:	0															
Minor Approach Volume Threshold:	823															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
FinalVolume:	0		21		15	7		152		0	0		0		0	10		0		4
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.0				

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=14]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=209]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 "LM" St & Driveway 2

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Final Volume:	0		21		15	7		152		0	0		0		0	10		0		4
Major Street Volume:	195																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	848																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	
FinalVolume:	0		24		0	0	107		0	0	0		0	51	30	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				8.9			

Approach[westbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=81]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=212]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 "LM" St & Driveway 3

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	1
Final Volume:	0		24	0	0		107	0	0		0	0	0	51		0	30	
Major Street Volume:	131																	
Minor Approach Volume:	81																	
Minor Approach Volume Threshold:	1248																	

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

-----	-----				-----				-----				-----							
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----				-----				-----				-----							
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	
FinalVolume:	0	0	0	0	0	0	0	0	0	0	60	74	207	61	0	0	0	0	0	
ApproachDel:	xxxxxxx				xxxxxxx				xxxxxxx				xxxxxxx							
-----	-----				-----				-----				-----							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 Driveway 4 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	
FinalVolume:	0		0		0	0		0		0	0	60		74	207	61	0
Major Street Volume:					402												
Minor Approach Volume:					0												
Minor Approach Volume Threshold:					599												

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
FinalVolume:	61		0		47	0		0		0	0	70		0	110	
ApproachDel:	10.3				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=108]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=345]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Driveway 5 & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
FinalVolume:	61		0		47	0		0		0	0		70		0	
Major Street Volume:					237											
Minor Approach Volume:					108											
Minor Approach Volume Threshold:					745											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
FinalVolume:	16		44		17	11		39		10	23		77		17	
ApproachDel:	11.9				11.9				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=77]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=451]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=60]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=451]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #613 "C" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
FinalVolume:	16		44	17	11		39	10	23		77	17	34		141	22			
Major Street Volume:	314																		
Minor Approach Volume:	77																		
Minor Approach Volume Threshold:	528																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled					
Lanes:	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0		
FinalVolume:	34		31		33	48		76		29	12		164		31	72	319	44
ApproachDel:	18.1				22.3				xxxxxx				xxxxxx					

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=98]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=893]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=153]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=893]

SUCCEED - Total volume greater than or equal to 800 for intersection
with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #615 "C" St & "LQ" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	
FinalVolume:	34		31		33	48		76		29	12		164		31	
Major Street Volume:					642											
Minor Approach Volume:					153											
Minor Approach Volume Threshold:					438											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Delay Signal Warrant Report

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
FinalVolume:	8	11	11	13	93	9	6	56	39	93	124	14
ApproachDel:	xxxxxx			xxxxxx			10.2			12.4		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=477]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=231]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=477]

FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #629 "LY" St & "LN" St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound						
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign						
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Final Volume:	8		11	11	13		93	9	6		56	39	93		124	14			
Major Street Volume:	145																		
Minor Approach Volume:	231																		
Minor Approach Volume Threshold:	734																		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Driveway 1 & "VV" St

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[7.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	5	95	0	0	21	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	5	95	0	0	21	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	5	95	0	0	21	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	5	95	0	0	21	89

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 "LM" St & Driveway 2

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	21	15	7	152	0	0	0	0	10	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	21	15	7	152	0	0	0	0	10	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	15	7	152	0	0	0	0	10	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	21	15	7	152	0	0	0	0	10	0	4

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	36	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	119	195	18
Potent Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	871	704	1063
Move Cap.:	xxxxx	xxxxx	xxxxx	1588	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	868	701	1063
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	0.00	0.00

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	916	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	7.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.0	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	*	A	*

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 "LM" St & Driveway 3

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: A[8.9]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	24	0	0	0	107	0	0	0	0	0	0	51	0	30	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	24	0	0	0	107	0	0	0	0	0	0	51	0	30	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	24	0	0	0	107	0	0	0	0	0	0	51	0	30	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	0	24	0	0	0	107	0	0	0	0	0	0	51	0	30	

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	78	xxxx	12
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	922	xxxx	1072
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.1			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	8.5			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.9					
ApproachLOS:	*			*			*			A					

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Driveway 4 & "LN" St

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[7.9]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	60	74	207	61	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	60	74	207	61	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	60	74	207	61	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	60	74	207	61	0

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	134	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1463	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1463	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	*			*			*			*					

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Driveway 5 & "LN" St

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: B[10.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	61	0	47	0	0	0	0	70	0	110	57	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	47	0	0	0	0	70	0	110	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	0	47	0	0	0	0	70	0	110	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	0	47	0	0	0	0	70	0	110	57	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	347	xxxx	70	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	70	xxxx	xxxxxx
Potent Cap.:	654	xxxx	998	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1544	xxxx	xxxxxx
Move Cap.:	616	xxxx	998	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1544	xxxx	xxxxxx
Volume/Cap:	0.10	xxxx	0.05	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.07	xxxx	xxxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Control Del:	11.5	xxxx	8.8	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.3		xxxxxx			xxxxxx			xxxxxx	xxxxxx		
ApproachLOS:	B		*			*			*			*

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #557 "O" St & "C" St
*****
Average Delay (sec/veh):      2.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      31 178      7 46 481 181      43 17 21      20 69 60
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 31 178      7 46 481 181      43 17 21      20 69 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 31 178      7 46 481 181      43 17 21      20 69 60
Reduct Vol: 0 0      0 0 0 0      0 0 0      0 0 0
Reduced Vol: 31 178      7 46 481 181      43 17 21      20 69 60
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 31 178      7 46 481 181      43 17 21      20 69 60
-----|-----|-----|-----|
PCE Module:
AutoPCE:      31 178      7 46 481 181      43 17 21      20 69 60
TruckPCE:      0 0      0 0 0 0      0 0 0      0 0 0
ComboPCE:      0 0      0 0 0 0      0 0 0      0 0 0
BicyclePCE:      0 0      0 0 0 0      0 0 0      0 0 0
AdjVolume:      31 178      7 46 481 181      43 17 21      20 69 60
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      106      120      547      252
MaxVolume:      2348      2338      905      1064
PedVolume:      0      0      0      0
AdjMaxVol:      2348      2338      905      1064
ApproachVol:      216      708      81      149
ApproachV/C:      0.09      0.30      0.09      0.14
ApproachDel:      1.7      2.2      4.4      3.9
ApproachLOS:      A      A      A      A
Queue:      0.3      1.3      0.3      0.5

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #558 "O" St & Irvine Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	WideBypass			Ignore			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	2	0	1	1	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	159	128	54	233	480	568	108	1893	193	99	1791	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	128	54	233	480	568	108	1893	193	99	1791	56
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	159	128	54	233	480	0	108	1893	193	99	1791	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	128	54	233	480	0	108	1893	193	99	1791	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	128	54	233	480	0	108	1893	193	99	1791	56

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3400	2391	1009	1700	3400	1700	3400	5100	1700	3400	5100	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.14	0.14	0.00	0.03	0.37	0.11	0.03	0.35	0.03
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #559 "O" St & Trabuco Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Ovl			Ovl			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	1	0	1	2	0	2	0	1	1	0

Volume Module:

Base Vol:	146	62	4	25	343	887	525	372	567	23	545	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	62	4	25	343	887	525	372	567	23	545	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	146	62	4	25	343	887	525	372	567	23	545	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	62	4	25	343	887	525	372	567	23	545	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	146	62	4	25	343	887	525	372	567	23	545	21
OvlAdjVol:						624			494			

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.88	0.12	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3400	3194	206	1700	3400	1700	3400	3400	1700	1700	3274	126

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.02	0.01	0.10	0.52	0.15	0.11	0.33	0.01	0.17	0.17
OvlAdjV/S:						0.37			0.29			
Crit Moves:	****					****	****				****	

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #603 "O" St & "LN" St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.381

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 19 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:

Base Vol:	19	162	32	26	563	8	8	14	79	166	13	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	162	32	26	563	8	8	14	79	166	13	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	162	32	26	563	8	8	14	79	166	13	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	162	32	26	563	8	8	14	79	166	13	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	162	32	26	563	8	8	14	79	166	13	24

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.97	0.03	1.00	0.15	0.85	1.00	0.35	0.65
Final Sat.:	1700	2839	561	1700	3352	48	1700	256	1444	1700	597	1103

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.06	0.02	0.17	0.17	0.00	0.05	0.05	0.10	0.02	0.02
Crit Moves:	****			****			****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

```

-----
                        Level Of Service Computation Report
                        FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #605 "O" St & "LQ" St
*****
Average Delay (sec/veh):      3.5      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      2      2      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      141  229  128      28  864  27      4  24  82  255  82  14
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  141  229  128      28  864  27      4  24  82  255  82  14
User Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   141  229  128      28  864  27      4  24  82  255  82  14
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   141  229  128      28  864  27      4  24  82  255  82  14
PCE Adj:       1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   141  229  128      28  864  27      4  24  82  255  82  14
-----|-----|-----|-----|
PCE Module:
AutoPCE:       141  229  128      28  864  27      4  24  82  255  82  14
TruckPCE:       0    0    0      0    0    0      0    0    0      0    0    0
ComboPCE:       0    0    0      0    0    0      0    0    0      0    0    0
BicyclePCE:     0    0    0      0    0    0      0    0    0      0    0    0
AdjVolume:     141  229  128      28  864  27      4  24  82  255  82  14
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      56      478      1147      374
MaxVolume:     2384     2080      581      998
PedVolume:        0        0        0        0
AdjMaxVol:     2384     2080      581      998
ApproachVol:     498      919      110      351
ApproachV/C:     0.21     0.44     0.19     0.35
ApproachDel:      1.9      3.1      7.6      5.6
ApproachLOS:      A        A        A        A
Queue:           0.8      2.3      0.7      1.6

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #613 "C" St & "LN" St

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[11.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	16	44	17	11	39	10	23	77	17	34	141	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	44	17	11	39	10	23	77	17	34	141	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	44	17	11	39	10	23	77	17	34	141	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	44	17	11	39	10	23	77	17	34	141	22

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	376	363	86	382	360	152	163	xxxx	xxxxxx	94	xxxx	xxxxxx
Potent Cap.:	585	568	979	580	570	900	1428	xxxx	xxxxxx	1513	xxxx	xxxxxx
Move Cap.:	531	546	979	519	548	900	1428	xxxx	xxxxxx	1513	xxxx	xxxxxx
Volume/Cap:	0.03	0.08	0.02	0.02	0.07	0.01	0.02	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.6	xxxx	xxxxxx	7.4	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	601	xxxxxx	xxxx	580	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.4	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	11.9	xxxxxx	xxxxxx	11.9	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	11.9			11.9			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #615 "C" St & "LQ" St

Average Delay (sec/veh): 6.5 Worst Case Level Of Service: C[22.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	34	31	33	48	76	29	12	164	31	72	319	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	31	33	48	76	29	12	164	31	72	319	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	31	33	48	76	29	12	164	31	72	319	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	34	31	33	48	76	29	12	164	31	72	319	44

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	741	711	180	721	704	341	363	xxxx	xxxxx	195	xxxx	xxxxx
Potent Cap.:	335	361	869	345	364	706	1207	xxxx	xxxxx	1390	xxxx	xxxxx
Move Cap.:	254	339	869	295	342	706	1207	xxxx	xxxxx	1390	xxxx	xxxxx
Volume/Cap:	0.13	0.09	0.04	0.16	0.22	0.04	0.01	xxxx	xxxx	0.05	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	372	xxxxx	xxxx	359	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	2.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.1	xxxxx	xxxxx	22.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	18.1			22.3			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

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

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

```

-----
Level Of Service Computation Report
FHWA Roundabout Method (Base Volume Alternative)
*****
Intersection #626 "LY" St & "LQ" St
*****
Average Delay (sec/veh):      4.7      Level Of Service: A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Yield Sign      Yield Sign      Yield Sign      Yield Sign
Lanes:      1      1      1      1
-----|-----|-----|-----|
Volume Module:
Base Vol:      33      13      21      49      112      48      8      202      49      79      346      13
Growth Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
Initial Bse:      33      13      21      49      112      48      8      202      49      79      346      13
User Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Volume:      33      13      21      49      112      48      8      202      49      79      346      13
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      33      13      21      49      112      48      8      202      49      79      346      13
PCE Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
MLF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
FinalVolume:      33      13      21      49      112      48      8      202      49      79      346      13
-----|-----|-----|-----|
PCE Module:
AutoPCE:      33      13      21      49      112      48      8      202      49      79      346      13
TruckPCE:      0      0      0      0      0      0      0      0      0      0      0      0
ComboPCE:      0      0      0      0      0      0      0      0      0      0      0      0
BicyclePCE:      0      0      0      0      0      0      0      0      0      0      0      0
AdjVolume:      33      13      21      49      112      48      8      202      49      79      346      13
-----|-----|-----|-----|
Delay Module: >> Time Period: 0.25 hours <<
CircVolume:      259      458      240      54
MaxVolume:      1060      953      1070      1171
PedVolume:      0      0      0      0
AdjMaxVol:      1060      953      1070      1171
ApproachVol:      67      209      259      438
ApproachV/C:      0.06      0.22      0.24      0.37
ApproachDel:      3.6      4.8      4.4      4.9
ApproachLOS:      A      A      A      A
Queue:      0.2      0.8      0.9      1.8

```


IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

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

Intersection #627 "LY" St & Irvine Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.538
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Protected			Protected			Protected			Protected						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	0	0	0	0	0	0	3	0	1	1	0	3	0	0

Volume Module:

Base Vol:	48	0	64	0	0	0	0	2108	49	63	1844	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	64	0	0	0	0	2108	49	63	1844	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	0	64	0	0	0	0	2108	49	63	1844	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	0	64	0	0	0	0	2108	49	63	1844	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	0	64	0	0	0	0	2108	49	63	1844	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	1700	0	1700	0	0	0	0	5100	1700	1700	5100	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.36	0.00
Crit Moves:	****						****			****		

IUSD K-8 School
Post 2030 With Project
2012 Modified Project Option 2

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #629 "LY" St & "LN" St

Average Delay (sec/veh): 8.5 Worst Case Level Of Service: B[12.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	8	11	11	13	93	9	6	56	39	93	124	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	11	11	13	93	9	6	56	39	93	124	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	11	11	13	93	9	6	56	39	93	124	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	11	11	13	93	9	6	56	39	93	124	14

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	102	xxxx	xxxxxx	22	xxxx	xxxxxx	225	162	98	204	161	17
Potent Cap.:	1503	xxxx	xxxxxx	1607	xxxx	xxxxxx	735	734	964	759	735	1068
Move Cap.:	1503	xxxx	xxxxxx	1607	xxxx	xxxxxx	624	725	964	678	726	1068
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.08	0.04	0.14	0.17	0.01

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	793	xxxxxx	xxxx	719	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	1.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.2	xxxxxx	xxxxxx	12.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx				10.2			12.4	
ApproachLOS:	*			*				B			B	

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

Right Turn Capacity Utilization Adjustment Calculation

Intersection #1 Driveway 1 (NS) & "VV" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0.5	1.5	0	0	1.5	0.5
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	170	3230	0	0	2550	850
0	0	0	0	0	0	5	95	0	0	21	89
0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.01	0.10
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBL		Direction	WBT	
V/C	0.00		V/C	0.00		V/C	0.03		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.01	
RTOR	0.01		RTOR	0.03		RTOR	0.00		RTOR	0.00	
RTC	0.01		RTC	0.02		RTC	0.04		RTC	0.01	
Addl ICU	-0.01		Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	0.10	
0.00			0.00			0.00			0.10		
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											0.18

Right Turn Capacity Utilization Adjustment Calculation

Intersection #2 "LM" St (NS) & Driveway 2 (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1.5	0.5	0.5	1.5	0	0	0	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	2550	850	150	3250	0	0	0	0	1214	0	486
0	21	15	7	152	0	0	0	0	10	0	4
0.00	0.01	0.02	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Critical Movements											
Direction	NBT		Direction	SBL		Direction	N/A		Direction	WBL	
V/C	0.01		V/C	0.05		V/C	0.00		V/C	0.01	
Right Turn Capacity Adjustment											
RTOG	0.01		RTOG	0.06		RTOG	-0.01		RTOG	0.01	
RTOR	0.01		RTOR	0.01		RTOR	0.01		RTOR	0.05	
RTC	0.01		RTC	0.06		RTC	0.00		RTC	0.04	
Addl ICU	0.00		Addl ICU	-0.06		Addl ICU	0.00		Addl ICU	-0.04	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.063
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.12

Right Turn Capacity Utilization Adjustment Calculation

Intersection #3 "LM" St (NS) & Driveway 3 (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	2	0	0	2	0	0	0	0	1	0	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	3400	0	0	3400	0	0	0	0	1700	0	1700
0	24	0	0	107	0	0	0	0	51	0	30
0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	N/A		Direction	WBL	
V/C	0.00		V/C	0.03		V/C	0.00		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	0.03		RTOG	-0.03		RTOG	0.03	
RTOR	0.03		RTOR	0.03		RTOR	0.00		RTOR	0.02	
RTC	0.05		RTC	0.05		RTC	-0.03		RTC	0.05	
Addl ICU	-0.05		Addl ICU	-0.05		Addl ICU	0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.061
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.11

Right Turn Capacity Utilization Adjustment Calculation

Intersection #4 Driveway 4 (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	0	0	0	0	0	0	1	1	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
0	0	0	0	0	0	0	1700	1700	1700	1700	0
0	0	0	0	0	0	0	60	74	207	61	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.12	0.04	0.00
Critical Movements											
Direction	N/A		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.00		V/C	0.00		V/C	0.04		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.00		RTOG	0.00		RTOG	0.04		RTOG	0.16	
RTOR	0.12		RTOR	0.12		RTOR	0.00		RTOR	0.00	
RTC	0.09		RTC	0.09		RTC	0.04		RTC	0.16	
Addl ICU	-0.09		Addl ICU	-0.09		Addl ICU	0.01		Addl ICU	-0.16	
0.00			0.00			0.01			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.157											
Right Turn Adjustment											
0.01											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.22											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #5 Driveway 5 (NS) & "LN" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	1700	0	1120	580	0
61	0	47	0	0	0	0	70	0	110	57	0
0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.04		V/C	0.00		V/C	0.04		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	-0.04		RTOG	0.04		RTOG	0.14	
RTOR	0.10		RTOR	0.04		RTOR	0.04		RTOR	0.04	
RTC	0.11		RTC	-0.01		RTC	0.07		RTC	0.17	
Addl ICU	-0.08		Addl ICU	0.01		Addl ICU	-0.07		Addl ICU	-0.17	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.175											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.23											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #557 "O" St (NS) & "C" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
504	2896	96	297	3103	697	1218	482	470	382	1318	395
31	178	7	46	481	181	43	17	21	20	69	60
0.06	0.06	0.06	0.16	0.17	0.17	0.04	0.04	0.04	0.05	0.08	0.08
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.17		V/C	0.04		V/C	0.08	
Right Turn Capacity Adjustment											
RTOG	0.08		RTOG	0.17		RTOG	0.06		RTOG	0.08	
RTOR	0.07		RTOR	0.04		RTOR	0.06		RTOR	0.17	
RTC	0.13		RTC	0.20		RTC	0.10		RTC	0.21	
Addl ICU	-0.07		Addl ICU	-0.03		Addl ICU	-0.06		Addl ICU	-0.13	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.346											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.40											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #558 Ridge Valley/"O" St (NS) & Irvine Blvd (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	1	1	2	f	2	3	1	2	3	1
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3400	1700	1700	3400	0	3400	5100	1700	3400	5100	1700
159	128	54	233	480	568	108	1893	193	99	1791	56
0.05	0.04	0.03	0.14	0.14	0.00	0.03	0.37	0.11	0.03	0.35	0.03
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.05		V/C	0.14		V/C	0.37		V/C	0.03	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.14		RTOG	0.37		RTOG	0.37	
RTOR	0.03		RTOR	0.05		RTOR	0.05		RTOR	0.15	
RTC	0.07		RTC	0.18		RTC	0.41		RTC	0.48	
Addl ICU	-0.04		Addl ICU	-0.18		Addl ICU	-0.29		Addl ICU	-0.45	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.588											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.64											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #559 "O" St (NS) & Trabuco Rd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
2	2	0	1	2	1	2	2	1	1	2	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
3400	3194	206	1700	3400	1700	3400	3400	1700	1700	3274	126
146	62	4	25	343	887	525	372	567	23	545	21
0.04	0.02	0.02	0.01	0.10	0.52	0.15	0.11	0.33	0.01	0.17	0.17
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.04		V/C	0.10		V/C	0.15		V/C	0.17	
Right Turn Capacity Adjustment											
RTOG	0.13		RTOG	0.10		RTOG	0.31		RTOG	0.17	
RTOR	0.21		RTOR	0.15		RTOR	0.04		RTOR	0.12	
RTC	0.29		RTC	0.22		RTC	0.34		RTC	0.26	
Addl ICU	-0.27		Addl ICU	0.31		Addl ICU	-0.01		Addl ICU	-0.09	
0.00			0.31			0.00			0.00		
											Initial ICU
											0.465
											Right Turn Adjustment
											0.31
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.82

Right Turn Capacity Utilization Adjustment Calculation

Intersection #603 "O" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2	0	1	2	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	2839	561	1700	3352	48	1700	256	1444	1700	597	1103
19	162	32	26	563	8	8	14	79	166	13	24
0.01	0.06	0.06	0.02	0.17	0.17	0.00	0.05	0.05	0.10	0.02	0.02
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.01		V/C	0.17		V/C	0.05		V/C	0.10	
Right Turn Capacity Adjustment											
RTOG	0.16		RTOG	0.17		RTOG	0.05		RTOG	0.15	
RTOR	0.10		RTOR	0.13		RTOR	0.01		RTOR	0.12	
RTC	0.24		RTC	0.27		RTC	0.06		RTC	0.24	
Addl ICU	-0.18		Addl ICU	-0.10		Addl ICU	-0.01		Addl ICU	-0.22	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.331											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.38											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #605 "O" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	1.5	0.0	0.5	1.5	0.0	0.5	0.5	0.0	0.5	0.5	0.0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1296	2104	914	107	3293	77	243	1457	658	1286	414	124
141	229	128	28	864	27	4	24	82	255	82	14
0.11	0.12	0.12	0.26	0.26	0.26	0.02	0.05	0.05	0.20	0.18	0.18
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.11		V/C	0.26		V/C	0.05		V/C	0.20	
Right Turn Capacity Adjustment											
RTOG	0.11		RTOG	0.26		RTOG	0.05		RTOG	0.23	
RTOR	0.20		RTOR	0.07		RTOR	0.11		RTOR	0.25	
RTC	0.26		RTC	0.32		RTC	0.13		RTC	0.42	
Addl ICU	-0.14		Addl ICU	-0.05		Addl ICU	-0.08		Addl ICU	-0.24	
0.00			0.00			0.00			0.00		
											Initial ICU
											0.622
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.67

Right Turn Capacity Utilization Adjustment Calculation

Intersection #613 "C" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
353	971	375	312	1105	283	334	1119	247	293	1217	190
16	44	17	11	39	10	23	77	17	34	141	22
0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.12	0.12	0.12
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.05		V/C	0.04		V/C	0.07		V/C	0.12	
Right Turn Capacity Adjustment											
RTOG	0.05		RTOG	0.04		RTOG	0.07		RTOG	0.12	
RTOR	0.12		RTOR	0.07		RTOR	0.05		RTOR	0.04	
RTC	0.13		RTC	0.09		RTC	0.10		RTC	0.14	
Addl ICU	-0.09		Addl ICU	-0.05		Addl ICU	-0.03		Addl ICU	-0.03	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.265											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.32											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #615 "C" St (NS) & "LQ" St (EW)											
Scenario:	Post 2030 (2012 Modified Project Option 2) With Project								Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	1	1	0	1	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
590	538	572	533	844	322	1700	1430	270	1700	1494	206
34	31	33	48	76	29	12	164	31	72	319	44
0.06	0.06	0.06	0.09	0.09	0.09	0.01	0.11	0.11	0.04	0.21	0.21
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.06		V/C	0.09		V/C	0.01		V/C	0.21	
Right Turn Capacity Adjustment											
RTOG	0.06		RTOG	0.09		RTOG	0.18		RTOG	0.21	
RTOR	0.11		RTOR	0.01		RTOR	0.06		RTOR	0.09	
RTC	0.14		RTC	0.10		RTC	0.22		RTC	0.28	
Addl ICU	-0.08		Addl ICU	-0.01		Addl ICU	-0.11		Addl ICU	-0.07	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.368											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.42											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #626 "LY" St (NS) & "LQ" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0.5	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5	0.5	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1220	480	525	517	1183	255	65	1635	166	316	1384	31
33	13	21	49	112	48	8	202	49	79	346	13
0.03	0.03	0.03	0.09	0.11	0.11	0.12	0.14	0.14	0.25	0.25	0.25
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.11		V/C	0.14		V/C	0.25	
Right Turn Capacity Adjustment											
RTOG	0.04		RTOG	0.11		RTOG	0.14		RTOG	0.27	
RTOR	0.25		RTOR	0.14		RTOR	0.03		RTOR	0.10	
RTC	0.23		RTC	0.21		RTC	0.16		RTC	0.34	
Addl ICU	-0.20		Addl ICU	-0.10		Addl ICU	-0.02		Addl ICU	-0.09	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.528											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.58											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #627 "LY" St (NS) & Irvine Blvd (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0	1	0	0	0	0	3	1	1	3	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
1700	0	1700	0	0	0	0	5100	1700	1700	5100	0
48	0	64	0	0	0	0	2108	49	63	1844	0
0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.41	0.03	0.04	0.36	0.00
Critical Movements											
Direction	NBL		Direction	N/A		Direction	EBT		Direction	WBL	
V/C	0.03		V/C	0.00		V/C	0.41		V/C	0.04	
Right Turn Capacity Adjustment											
RTOG	0.03		RTOG	-0.03		RTOG	0.41		RTOG	0.45	
RTOR	0.04		RTOR	0.09		RTOR	0.03		RTOR	0.03	
RTC	0.06		RTC	0.04		RTC	0.43		RTC	0.47	
Addl ICU	-0.02		Addl ICU	-0.04		Addl ICU	-0.41		Addl ICU	-0.47	
0.00			0.00			0.00			0.00		
Lanes											
Sat/Lane											
Total Saturation											
Volume											
Vol/Sat											
Initial ICU											
0.479											
Right Turn Adjustment											
0.00											
Clearance Interval											
0.05											
TOTAL CAPACITY UTILIZATION											
0.53											

Right Turn Capacity Utilization Adjustment Calculation

Intersection #629 "LY" St (NS) & "LN" St (EW)											
Scenario: Post 2030 (2012 Modified Project Option 2) With Project									Time Period:		AM
South Leg			North Leg			West Leg			East Leg		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	1	0	0	1	0	0	1	0	0	1	0
1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
453	623	623	192	1375	133	101	943	656	684	913	103
8	11	11	13	93	9	6	56	39	93	124	14
0.02	0.02	0.02	0.07	0.07	0.07	0.06	0.06	0.06	0.14	0.14	0.14
Critical Movements											
Direction	NBL		Direction	SBT		Direction	EBL		Direction	WBT	
V/C	0.02		V/C	0.07		V/C	0.06		V/C	0.14	
Right Turn Capacity Adjustment											
RTOG	0.02		RTOG	0.07		RTOG	0.06		RTOG	0.14	
RTOR	0.14		RTOR	0.06		RTOR	0.02		RTOR	0.07	
RTC	0.12		RTC	0.11		RTC	0.07		RTC	0.19	
Addl ICU	-0.10		Addl ICU	-0.04		Addl ICU	-0.01		Addl ICU	-0.05	
0.00			0.00			0.00			0.00		
											Lanes
											Sat/Lane
											Total Saturation
											Volume
											Vol/Sat
											Initial ICU
											0.281
											Right Turn Adjustment
											0.00
											Clearance Interval
											0.05
TOTAL CAPACITY UTILIZATION											0.33