# *TRAFFIC STUDY*

***For***

# *HOMELAND ESTATES*
# *(TM 5362, ER 04-08-010)*

***in the County of San Diego***

***Submitted To:***

***Standard Pacific Homes.***

***Submitted By:***

***Darnell & Associates, Inc.***

***Revised December 23, 2005***
***(Revised June 1, 2005)***
***(Revised February 1, 2005)***
***(Original July 6, 2004)***

**Darnell** & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

December 23, 2005

Mr. Jeffrey Clarke, Project Manager
Standard Pacific Homes
5750 Fleet Street, Suite 200
Carlsbad, CA 92008

D&A Ref. No: 040601

Subject: Revised Traffic Impact Study for the Proposed Homeland Estates (TM 5362, ER 04-08-010) Project

Dear Mr. Clarke:

In response to the County of San Diego's December 21, 2005 comments, Darnell & Associates, Inc. (D&A) has revised our June 1, 2005 traffic study to assess the impacts associated with the proposed Homeland Estates project located west of Interstate 15, on the north side of Clarence Lane between Miller Avenue and Alexander Drive in the County of San Diego.

This traffic study analyzes the project's potential traffic impact on circulation roadways and intersections. The report assesses the significance of the project traffic impacts and any mitigation measures required to reduce the impacts to a level of insignificance.

Please call me if you have any questions or need additional information.

Sincerely,

DARNELL & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
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Date Signed: 12/23/05

BED/bh/vsh
040601-HomelandEstates-RPT4-12-23-05/12-05

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*Submitted To:*

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*5750 Fleet Street, Suite 200*
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*Submitted By:*

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*December 23, 2005*
*040601-HomelandEstates-RPT4-12-23-05/12-05*

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## EXECUTIVE SUMMARY

The proposed Homeland Estates residential development consists of nine (9) dwelling units located west of Interstate 15 on the north side of Clarence Lane between Miller Avenue and Alexander Drive in the County of San Diego. It should be noted that the original project consisted of ten (10) dwelling units, but was recently reduced to the current project size of nine (9) dwelling units. The analysis within this report addresses the development of ten (10) dwelling units to assess the worst-case scenario.

The project will generate approximately 120 daily trips with 10 morning peak hour trips and 12 evening peak hour trips.

Existing Plus Project analysis demonstrated that the project has no significant impacts on intersections or roadway segments and is not required to participate in offsite improvements.

Near Term Cumulative conditions showed all intersections operate at acceptable levels of service with or without the proposed project. The project is not considered to have a cumulative impact, nor is it considered cumulatively significant based on thresholds established in this study for intersections.

Near Term Cumulative impacts were identified on County roadway links. To mitigate cumulative impacts on County roadway links, the project will contribute to the adopted Traffic Impact Fees (TIF) based on development of 10 dwelling units. For roadways within the City of Escondido, the project does not meet City of Escondido significance criteria and is not required to mitigate City streets.

Year 2030 conditions demonstrated that all intersections and roadway segments operate acceptably, with and without the project. The project does not meet cumulative impact thresholds for significant impacts. No offsite mitigation is required of the project for this condition.

Project access operates at acceptable levels of service with stop controlled exit.

All project driveways and private streets are required to maintain County minimum spacing distances of 200 feet from other driveways and/or private streets. Driveways and private streets which do not meet the minimum 200 foot requirement will be required to process a design exception.

The project is responsible for maintaining adequate corner and stopping sight distance from all driveways and private streets to the satisfaction of the Director of Public Works.

## SECTION I – INTRODUCTION & METHODOLOGIES

### PROJECT DESCRIPTION

The proposed Homeland Estates residential development consists of nine (9) dwelling units located west of Interstate 15 on the north side of Clarence Lane between Miller Avenue and Alexander Drive in the County of San Diego. It should be noted that the original project consisted of ten (10) dwelling units, but was recently reduced to the current project size of nine (9) dwelling units. The analysis within this report addresses the development of ten (10) dwelling units to assess the worst-case scenario.

Primary access for the project is from Street "A" (on-site) to Miller Avenue. Driveways are also shown on Alexander Drive north of Clarence Lane for two lots. Figure 1 illustrates the location of the project site. Figure 2 shows the site plan for the proposed residential development.

### CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. In 1991, San Diego County adopted their initial CMP statutes. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed project will generate 120 average daily trips, 10 AM peak hour trips, and 12 PM peak hour trips, and is therefore, not subject to CMP guidelines for traffic impact studies.

### SCENARIOS STUDIED

**Existing Conditions** refers to that condition which exists on the ground today, including existing traffic counts and existing lane configurations at intersections and on roadway segments.

**Existing Plus Project Conditions** refers to that condition which includes the project traffic added onto existing volumes. Analysis is first conducted using the existing street configurations, and mitigation is added if required.

**Near Term Cumulative Without Project Conditions** refers to that condition which includes approved/ pending projects in the study area plus the existing traffic volumes. This scenario includes growth of 2% per year for three years over the existing condition in addition to known cumulative projects. This scenario shows the impact without the project.

**Near Term Cumulative With Project Conditions** refers to that condition which includes approved/ pending projects in the sphere of influence of the study area plus the project traffic plus the existing traffic volumes (with growth). This scenario shows the impact with the project. Analysis is first conducted using the existing street configurations, and mitigation is added if required.

**2030 Base Conditions** refers to that condition which would exist in the Year 2030 without the addition of the proposed project. For the Year 2030 it has been assumed that all the roadway segments in the vicinity of the project would be built out to their ultimate Circulation Element classification. This scenario shows the impact without the project.

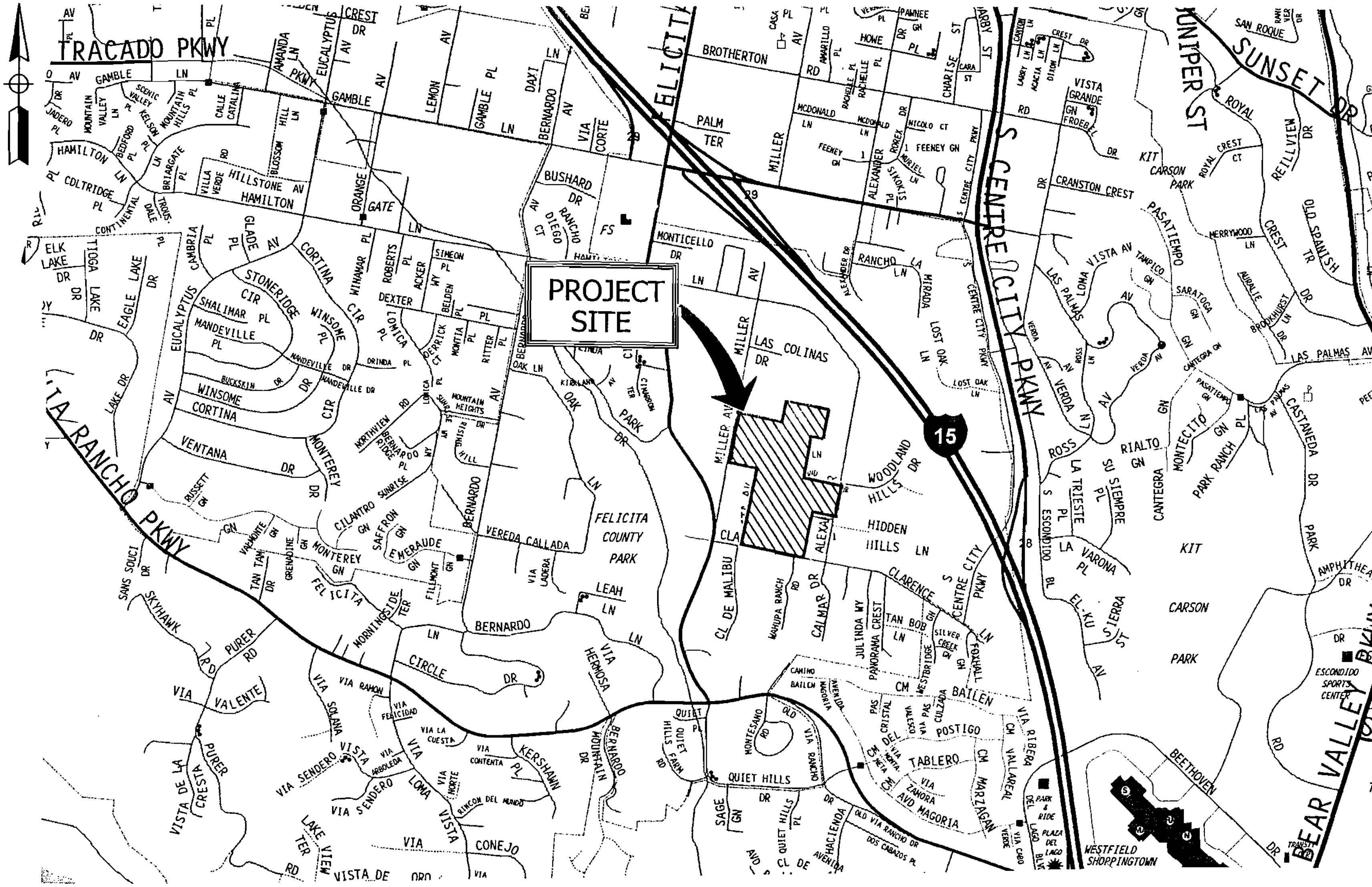


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FIGURE 1

VICINITY MAP

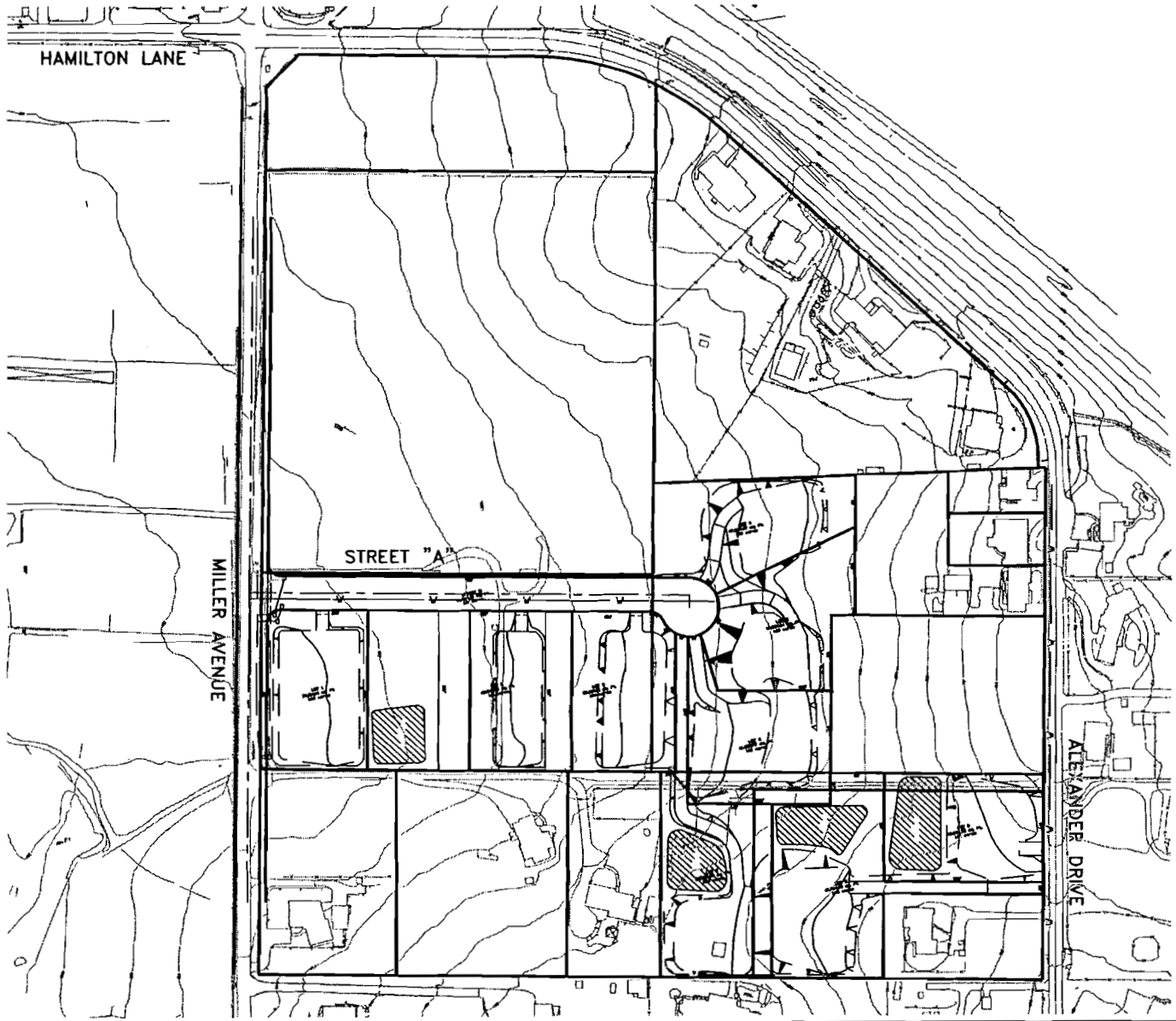


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FIGURE 2

SITE PLAN

**2030 Plus Project Conditions** refers to that condition which will exist in the Year 2030 with the addition of the proposed project. This scenario shows the impact with the project.

## LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. Table 1 shows the ADT and delay ranges that are equivalent to each level of service.

**Table 1 - Level of Service Ranges**

| Level of Service | Roadway Segments – Average Daily Traffic (ADT) Volume[1] | Signalized Intersections - Delay (Seconds/Vehicle)[2] | Unsignalized Intersections - Delay (Seconds/Vehicle)[2] |
|---|---|---|---|
| A | Less Than 1,900 | Less Than or Equal to 10.0 | Less Than or Equal to 10.0 |
| B | 1,900 to 4,100 | 10.1 to 20.0 | 10.1 to 15.0 |
| C | 4,100 to 7,100 | 20.1 to 35.0 | 15.1 to 25.0 |
| D | 7,100 to 10,900 | 35.1 to 55.0 | 25.1 to 35.0 |
| E | 10,900 to 16,200 | 55.1 to 80.0 | 35.1 to 50.0 |
| F | Greater Than 16,200 | Greater than 80.0 | Greater than 50.0 |

[1] The volume ranges are based on the County of San Diego Circulation Element of a Light Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix A.
[2] The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM).

## ANALYSIS METHODOLOGY

The roadway segment daily LOS was determined by comparing the average daily traffic (ADT) volumes under all traffic scenarios analyzed to the capacity of the roadway according to its roadway cross-section and classification. For the purpose of this report, the daily traffic volumes of the roadway segments in the vicinity of the project were compared to the County of San Diego Level of Service classification thresholds.

The analysis of signalized/unsignalized intersections utilized the operational analysis procedure provided by the Highway Capacity Software (HCS), which is based on the methodologies outlined in the 2000 Highway Capacity Manual (HCM). This method defines Level of Service in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (vphpl) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e. percentage trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane).

## ORGANIZATION OF REPORT

Following this introduction, Section II introduces the existing base condition. Section III discusses trip generation and trip distribution associated with the proposed project. Section IV provides the impact analysis of all conditions, including introduction of cumulative projects and year 2030 traffic volumes. Section V discusses the access requirements. Section VI summarizes any direct and cumulative mitigation, and Section VII summarizes the reports findings and conclusions.

## SECTION II - EXISTING CONDITIONS

This section represents the existing condition in the field as of the original date of this study.

### ROADWAY CHARACTERISTICS

**Felicita Road** is a north/south two-lane facility, typically with a painted double centerline, no shoulder, no bike lanes, no edge line, asphalt curb on both sides, and speed limit posted at 45 mph. Pavement width just north of Via Rancho Parkway is approximately 30 feet; just south of Clarence Lane is 37 feet; between Clarence Lane and Miller Avenue 39'; and north of Miller Avenue approximately 38 feet. For the purposes of this analysis, Felicita Road was assumed to operate as a two-lane Light Collector with a maximum daily traffic capacity of 10,900 ADT at LOS D. The future classification for Felicita Road is a four-lane Collector with a capacity of 30,800 ADT at LOS D.

**Via Rancho Parkway** is an east/west facility, providing two lanes with a painted centerline and varying shoulder width from 2-5 feet, posted at 45 mph. East of Felicita Road, Via Rancho Parkway provides asphalt curb on both sides and a pavement width of approximately 36 feet. West of Felicita Road, the pavement width is approximately 33-1/2 feet. Via Rancho Parkway operates as a two-lane Light Collector with a maximum capacity of 10,900 ADT at LOS D. The ultimate classification of Via Rancho Parkway west of I-15 is a four-lane Major Road with a capacity of 33,400 ADT at LOS D. From I-15 to Bear Valley Parkway, Via Rancho Parkway is identified as a Prime Arterial with a capacity of 50,000 ADT at LOS D.

**Miller Avenue** is a north-south local residential roadway with a recommended maximum capacity of 1,500 daily vehicles per day. Miller Avenue has no pavement striping, no shoulder, no curbs, and has a pavement width of approximately 24'-9".

**Clarence Lane** is an east-west residential collector with a painted centerline, no posted speed limit, no shoulder, no curb, no edge line. Pavement width east of Felicita Road is approximately 23'; west of Alexander Drive 23', and east of Alexander Drive approximately 24'. Clarence Lane operates as a residential collector with a recommended maximum capacity of 4,500 vehicles per day.

**Alexander Drive** is a north/south local residential road with a painted centerline, no shoulder, no posted speed limit and no curb. Pavement width north of Clarence Lane is approximately 24'-7". Alexander Drive has a recommended maximum daily capacity of 1,500 vehicles per day.

**Center City Parkway** is a north/south collector from Clarence Lane to the I-15 freeway, where it meets the arterial section of Center City Parkway. This section provides two lanes and is generally improved on both sides. This section of Center City Parkway functions as a residential collector with a maximum capacity of 4,500 vehicles per day.

Figure 3 demonstrates the lane geometries used for the existing conditions analysis.

Existing traffic volumes at most locations were obtained in June 2004, and October 2004 for the freeway ramps. A copy of traffic counts is provided in Appendix A. Figure 4 presents the existing traffic volumes at study intersections (AM/PM) and on roadway segments (24 hour).

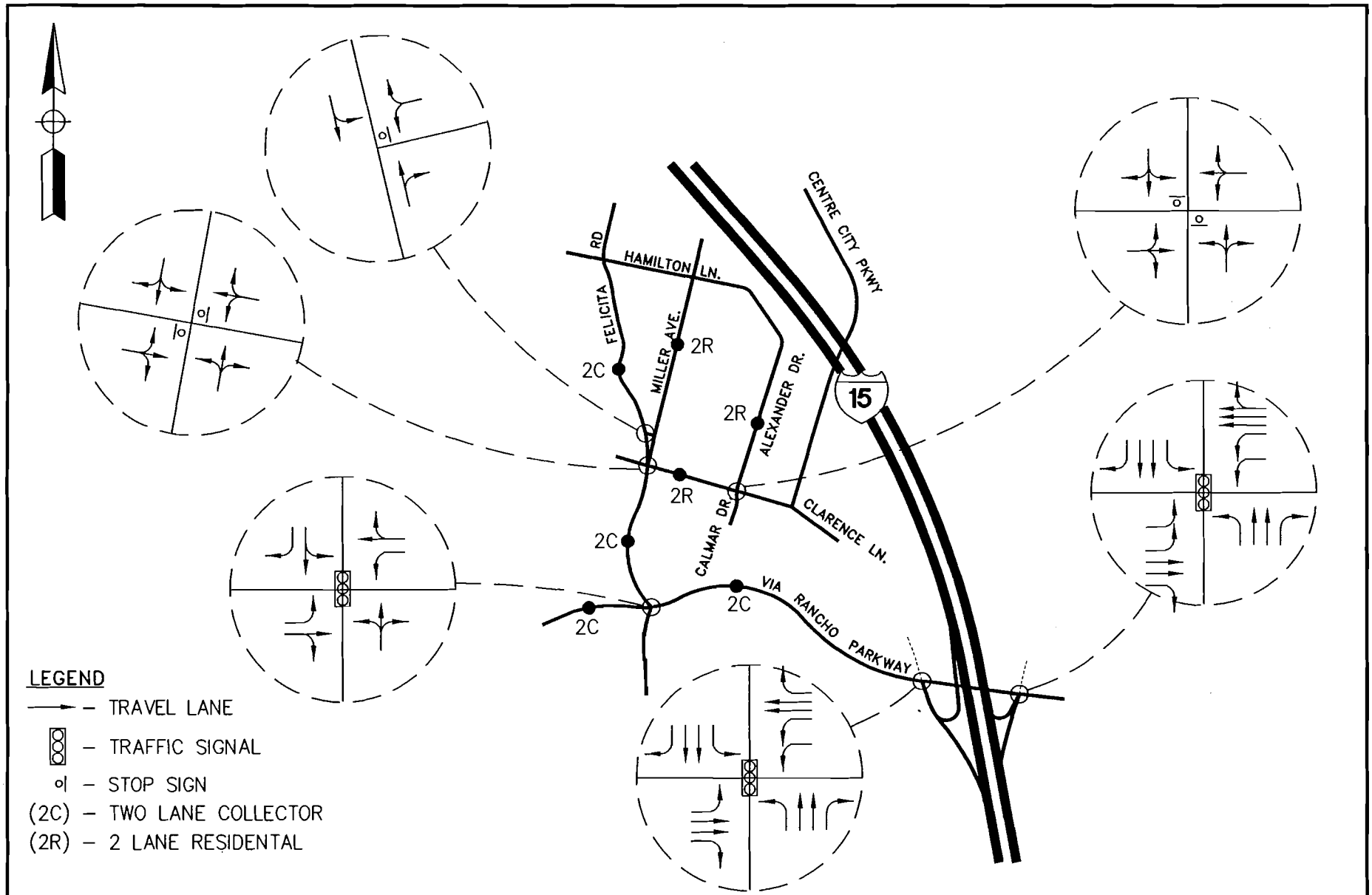


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FIGURE 3

EXISTING CONDITIONS

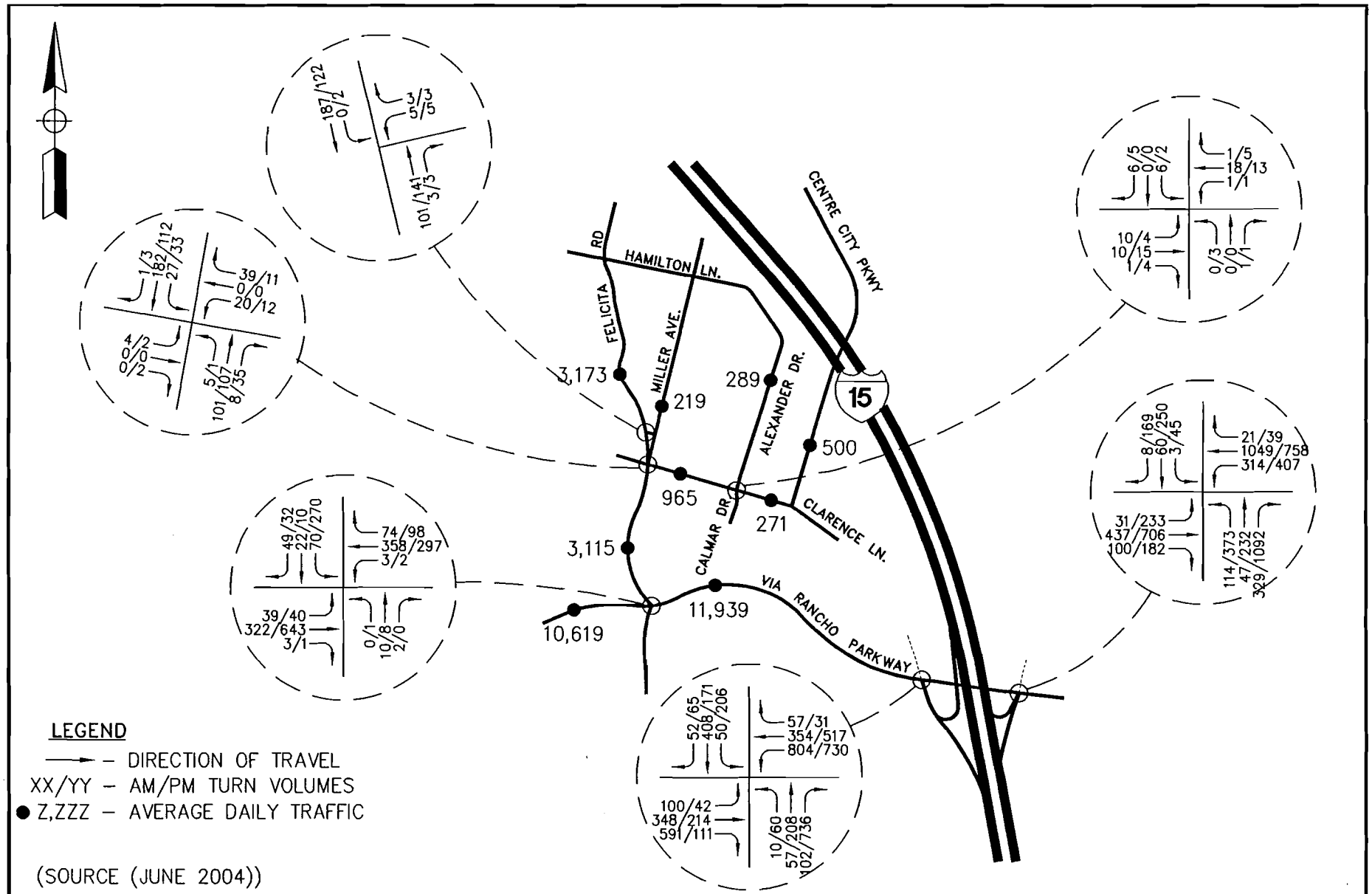


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FIGURE 4

EXISTING TRAFFIC

## EXISTING CONDITIONS LEVEL OF SERVICE

### Roadway Segments

Table 2 summarizes the existing conditions roadway segment operation. As shown on Table 2, the segment of Via Rancho Parkway from Felicita Road to Interstate 15 reports a deficient LOS E condition.

**Table 2 - Existing Roadway Segment Level of Service Summary**

| Segment | Capacity @ LOS E | Existing Conditions | | |
|---|---|---|---|---|
| | | ADT | V/C | LOS |
| Via Rancho: w/o Felicita | 16,200 | 10,619 | 0.655 | D |
| Via Rancho: Felicita/I-15 | 16,200 | 11,939 | 0.737 | E |
| Felicita: Hamilton/Miller | 16,200 | 3,173 | 0.196 | B |
| Felicita: Clarence/Via Rancho | 16,200 | 3,115 | 0.192 | B |
| Clarence: Miller/Alexander | 4,500 | 965 | N/A | <C |
| Clarence: e/o Alexander | 4,500 | 271 | N/A | <C |
| Miller: Hamilton/Clarence | 1,500 | 219 | N/A | <C |
| Alexander: Hamilton/Clarence | 1,500 | 289 | N/A | <C |
| Center City: n/o Clarence | 4,500 | 500 | N/A | <C |

LOS=level of service; ADT=Average daily traffic; V/C=volume to capacity ratio;
<C=better than LOS C
N/A = not applicable (LOS is not applicable to non-circulation element roadways)
LOS E Capacity per County of San Diego Public Road Standards

### Intersections

Table 3 summarizes existing intersection operation. As shown on Table 3, all study intersections operate at an acceptable LOS D or better. A copy of the HCS worksheets for existing conditions can be found in Appendix B.

**Table 3 - Existing Intersection Level of Service Summary**

| Intersection | Critical Movement | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|
| | | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| Via Rancho Pkwy @ I-15 Northbound | Intersection | 27.5 | C | 33.1 | C |
| Via Rancho Pkwy @ I-15 Southbound | Intersection | 36.9 | D | 37.8 | D |
| Via Rancho Pkwy @ Felicita | Intersection | 38.2 | D | 36.3 | D |
| Clarence @ Alexander | EB | 7.2 | A | 7.2 | A |
| | WB | 7.2 | A | 7.2 | A |
| | NB | 8.3 | A | 8.7 | A |
| | SB | 8.6 | A | 8.5 | A |
| Clarence @ Felicita | EB | 11.5 | B | 9.8 | A |
| | WB | 9.9 | A | 10.0 | A |
| | NB | 7.6 | A | 7.4 | A |
| | SB | 7.5 | A | 7.5 | A |
| Felicita @ Miller | SB | 7.4 | A | 7.5 | A |
| | WB | 9.6 | A | 9.6 | A |

Delay is measured in seconds per vehicle; LOS = Level of Service; Delay and LOS calculated using HCS 4.1d
EB = eastbound Approach; WB = Westbound Approach; NB = Northbound Approach; SB = Southbound Approach

## SECTION III - PROPOSED PROJECT TRIP GENERATION & DISTRIBUTION

### TRIP GENERATION

The proposed project consists of nine (9) single family dwelling units. It should be noted that the original project consisted of ten (10) dwelling units, but was recently reduced to the current project size of nine (9) dwelling units. The analysis within this report addresses the development of ten (10) dwelling units to assess the worst-case scenario. Trip rates for this project were obtained from the San Diego Association of Governments (SANDAG) Trip Generation Guide, April 2002. Trip generation for the project is summarized on Table 4. As shown on Table 4, the project will generate approximately 120 daily trips with 10 morning peak hour and 12 evening peak hour trips.

**Table 4 - Trip Generation Rates & Calculations**

**Trip Generation Rates**

| Land Use | Daily Trip Generation Rate | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | Total - % of Daily | % In | % Out | Total - % of Daily | % In | % Out |
| Single Family Estates | 12/dwelling unit | 8% | 30% | 70% | 10% | 70% | 30% |

**Trip Generation Calculations**

| Land Use | Total No. of Units | Daily Trips | AM Peak Hour Trips | | | PM Peak Hour Trips | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total | In | Out | Total | In | Out |
| Single Family Estates | 10 | 120 | 10 | 3 | 7 | 12 | 8 | 4 |

Source: Trip Generation Rates for single family based on SANDAG Trip Generation Guide, April 2002

### TRIP DISTRIBUTION

Trip distribution for the proposed project was calculated using the SANDAG Select Zone Assignment. Figure 5 demonstrates the project trip distribution percentages as determined by the Select Zone.

Figure 6 shows the project related traffic calculated at intersections and on roadway segments.

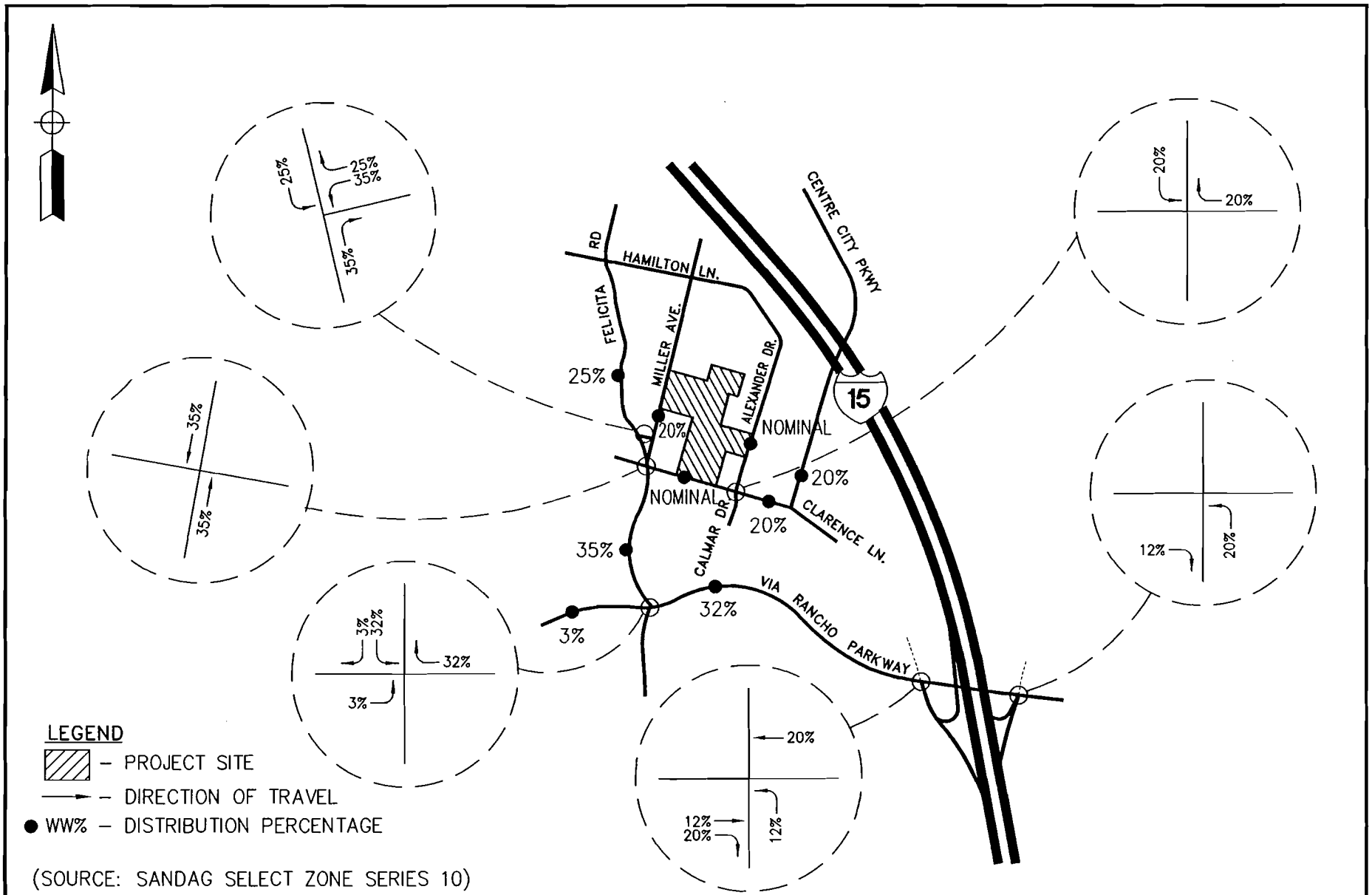


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FIGURE 5

PROJECT DISTRIBUTION

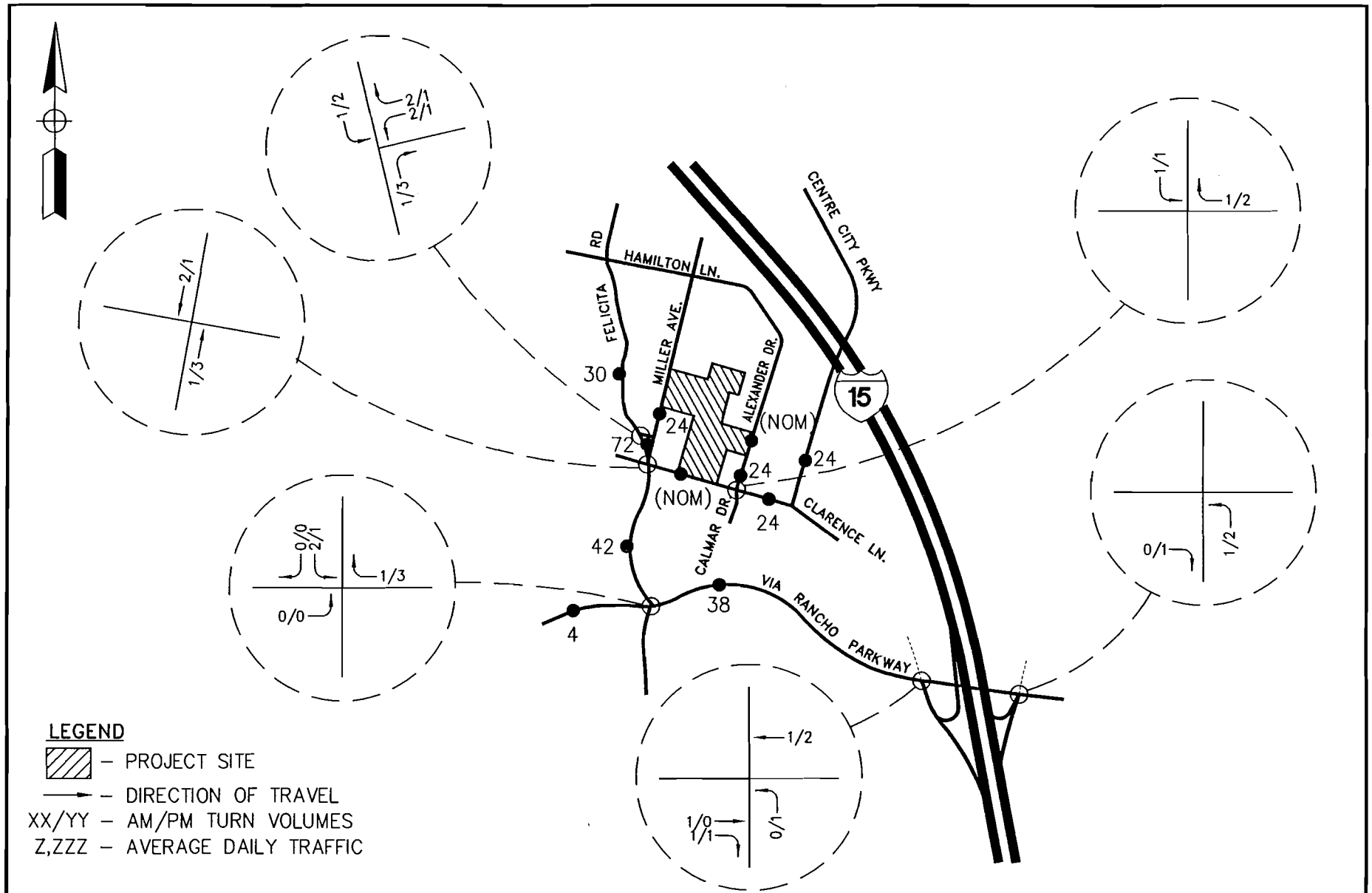


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FIGURE 6

PROJECT TRAFFIC

## SECTION IV - IMPACTS

### PUBLIC FACILITIES ELEMENT IN COUNTY

According to page XII-4-18 of the *Public Facility Element* for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make "improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below 'D' on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS "E" or "F", either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to "D" or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines."

The *Public Facility Element* for the County of San Diego also requires that all on-site Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures.

### LEVELS OF SIGNIFICANCE STANDARDS

The County of San Diego has recently adopted level of significance standards for direct and cumulative project impacts. These are summarized as follows:

#### Roadway Segments

The project is deemed to have a significant direct project impact on a roadway segment if:

> The additional or redistribution of ADT generated by the project will cause an adjacent or nearby County Circulation Element roadway to operate below LOS D and will significantly increase congestion as identified in Table 5 and/or;
>
> The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity, and/or;
>
> The addition or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road, State Highway or intersection currently operating at LOS E or LOS F as identified in Table 5.

#### Signalized Intersections

The project is deemed to have a significant direct project impact at a signalized intersection if:

> The additional or redistribution of ADT generated by the project will cause signalized intersection to operate below LOS D and will significantly increase congestion as identified in Table 5 and/or;
>
> The addition or redistributed ADT generated by the proposed project will significantly increase congestion at a signalized intersection currently operating at LOS E or LOS F as identified in Table 5.

**Unsignalized Intersections**

The project is deemed to have a significant direct project impact at an unsignalized intersection if:

The proposed project generates 20 or more peak hour trips to a critical turn movement and cause the unsignalized intersection to operate below LOS D, or

The proposed project generates 20 or more peak hour trips to a critical turn movement and the unsignalized intersection currently operates at LOS E, or

The proposed project generates 5 or more peak hour trips to a critical turn movement and cause the unsignalized intersection to operate below LOS E, or

The proposed project generates 5 or more peak hour trips to a critical turn movement and the unsignalized intersection currently operates at LOS F.

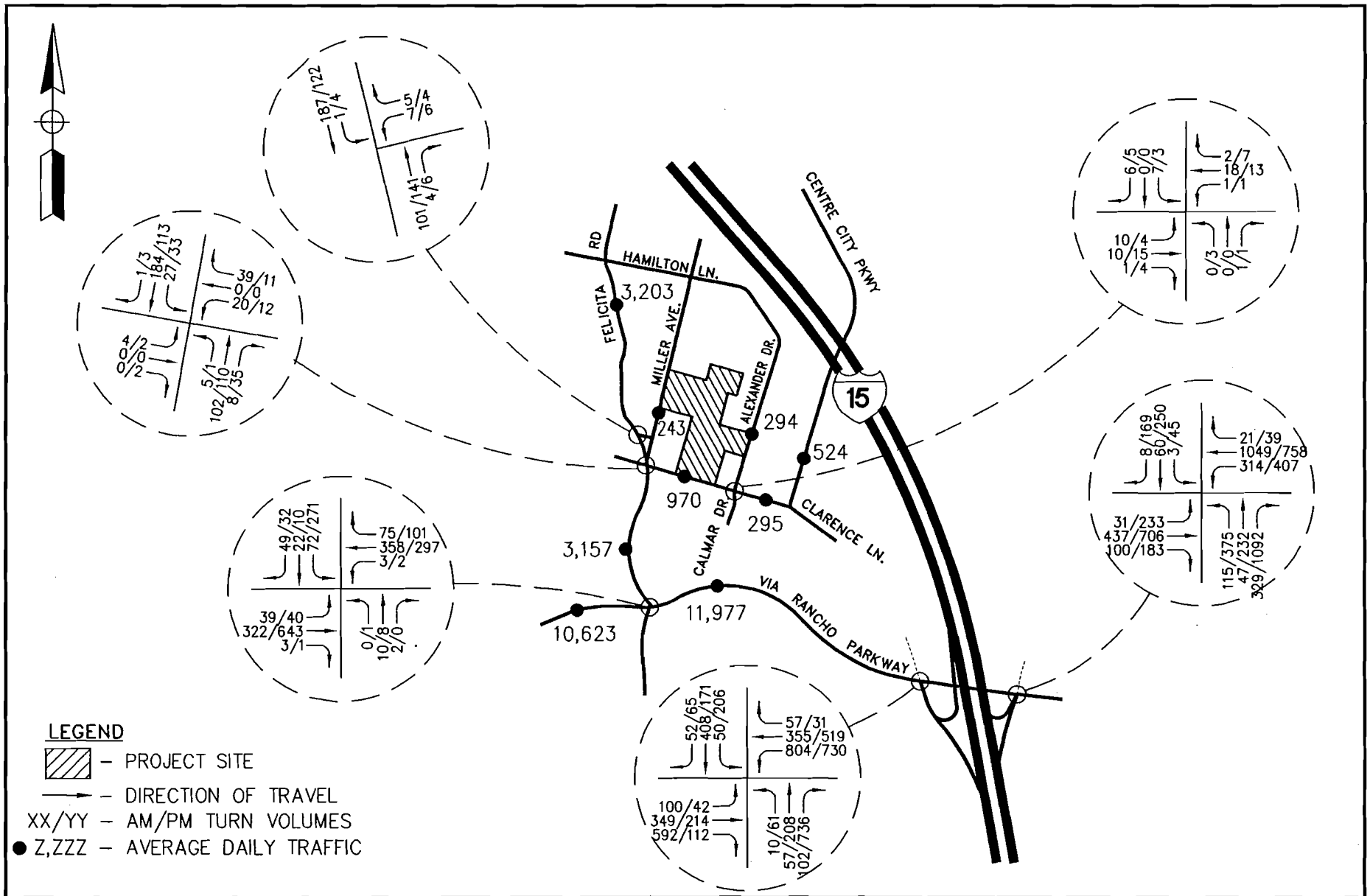
| Table 5 - Measures of Significant Project Impacts | | | |
|---|---|---|---|
| **Roadway Segments** | | | |
| **Level of Service** | **2-lane Roadway** | **4-lane Roadway** | **6-lane Roadway** |
| LOS E | 200 ADT | 400 ADT | 600 ADT |
| LOS F | 100 ADT | 200 ADT | 300 ADT |
| **Intersections** | | | |
| **Level of Service** | **Signalized** | **Unsignalized** | |
| LOS E | Delay of 2 Seconds | 20 peak hour to Critical Movement | |
| LOS F | Delay of 1 Second, or 5 peak hour trips to a Critical Movement | 5 peak hour to trips to a Critical Movement | |
| **Allowable Increases On Circulation Element Roads/Intersections** | | | |
| **Level of Service** | **Roadway Segments** | **Intersections** | |
| LOS E&F | 0.02 Increase to V/C or 1 miles per hour speed | 2.0 seconds of delay | |
| LOS = level of service; ADT = average daily traffic; V/C = volume to capacity ratio | | | |

It should be noted that the significance thresholds summarized in Table 5 are currently only utilized by the County of San Diego to determine if a project has a significant direct impact. A project is considered to have a significant near term cumulative impact if it adds any traffic to a roadway segment and/or intersection that operates at LOS E or F under near term cumulative conditions.

In the City of Escondido, significant impacts are identified at intersections where the project adds more than 2.0 seconds of delay at LOS E or LOS F operation. On roadway segments, the project must increase the volume to capacity ratio by more than 0.02 on LOS E or F operation.

## EXISTING PLUS PROJECT LEVEL OF SERVICE

Project traffic was added to the existing condition. Existing plus project traffic volumes are shown on Figure 7.

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# FIGURE 7

## EXISTING + PROJECT TRAFFIC

**Roadway Segments**

Existing plus project roadway segment level of service is summarized on Table 6. As shown on Table 6, the following roadway segment reports a deficiency:

> **Via Rancho Parkway: Felicita Road to Interstate 15** - operates at LOS E with or without the project. The project does not meet significance criteria on this segment and is not considered to have a direct impact.

**Table 6 - Existing Plus Project Roadway Segment Level of Service Summary**

| Segment | Capacity at LOS E | Existing Conditions | | | Existing Plus Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | ΔV/C | Project Traffic | Proj. Signif? |
| Via Rancho: w/o Felicita | 16,200 | 10,619 | 0.655 | D | 10623 | 0.656 | D | 0.001 | 4 | No |
| Via Rancho: Felicita/I-15 | 16,200 | 11,939 | 0.737 | E | 11977 | 0.739 | E | 0.003 | 38 | No |
| Felicita: Hamilton/Miller | 16,200 | 3,173 | 0.196 | B | 3203 | 0.198 | B | 0.002 | 30 | No |
| Felicita: Clarence/Via Rancho | 16,200 | 3,115 | 0.192 | B | 3157 | 0.195 | B | 0.003 | 42 | No |
| Clarence: Miller/Alexander | 4,500 | 965 | N/A | <C | 970 | N/A | <C | N/A | 5 | No |
| Clarence: e/o Alexander | 4,500 | 271 | N/A | <C | 295 | N/A | <C | N/A | 24 | No |
| Miller: Hamilton/Clarence | 1,500 | 219 | N/A | <C | 243 | N/A | <C | N/A | 24 | No |
| Alexander: Hamilton/Clarence | 1,500 | 289 | N/A | <C | 294 | N/A | <C | N/A | 5 | No |
| Center City: n/o Clarence | 4,500 | 500 | N/A | <C | 524 | N/A | <C | N/A | 24 | No |

LOS=level of service; ADT=Average daily traffic; V/C=volume to capacity ratio; <C=better than LOS C
N/A = not applicable (LOS is not applicable to non-circulation element roadways); ΔV/C = Change in volume to capacity ratio
Project significance based on County thresholds; LOS E Capacity per County of San Diego Public Road Standards

**Intersections**

Intersection operation for existing plus project conditions is summarized on Table 7. As shown on Table 7, all intersections operate acceptably with the addition of the project. No mitigation is required.

## NEAR TERM CUMULATIVE CONDITIONS (WITHOUT PROJECT)

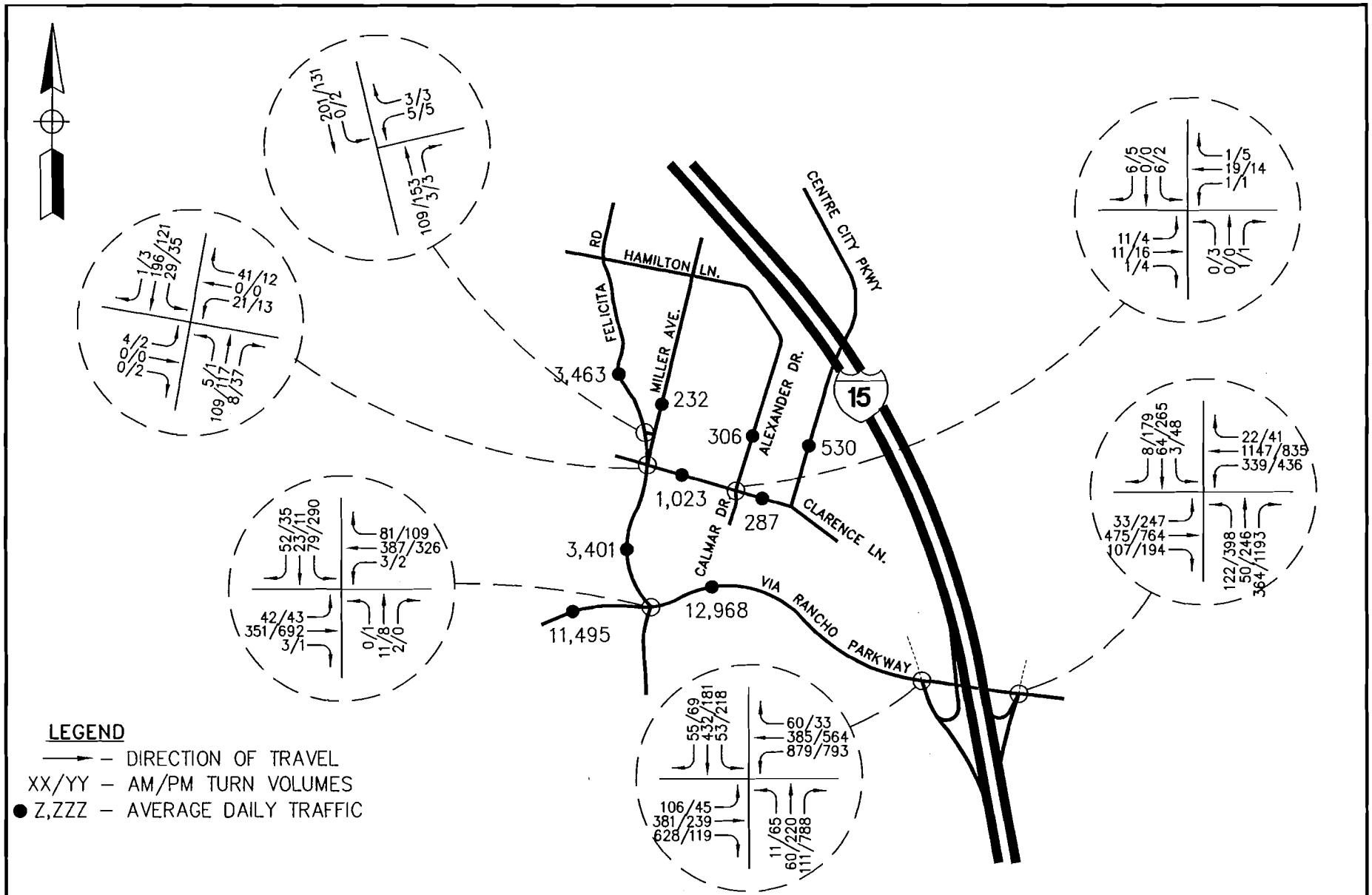
Other approved/pending projects traffic was generated through research of County records in the project area. The research generated over 100 applications from the County of San Diego within the North County Metro area. These projects were identified for traffic generators as some projects included unmanned wireless antennae, home additions, patios, or other non-traffic generators. The cumulative project count list for traffic generators was reduced to approximately 30 projects to be included in the cumulative analysis. A detailed listing of all projects considered for analysis is provided in Appendix B.

Cumulative projects were divided into traffic analysis zones based on location and traffic was generated and distributed based on each land use density and zone proximity. Cumulative project traffic zones and related trip generation are also provided in Appendix E. Distribution of traffic was conducted and assigned to the study area intersections and roadway segments.

In addition, a growth rate of 2% per year for three (3) years was added to the base volume to account for projects which may not be included in the cumulative list, or those small projects which may be processed after the date of this study. The cumulative project traffic was added to the existing traffic volumes plus the growth rate. The resulting cumulative project traffic volumes (without the project) are shown on Figure 8.

| Table 7 - Existing Plus Project Intersection Level of Service Summary | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Intersection | Critical Movement | Existing | | Existing Plus Project | | | | |
| | | Delay sec/veh | LOS | Delay sec/veh | LOS | Δ Delay | Proj. Traffic | Proj. Signif? |
| **AM Peak Hour** | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Intersection | 27.5 | C | 27.5 | C | 0.0 | 1 | No |
| Via Rancho Pkwy @ I-15 SB | Intersection | 36.9 | D | 37 | D | 0.1 | 3 | No |
| Via Rancho Pkwy @ Felicita | Intersection | 38.2 | D | 38.3 | D | 0.1 | 3 | No |
| Clarence @ Alexander | EB | 7.2 | A | 7.3 | A | 0.1 | 0 | No |
| | WB | 7.2 | A | 7.2 | A | 0.0 | 1 | |
| | NB | 8.3 | A | 8.3 | A | 0.0 | 0 | |
| | SB | 8.6 | A | 8.7 | A | 0.1 | 1 | |
| Clarence @ Felicita | EB | 11.5 | B | 11.6 | B | 0.1 | 0 | No |
| | WB | 9.9 | A | 9.9 | A | 0.0 | 0 | |
| | NB | 7.6 | A | 7.6 | A | 0.0 | 1 | |
| | SB | 7.5 | A | 7.5 | A | 0.0 | 2 | |
| Felicita @ Miller | SB | 7.4 | A | 7.4 | A | 0.0 | 1 | No |
| | WB | 9.6 | A | 9.6 | A | 0.0 | 4 | |
| **PM Peak Hour** | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Intersection | 33.1 | C | 33.2 | C | 0.1 | 3 | No |
| Via Rancho Pkwy @ I-15 SB | Intersection | 37.8 | D | 37.8 | D | 0.0 | 4 | No |
| Via Rancho Pkwy @ Felicita | Intersection | 36.3 | D | 36.4 | D | 0.1 | 4 | No |
| Clarence @ Alexander | EB | 7.2 | A | 7.2 | A | 0.0 | 0 | No |
| | WB | 7.2 | A | 7.2 | A | 0.0 | 2 | |
| | NB | 8.7 | A | 8.7 | A | 0.0 | 0 | |
| | SB | 8.5 | A | 8.5 | A | 0.0 | 1 | |
| Clarence @ Felicita | EB | 9.8 | A | 9.8 | A | 0.0 | 0 | No |
| | WB | 10.0 | A | 10.0 | A | 0.0 | 0 | |
| | NB | 7.4 | A | 7.4 | A | 0.0 | 3 | |
| | SB | 7.5 | A | 7.5 | A | 0.0 | 1 | |
| Felicita @ Miller | SB | 7.5 | A | 7.5 | A | 0.0 | 2 | No |
| | WB | 9.6 | A | 9.7 | A | 0.1 | 2 | |

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Delay and LOS calculated using HCS 4.1d; Project significance based on County thresholds;
EB = eastbound Approach; WB = Westbound Approach; NB = Northbound Approach; SB = Southbound Approach

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# FIGURE 8
## NEAR TERM CUMULATIVE WITHOUT PROJECT TRAFFIC (INCLUDES GROWTH)

## NEAR TERM CONDITIONS (WITH PROJECT)

The proposed Homeland Estates project traffic was added to the cumulative (plus growth) traffic volumes and reported on Figure 9.

## NEAR TERM CONDITIONS LEVEL OF SERVICE

### Roadway Segments

Near Term conditions roadway segment operation is summarized on Table 8. As shown on Table 8, the following segments report deficiencies:

> **Via Rancho Parkway west of Felicita Road** demonstrates LOS E for the cumulative scenario. Based on County cumulative mitigation criteria, the project will pay the TIF for the equivalent of 10 dwelling units which adequately mitigates impacts on deficient roadway segments.
>
> **Via Rancho Parkway between Felicita Road and Interstate 15** demonstrates LOS E conditions for this condition. This segment is within the City of Escondido. The project does not increase the volume to capacity ratio by more than 0.02 and is not considered to have a cumulative impact based on City of Escondido criteria. No mitigation is required of the project.

### Intersections

Intersection operation for the cumulative condition is summarized on Table 9. As shown on Table 9, all intersections in the study area operate acceptably. No mitigation is required.

## YEAR 2030 TRAFFIC

The year 2030 traffic model was generated by SANDAG modeling, which generated daily traffic on study area roads. To compile future intersection volumes, the difference in growth from the cumulative traffic scenario to future traffic was applied to turning movements.

General growth patterns were identified as follows:

> **Via Rancho Parkway** between Felicita Road and I-15 increased approximately 72%; west of Felicita Road growth was approximately 4% over cumulative traffic.
>
> **Felicita Road** demonstrated growth of approximately 2750% over cumulative traffic.
>
> **Clarence Lane**, between Felicita Road and Alexander Drive demonstrated a 200% growth; and east of Alexander Drive 385% growth.

Additionally, assumptions for circulation element improvements are included in the SANDAG model as follows (note: intersections were modified to accommodate the future roadway classifications):

> **Via Rancho Parkway** assumed to be constructed as a four lane major roadway.
>
> **Felicita Road** assumed to be constructed as a four lane collector roadway.

Year 2030 traffic volumes without the proposed project are shown on Figure 10. The project traffic volumes were added to the year 2030 traffic volumes and are presented on Figure 11.

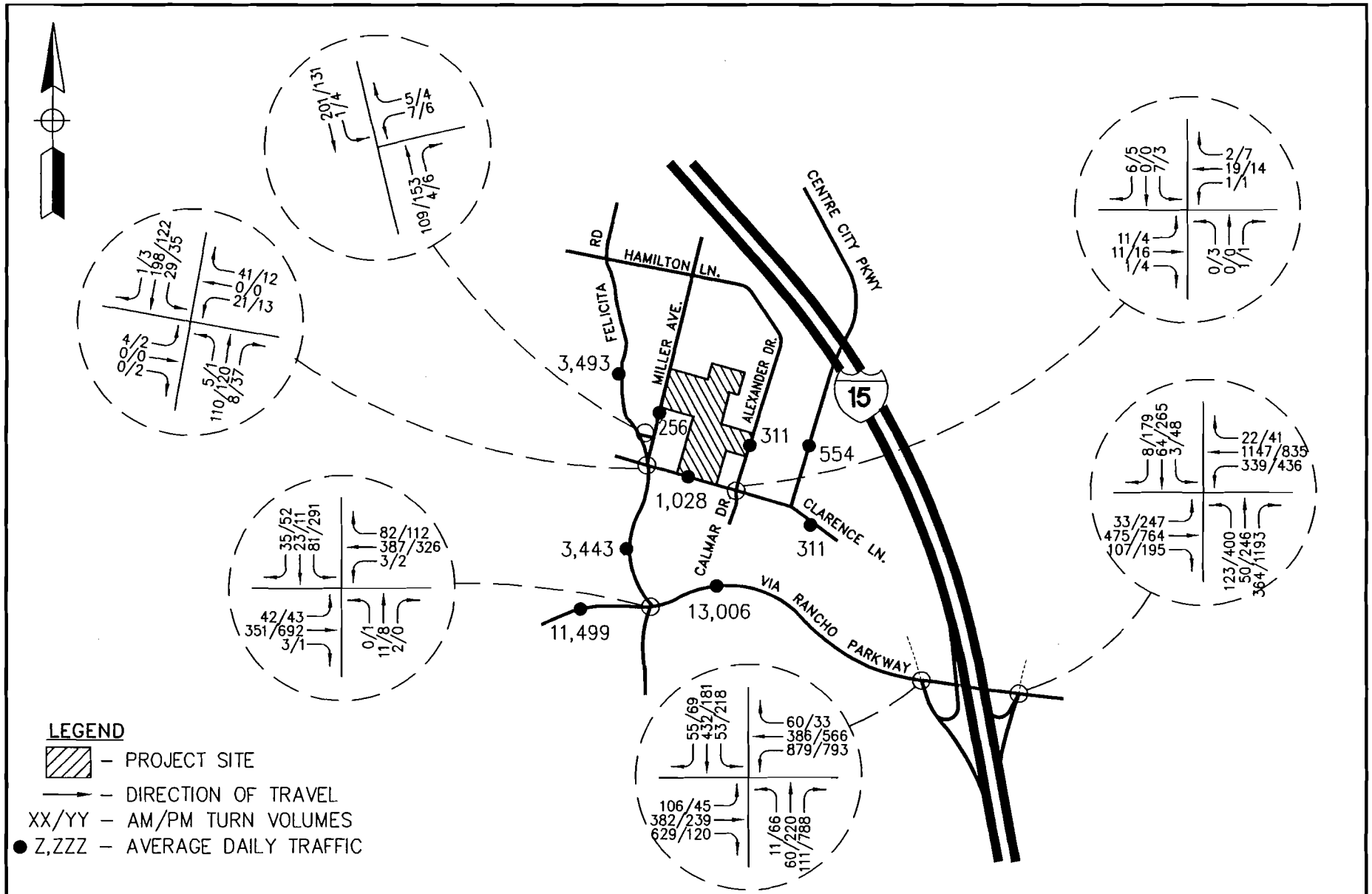


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FIGURE 9
NEAR TERM CUMULATIVE WITH PROJECT TRAFFIC
(INCLUDES GROWTH)

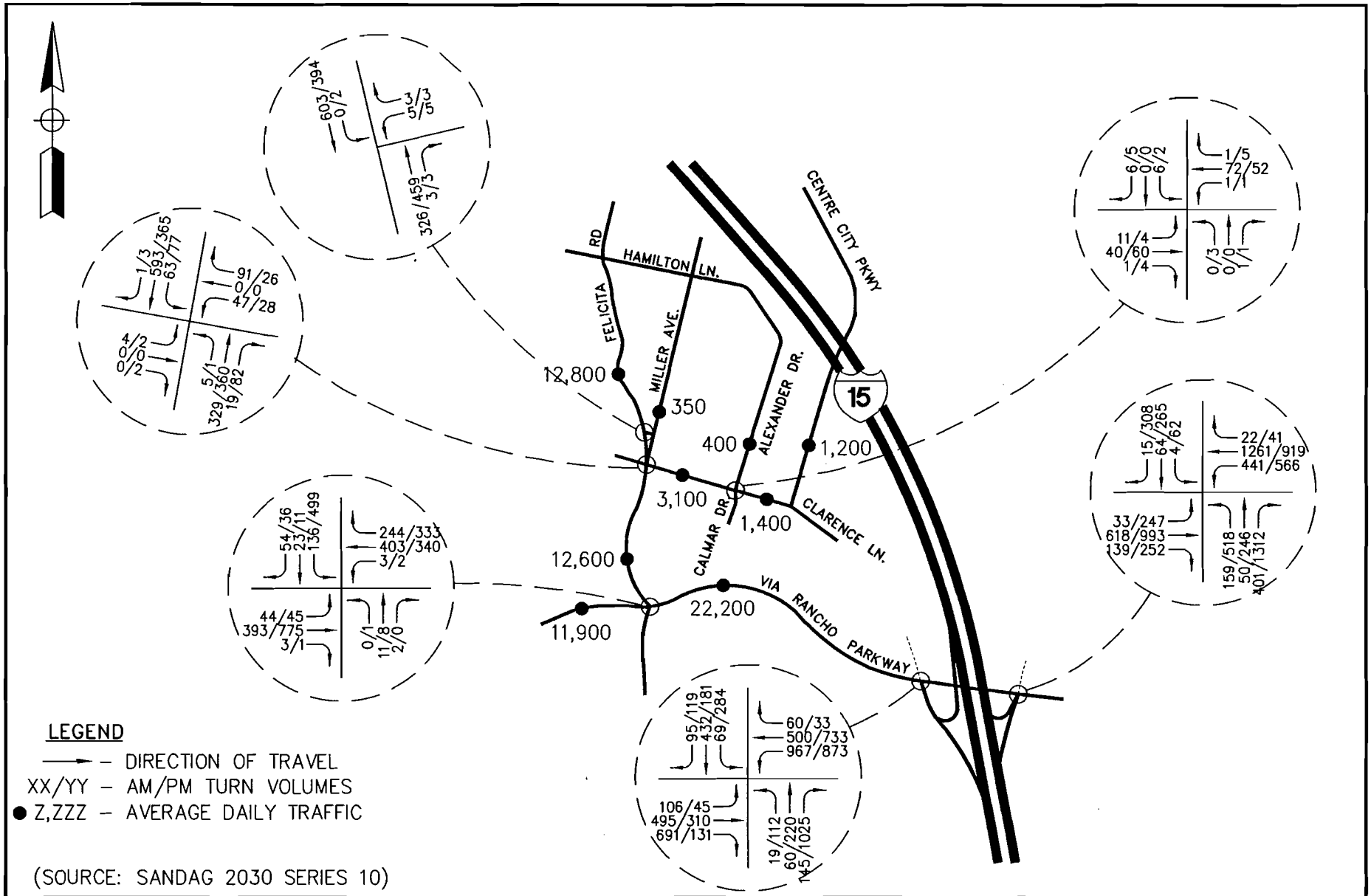
**Table 8 - Near Term Cumulative Roadway Segment Level of Service Summary**

| Segment | Capacity @ LOS E | Existing (A) | | | Near Term Cumulative No Project (B) | | | Near Term Cumulative w/Project (C) | | | Cumulative Contribution (C) - (A) | | Project Contribution (C) - (B) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | ADT | V/C | LOS | ΔV/C | Cmltv. Impact? | Project Traffic | ΔV/C | Project Impact? |
| Via Rancho: w/o Felicita | 16,200 | 10,619 | 0.655 | D | **11,495** | **0.710** | **E** | **11,499** | **0.710** | **E** | **0.055** | **Yes** | **4** | **0.001** | **Yes** |
| Via Rancho: Felicita/I-15 | 16,200 | **11,939** | **0.737** | **E** | **12,968** | **0.800** | **E** | **13,006** | **0.803** | **E** | **0.066** | **Yes** | **38** | **0.003** | **No (1)** |
| Felicita: Hamilton/Miller | 16,200 | 3,173 | 0.196 | B | 3,463 | 0.214 | B | 3,493 | 0.216 | B | 0.020 | No | 30 | 0.002 | No |
| Felicita: Clarence/Via Rancho | 16,200 | 3,115 | 0.192 | B | 3,401 | 0.210 | B | 3,443 | 0.213 | B | 0.021 | No | 42 | 0.003 | No |
| Clarence: Miller/Alexander | 4,500 | 965 | N/A | <C | 1,023 | N/A | <C | 1,028 | N/A | <C | N/A | No | 5 | N/A | No |
| Clarence: e/o Alexander | 4,500 | 271 | N/A | <C | 287 | N/A | <C | 311 | N/A | <C | N/A | No | 24 | N/A | No |
| Miller: Hamilton/Clarence | 1,500 | 219 | N/A | <C | 232 | N/A | <C | 256 | N/A | <C | N/A | No | 24 | N/A | No |
| Alexander: Hamilton/Clarence | 1,500 | 289 | N/A | <C | 306 | N/A | <C | 311 | N/A | <C | N/A | No | 5 | N/A | No |
| Center City: n/o Clarence | 4,500 | 500 | N/A | <C | 530 | N/A | <C | 554 | N/A | <C | N/A | No | 24 | N/A | No |

(1) Segment is located within the City of Escondido and the addition of the project doesn't exceed the City's thresholds levels
LOS=level of service; ADT=Average Daily Traffic; V/C = volume to capacity ratio;
ΔV/C =increase in V/C due to cumulative and project traffic;
N/A = not applicable (LOS is not applicable to non-circulation element roadways);
Project percent = project percent of cumulative traffic (existing traffic excluded)
Cmltv. Impact? = cumulative impact (yes or no) based on County thresholds
Cmltv Signif? = cumulative significant (yes or no) based on County thresholds

| Table 9 - Near Term Cumulative Intersection Level of Service Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Crit. Move | Existing (A) | | Near Term Cumulative No Project (B) | | Near Term Cumulative w/Project (C) | | Cumulative Contribution (C) - (A) | | Project Contribution (C) - (B) | | |
| | | Delay sec/veh | LOS | Delay sec/veh | LOS | Delay sec/veh | LOS | Δ Delay | Cmltv. Impact? | Δ Delay | Project Traffic | Project Impact? |
| **AM Peak Hour** | | | | | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Int. | 27.5 | C | 28.0 | C | 28.0 | C | 0.5 | No | 0.0 | 1 | No |
| Via Rancho Pkwy @ I-15 SB | Int. | 36.9 | D | 45.2 | D | 45.2 | D | 8.3 | No | 0.0 | 3 | No |
| Via Rancho Pkwy @ Felicita | Int. | 38.2 | D | 44.0 | D | 44.1 | D | 5.9 | No | 0.1 | 3 | No |
| Clarence @ Alexander | EB | 7.2 | A | 7.3 | A | 7.3 | A | 0.1 | No | 0.0 | 0 | No |
| | WB | 7.2 | A | 7.2 | A | 7.2 | A | 0.0 | | 0.0 | 1 | |
| | NB | 8.3 | A | 8.4 | A | 8.4 | A | 0.1 | | 0.0 | 0 | |
| | SB | 8.6 | A | 8.7 | A | 8.7 | A | 0.1 | | 0.0 | 1 | |
| Clarence @ Felicita | EB | 11.5 | B | 11.8 | B | 11.9 | B | 0.4 | No | 0.1 | 0 | No |
| | WB | 9.9 | A | 10.1 | B | 10.1 | B | 0.2 | | 0.0 | 0 | |
| | NB | 7.6 | A | 7.6 | A | 7.6 | A | 0.0 | | 0.0 | 1 | |
| | SB | 7.5 | A | 7.5 | A | 7.5 | A | 0.0 | | 0.0 | 2 | |
| Felicita @ Miller | SB | 7.4 | A | 7.4 | A | 7.4 | A | 0.0 | No | 0.0 | 1 | No |
| | WB | 9.6 | A | 9.7 | A | 9.7 | A | 0.1 | | 0.0 | 4 | |
| **PM Peak Hour** | | | | | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Int. | 33.1 | C | 36.2 | D | 36.3 | D | 3.2 | No | 0.1 | 3 | No |
| Via Rancho Pkwy @ I-15 SB | Int. | 37.8 | D | 46.2 | D | 46.2 | D | 8.4 | No | 0.0 | 4 | No |
| Via Rancho Pkwy @ Felicita | Int. | 36.3 | D | 43.2 | D | 43.3 | D | 7.0 | No | 0.1 | 4 | No |
| Clarence @ Alexander | EB | 7.2 | A | 7.2 | A | 7.2 | A | 0.0 | No | 0.0 | 0 | No |
| | WB | 7.2 | A | 7.2 | A | 7.2 | A | 0.0 | | 0.0 | 2 | |
| | NB | 8.7 | A | 8.7 | A | 8.7 | A | 0.0 | | 0.0 | 0 | |
| | SB | 8.5 | A | 8.5 | A | 8.5 | A | 0.0 | | 0.0 | 1 | |
| Clarence @ Felicita | EB | 9.8 | A | 9.9 | A | 10.0 | B | 0.2 | No | 0.1 | 0 | No |
| | WB | 10.0 | A | 10.1 | B | 10.1 | B | 0.1 | | 0.0 | 0 | |
| | NB | 7.4 | A | 7.4 | A | 7.4 | A | 0.0 | | 0.0 | 3 | |
| | SB | 7.5 | A | 7.6 | A | 7.6 | A | 0.0 | | 0.0 | 1 | |
| Felicita @ Miller | SB | 7.5 | A | 7.5 | A | 7.5 | A | 0.0 | No | 0.0 | 2 | No |
| | WB | 9.6 | A | 9.7 | A | 9.8 | A | 0.2 | | 0.1 | 2 | |

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Significance based on County thresholds;
(1) change from existing conditions from all cumulative projects (includes project)
(2) change in delay associated with project (near term with and without project)
(3) cumulative impacts include all projects (including project)
(4) project impacts determine portion of cumulative impact
Delay and LOS calculated using HCS 4.1d




LEGEND

→ – DIRECTION OF TRAVEL

XX/YY – AM/PM TURN VOLUMES

● Z,ZZZ – AVERAGE DAILY TRAFFIC

(SOURCE: SANDAG 2030 SERIES 10)

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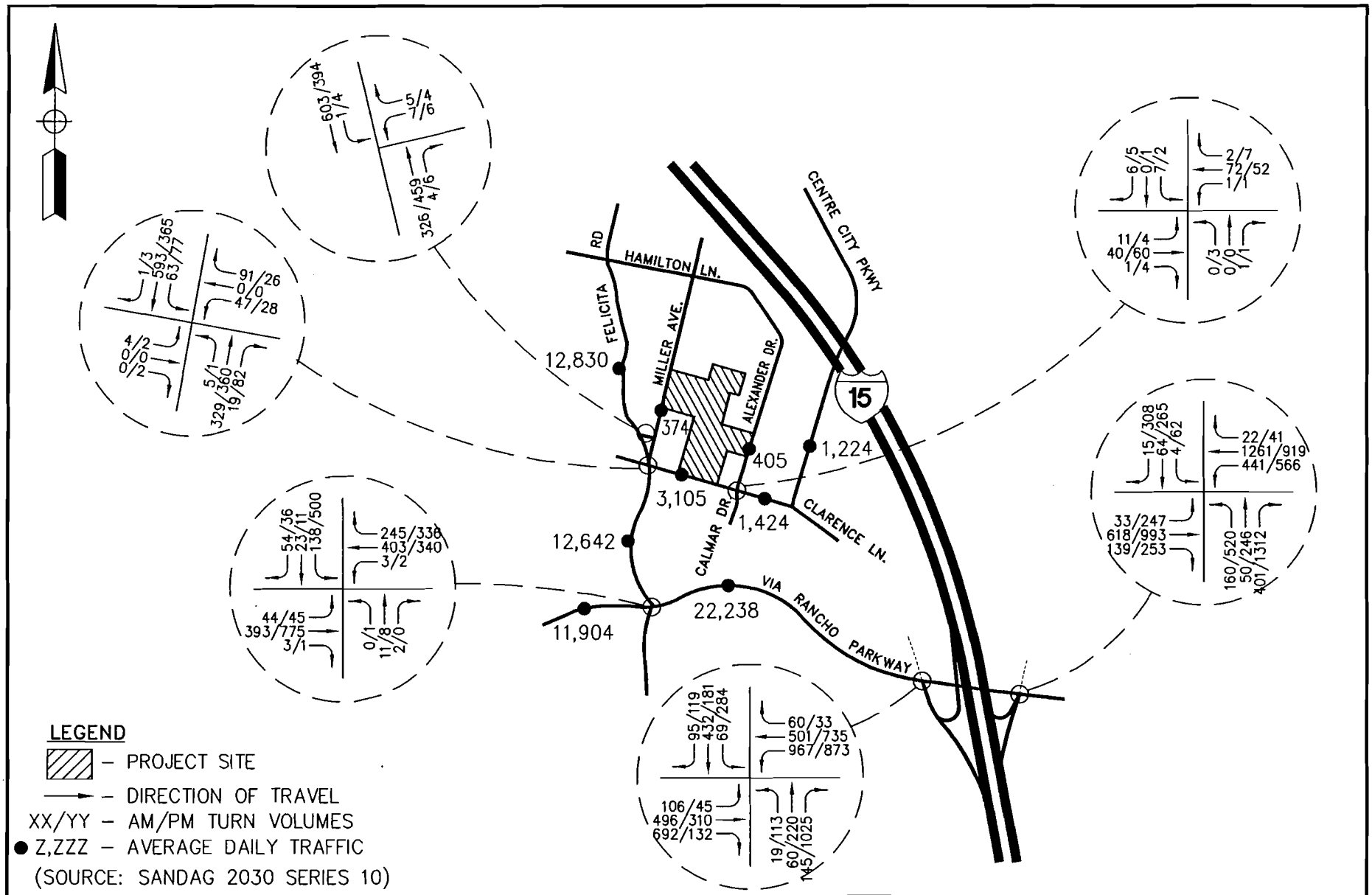
# FIGURE 10

## YEAR 2030 WITHOUT PROJECT




**LEGEND**

- PROJECT SITE
- DIRECTION OF TRAVEL
- XX/YY – AM/PM TURN VOLUMES
- Z,ZZZ – AVERAGE DAILY TRAFFIC (SOURCE: SANDAG 2030 SERIES 10)

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# FIGURE 11

## YEAR 2030 WITH PROJECT

## YEAR 2030 CONDITIONS LEVEL OF SERVICE

### Roadway Segments

Roadway segment operation for the future condition is summarized on Table 10. As shown on Table 10, all future roadway segments operate acceptably in the future. No additional improvements are required.

**Table 10 - Year 2030 Roadway Segment Level of Service Summary**

| Intersection | Capacity @ LOS E | Year 2030 | | Year 2030 Plus Project | | | |
|---|---|---|---|---|---|---|---|
| | | ADT | LOS | ADT | LOS | Project Traffic | Proj. Signif? |
| Via Rancho: w/o Felicita | 37,000 | 11,900 | A | 11904 | A | 4 | No |
| Via Rancho: Felicita/I-15 | 37,000 | 22,200 | B | 22238 | B | 38 | No |
| Felicita: Hamilton/Miller | 34,200 | 12,800 | A | 12830 | A | 30 | No |
| Felicita: Clarence/Via Rancho | 34,200 | 12,600 | A | 12642 | A | 42 | No |
| Clarence: Miller/Alexander | 4,500 | 3,100 | <C | 3105 | <C | 5 | No |
| Clarence: e/o Alexander | 4,500 | 1,400 | <C | 1424 | <C | 24 | No |
| Miller: Hamilton/Clarence | 1,500 | 350 | <C | 374 | <C | 24 | No |
| Alexander: Hamilton/Clarence | 1,500 | 400 | <C | 405 | <C | 5 | No |
| Center City: n/o Clarence | 4,500 | 1,200 | <C | 1224 | <C | 24 | No |

LOS=level of service; ADT=Average daily traffic; Δ ADT%=change in ADT percentage
Proj Signif? Project significance (yes or no) based on County thresholds;
LOS E Capacity per County of San Diego Public Road Standards

### Intersections

Future intersection operation is summarized on Table 11. As shown on Table 11, all future intersections operate acceptably without requiring additional improvement.

| Table 11 – Year 2030 Intersection Level of Service Summary | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Intersection | Critical Movement | Year 2030 | | Year 2030 With Project | | | | |
| | | Delay sec/veh | LOS | Delay sec/veh | LOS | Δ Delay | Proj. Traffic | Proj. Signif? |
| **AM Peak Hour** | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Intersection | 30.8 | C | 30.8 | C | 0.0 | 1 | No |
| Via Rancho Pkwy @ I-15 SB | Intersection | 51.9 | D | 52.0 | D | 0.1 | 3 | No |
| Via Rancho Pkwy @ Felicita | Intersection | 28.7 | C | 28.7 | C | 0.0 | 3 | No |
| Clarence @ Alexander | EB | 7.4 | A | 7.4 | A | 0.0 | 0 | No |
| | WB | 7.3 | A | 7.3 | A | 0.0 | 1 | |
| | NB | 8.5 | A | 8.5 | A | 0.0 | 0 | |
| | SB | 9.0 | A | 9.1 | A | 0.1 | 1 | |
| Clarence @ Felicita | EB | 29.2 | D | 29.3 | D | 0.1 | 0 | No |
| | WB | 20.7 | X | 20.7 | C | 0.0 | 0 | |
| | NB | 8.6 | A | 8.6 | A | 0.0 | 1 | |
| | SB | 8.1 | A | 8.1 | A | 0.0 | 2 | |
| Felicita @ Miller | SB | 7.9 | A | 7.9 | A | 0.0 | 1 | No |
| | WB | 14.6 | B | 14.7 | B | 0.1 | 4 | |
| **PM Peak Hour** | | | | | | | | |
| Via Rancho Pkwy @ I-15 NB | Intersection | 52.9 | D | 53.0 | D | 0.1 | 3 | No |
| Via Rancho Pkwy @ I-15 SB | Intersection | 53.4 | D | 53.5 | D | 0.1 | 4 | No |
| Via Rancho Pkwy @ Felicita | Intersection | 25.5 | C | 25.5 | C | 0.0 | 4 | No |
| Clarence @ Alexander | EB | 7.3 | A | 7.3 | A | 0.0 | 0 | No |
| | WB | 7.3 | A | 7.3 | A | 0.0 | 2 | |
| | NB | 9.1 | A | 9.1 | A | 0.0 | 0 | |
| | SB | 8.8 | A | 8.9 | A | 0.1 | 1 | |
| Clarence @ Felicita | EB | 13.2 | B | 13.2 | B | 0.0 | 0 | No |
| | WB | 14.8 | B | 14.9 | B | 0.1 | 0 | |
| | NB | 8.0 | A | 8.0 | A | 0.0 | 3 | |
| | SB | 8.4 | A | 8.4 | A | 0.0 | 1 | |
| Felicita @ Miller | SB | 8.2 | A | 8.3 | A | 0.1 | 2 | No |
| | WB | 14.3 | B | 14.4 | B | 0.1 | 2 | |

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Delay and LOS calculated using HCS 4.1d; Project significance based on County thresholds;
EB = eastbound Approach; WB = Westbound Approach; NB = Northbound Approach; SB = Southbound Approach

## SECTION V - ACCESS

As shown on the project site plan, the project shows a private street access to Miller Avenue at Street A. This road provides driveway access to Lots 1-8. Access to Lots 9 and 10 is provided from a driveway located off Alexander Drive.

Due to the low volume of exiting traffic during the peak hours, and the low traffic volumes currently on Miller Avenue and Alexander Drive, both driveway access points can be adequately controlled with a stop sign and no additional travel lanes for ingress/egress.

All project driveways and private streets are required to maintain County minimum spacing distances of 200 feet from other driveways and/or private streets. Driveways and private streets which do not meet the minimum 200 foot requirement will be required to process a design exception.

The project is responsible for maintaining adequate corner and stopping sight distance from all driveways and private streets to the satisfaction of the Director of Public Works.

## SECTION VI - MITIGATION MEASURES

### COUNTY OF SAN DIEGO TRAFFIC IMPACT FEE (TIF) PROGRAM

The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNet, state and federal funding to improve freeways to projected level of service objectives in the RTP.

The proposed project generates 120 average daily trips. As discussed in Section IV, these trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. The potential growth represented by the proposed project was included in the growth projections upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above, will mitigate potential cumulative traffic impacts to less than significant.

As of November 2005, the current fee identified in the TIF program for single-family dwelling units in the North County Metro area $6,837 per unit. Thus, per the TIF program, the proposed Homeland Estates project would be required to pay a total of $61,533 (i.e. $6,837/unit X 9 units = $61,533) for traffic impact fees. The actual fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index.

### DIRECT IMPACTS

The project does not have off-site impacts and is not required to mitigate intersections or roadway segments for this condition within the County of San Diego or the City of Escondido.

The project is responsible for providing dedication to ultimate rights of way along property frontage, and designing access configurations in accordance with County Standards to the satisfaction of the Director of Public Works. Currently the interim Public Road Standards require 28 feet on project frontage roads (Miller Avenue, Clarence Lane and Alexander Drive).

All project driveways and private streets are required to maintain County minimum spacing distances of 200 feet from other driveways and/or private streets. Driveways and private streets which do not meet the minimum 200 foot requirement will be required to process a design exception.

The project is responsible for maintaining adequate corner and stopping sight distance from all driveways and private streets to the satisfaction of the Director of Public Works.

## CUMULATIVE IMPACTS

The project contributes to the cumulative need for roadway and intersection improvements within the County of San Diego. To mitigate its cumulative impacts, the developer will pay the County's TIF fee as previously discussed.

The project does not have cumulative impacts on roadways or intersections within the City of Escondido.

## 2030 IMPACTS

No additional impacts were identified for the Year 2030 condition. No mitigation is required of this project at offsite locations for the future scenario.

## SECTION VII - SUMMARY OF FINDINGS

- The proposed Homeland Estates residential development consists of nine (9) dwelling units located west of Interstate 15 on the north side of Clarence Lane between Miller Avenue and Alexander Drive in the County of San Diego. (It should be noted that the original project consisted of ten (10) dwelling units, but was recently reduced to the current project size of nine (9) dwelling units. The analysis within this report addresses the development of ten (10) dwelling units to assess the worst-case scenario.)

- The project will generate approximately 120 daily trips with 10 morning peak hour and 12 evening peak hour trips.

- Existing Plus Project analysis demonstrated that the project has no significant impacts on intersections or roadway segments and is not required to participate in offsite improvements.

- Near Term Cumulative conditions showed all intersections operate at acceptable levels of service with or without the proposed project. The project is not considered to have a cumulative impact, nor is it considered cumulatively significant based on thresholds established in this study for intersections.

- The project is part of cumulative impacts on County roadways and will pay the appropriate TIF fees as identified in Section VI. The project does not have significant impacts on City of Escondido roadways or intersections.

- Year 2030 conditions demonstrated all intersections and roadway segments operate acceptably, with and without the project. The project does not meet cumulative impact thresholds for significant impacts. No offsite mitigation is required of the project for this condition.

- Project access operates at acceptable levels of service with stop controlled exit.

- All project driveways and private streets are required to maintain County minimum spacing distances of 200 feet from other driveways and/or private streets. Driveways and private streets which do not meet the minimum 200 foot requirement will be required to process a design exception.

- The project is responsible for maintaining adequate corner and stopping sight distance from all driveways and private streets to the satisfaction of the Director of Public Works.

# APPENDIX A
# Traffic Counts

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/24/2004 LOCATION: City of Escondido

E-W STREET: Miller Ave DAY: THURSDAY PROJECT# 04-4196-001

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | | 22 | 1 | | 48 | | | | | 0 | | 1 | 72 |
| 7:15 AM | | 29 | 1 | | 52 | | | | | 0 | | 0 | 82 |
| 7:30 AM | | 29 | 0 | | 57 | | | | | 3 | | 1 | 90 |
| 7:45 AM | | 21 | 1 | | 30 | | | | | 2 | | 1 | 55 |
| 8:00 AM | | 19 | 1 | | 44 | | | | | 4 | | 0 | 68 |
| 8:15 AM | | 22 | 1 | | 36 | | | | | 1 | | 0 | 60 |
| 8:30 AM | | 26 | 2 | | 26 | | | | | 1 | | 0 | 55 |
| 8:45 AM | | 26 | 2 | | 31 | | | | | 2 | | 0 | 61 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 0 | NT 194 | NR 9 | SL 0 | ST 324 | SR 0 | EL 0 | ET 0 | ER 0 | WL 13 | WT 0 | WR 3 | TOTAL 543 |

AM Peak Hr Begins at: 700 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 101 | 3 | 0 | 187 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 299 |
| PEAK HR. FACTOR: | | 0.867 | | | 0.820 | | | 0.000 | | | 0.500 | | 0.831 |

CONTROL: ~~Signalized~~ Stop Controlled on WB Approach

A1

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/24/2004 LOCATION: City of Escondido

E-W STREET: Miller Ave DAY: THURSDAY PROJECT# 04-4196-001

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | | 28 | 1 | 0 | 41 | | | | | 2 | | 1 | 73 |
| 4:15 PM | | 37 | 0 | 1 | 29 | | | | | 2 | | 0 | 69 |
| 4:30 PM | | 46 | 0 | 0 | 29 | | | | | 0 | | 1 | 76 |
| 4:45 PM | | 30 | 2 | 1 | 23 | | | | | 1 | | 1 | 58 |
| 5:00 PM | | 24 | 0 | 1 | 31 | | | | | 0 | | 0 | 56 |
| 5:15 PM | | 33 | 3 | 1 | 23 | | | | | 3 | | 1 | 64 |
| 5:30 PM | | 22 | 0 | 0 | 35 | | | | | 1 | | 0 | 58 |
| 5:45 PM | | 36 | 1 | 3 | 33 | | | | | 1 | | 0 | 74 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 0 | NT 256 | NR 7 | SL 7 | ST 244 | SR 0 | EL 0 | ET 0 | ER 0 | WL 10 | WT 0 | WR 4 | TOTAL 528 |

PM Peak Hr Begins at: 400 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 141 | 3 | 2 | 122 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 276 |
| PEAK HR. FACTOR: | | 0.783 | | | 0.756 | | | 0.000 | | | 0.667 | | 0.908 |

CONTROL:

~~Signalized~~ Stop Controlled on WB approach

A2

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Clarence Ln DAY: WEDNESDAY PROJECT# 04-4196-002

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | 0 | 22 | 0 | 1 | 76 | 0 | 0 | | 0 | 10 | | 8 | 117 |
| 7:15 AM | 0 | 25 | 1 | 5 | 48 | 0 | 0 | | 0 | 6 | | 11 | 96 |
| 7:30 AM | 2 | 32 | 2 | 13 | 30 | 0 | 1 | | 0 | 1 | | 7 | 88 |
| 7:45 AM | 3 | 22 | 5 | 8 | 28 | 1 | 3 | | 0 | 3 | | 13 | 86 |
| 8:00 AM | 5 | 16 | 2 | 6 | 24 | 3 | 0 | | 0 | 2 | | 8 | 66 |
| 8:15 AM | 1 | 13 | 4 | 8 | 31 | 2 | 1 | | 2 | 2 | | 6 | 70 |
| 8:30 AM | 3 | 19 | 1 | 4 | 29 | 1 | 0 | | 4 | 2 | | 3 | 66 |
| 8:45 AM | 3 | 16 | 3 | 5 | 25 | 0 | 2 | | 1 | 4 | | 4 | 63 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 17 | NT 165 | NR 18 | SL 50 | ST 291 | SR 7 | EL 7 | ET 0 | ER 7 | WL 30 | WT 0 | WR 60 | TOTAL 652 |

AM Peak Hr Begins at: 700 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 5 | 101 | 8 | 27 | 182 | 1 | 4 | 0 | 0 | 20 | 0 | 39 | 387 |
| PEAK HR. FACTOR: | | 0.792 | | | 0.682 | | | 0.333 | | | 0.819 | | 0.827 |

CONTROL: 2WayStop(EW)

A3

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Clarence Ln DAY: WEDNESDAY PROJECT# 04-4196-002

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 0 | 30 | 3 | 6 | 21 | 2 | 0 | | 0 | 3 | | 4 | 69 |
| 4:15 PM | 1 | 24 | 5 | 3 | 18 | 0 | 1 | | 0 | 0 | | 2 | 54 |
| 4:30 PM | 0 | 26 | 3 | 7 | 26 | 0 | 0 | | 0 | 3 | | 1 | 66 |
| 4:45 PM | 2 | 34 | 4 | 7 | 23 | 1 | 0 | | 1 | 1 | | 0 | 73 |
| 5:00 PM | 0 | 30 | 8 | 5 | 30 | 1 | 0 | | 2 | 0 | | 2 | 78 |
| 5:15 PM | 0 | 29 | 7 | 11 | 27 | 2 | 2 | | 0 | 2 | | 5 | 85 |
| 5:30 PM | 1 | 27 | 12 | 9 | 24 | 0 | 0 | | 0 | 4 | | 1 | 78 |
| 5:45 PM | 0 | 21 | 8 | 8 | 31 | 0 | 0 | | 0 | 6 | | 3 | 77 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | 4 | 221 | 50 | 56 | 200 | 6 | 3 | 0 | 3 | 19 | 0 | 18 | 580 |

PM Peak Hr Begins at: 500 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 1 | 107 | 35 | 33 | 112 | 3 | 2 | 0 | 2 | 12 | 0 | 11 | 318 |
| PEAK HR. FACTOR: | | 0.894 | | | 0.925 | | | 0.500 | | | 0.639 | | 0.935 |

CONTROL:

2WayStop(EW)

A4

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy DAY: WEDNESDAY PROJECT# 04-4196-003

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | .5 | .5 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | 0 | 1 | 0 | 14 | 1 | 7 | 5 | 79 | 0 | 0 | 68 | 14 | 189 |
| 7:15 AM | 1 | 1 | 3 | 19 | 5 | 12 | 10 | 78 | 0 | 0 | 91 | 18 | 238 |
| 7:30 AM | 0 | 2 | 0 | 30 | 4 | 12 | 6 | 63 | 0 | 0 | 102 | 15 | 234 |
| 7:45 AM | 0 | 2 | 2 | 12 | 3 | 7 | 8 | 85 | 2 | 0 | 81 | 17 | 219 |
| 8:00 AM | 0 | 4 | 0 | 23 | 7 | 8 | 10 | 72 | 0 | 2 | 90 | 20 | 236 |
| 8:15 AM | 0 | 3 | 1 | 16 | 4 | 18 | 10 | 80 | 1 | 0 | 86 | 18 | 237 |
| 8:30 AM | 0 | 1 | 0 | 15 | 4 | 7 | 10 | 84 | 0 | 0 | 91 | 20 | 232 |
| 8:45 AM | 0 | 2 | 1 | 16 | 7 | 16 | 9 | 86 | 2 | 1 | 91 | 16 | 247 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | 1 | 16 | 7 | 145 | 35 | 87 | 68 | 627 | 5 | 3 | 700 | 138 | 1832 |

AM Peak Hr Begins at: 800 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 10 | 2 | 70 | 22 | 49 | 39 | 322 | 3 | 3 | 358 | 74 | 952 |
| PEAK HR. FACTOR: | | 0.750 | | | 0.904 | | | 0.938 | | | 0.971 | | 0.964 |

CONTROL: Signalized

A5

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Felicita Rd DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy DAY: PROJECT# 04-4196-003

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | .5 | .5 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 0 | 3 | | 48 | 2 | 11 | 5 | 106 | 0 | 1 | 59 | 11 | 246 |
| 4:15 PM | 0 | 4 | | 43 | 1 | 4 | 8 | 106 | 0 | 0 | 69 | 10 | 245 |
| 4:30 PM | 0 | 3 | | 72 | 3 | 6 | 12 | 174 | 1 | 1 | 47 | 18 | 337 |
| 4:45 PM | 0 | 1 | | 108 | 1 | 14 | 10 | 199 | 0 | 0 | 73 | 19 | 425 |
| 5:00 PM | 1 | 3 | | 63 | 3 | 7 | 12 | 141 | 0 | 1 | 82 | 29 | 342 |
| 5:15 PM | 0 | 1 | | 27 | 3 | 5 | 6 | 129 | 0 | 0 | 95 | 32 | 298 |
| 5:30 PM | 2 | 1 | | 25 | 1 | 14 | 13 | 90 | 2 | 0 | 51 | 11 | 210 |
| 5:45 PM | 1 | 5 | | 18 | 2 | 7 | 10 | 103 | 2 | 0 | 44 | 12 | 204 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | 4 | 21 | 0 | 404 | 16 | 68 | 76 | 1048 | 5 | 3 | 520 | 142 | 2307 |

PM Peak Hr Begins at: 430 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 1 | 8 | 0 | 270 | 10 | 32 | 40 | 643 | 1 | 2 | 297 | 98 | 1402 |
| PEAK HR. FACTOR: | | 0.563 | | | 0.634 | | | 0.818 | | | 0.781 | | 0.825 |

CONTROL:

Signalized

A6

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Alexander Dr DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Clarence Ln DAY: WEDNESDAY PROJECT# 04-4196-004

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | 1 | | 0 | 3 | 0 | 4 | 1 | 3 | 0 | 0 | 1 | 0 | 13 |
| 7:15 AM | 0 | | 0 | 1 | 0 | 2 | 3 | 5 | 0 | 0 | 3 | 0 | 14 |
| 7:30 AM | 0 | | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 1 | 3 | 1 | 10 |
| 7:45 AM | 0 | | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 5 | 0 | 10 |
| 8:00 AM | 0 | | 1 | 4 | 0 | 3 | 1 | 4 | 0 | 0 | 7 | 0 | 20 |
| 8:15 AM | 0 | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 |
| 8:30 AM | 1 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 16 |
| 8:45 AM | 0 | | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 0 | 3 | 0 | 10 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 2 | NT 0 | NR 3 | SL 12 | ST 1 | SR 14 | EL 13 | ET 20 | ER 3 | WL 2 | WT 25 | WR 2 | TOTAL 97 |

AM Peak Hr Begins at: 715 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 0 | 1 | 6 | 0 | 6 | 10 | 10 | 1 | 1 | 18 | 1 | 54 |
| PEAK HR. FACTOR: | | 0.250 | | | 0.429 | | | 0.656 | | | 0.714 | | 0.675 |

CONTROL: 2WayStop(NS)

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Alexander Dr DATE: 6/9/2004 LOCATION: City of Escondido

E-W STREET: Clarence Ln DAY: WEDNESDAY PROJECT# 04-4196-004

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 0 | | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 1 | 9 |
| 4:15 PM | 0 | | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 5 |
| 4:30 PM | 1 | | 0 | 2 | 0 | 4 | 3 | 0 | 0 | 0 | 2 | 0 | 12 |
| 4:45 PM | 1 | | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 3 | 2 | 11 |
| 5:00 PM | 0 | | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 5 | 1 | 11 |
| 5:15 PM | 2 | | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 2 | 3 | 13 |
| 5:30 PM | 0 | | 0 | 1 | 0 | 3 | 2 | 6 | 2 | 0 | 2 | 0 | 16 |
| 5:45 PM | 1 | | 1 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 4 | 1 | 13 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 5 | NT 0 | NR 2 | SL 5 | ST 1 | SR 10 | EL 9 | ET 23 | ER 4 | WL 1 | WT 22 | WR 8 | TOTAL 90 |

PM Peak Hr Begins at: 500 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 15 | 4 | 1 | 13 | 5 | 53 |
| PEAK HR. FACTOR: | | 0.500 | | | 0.438 | | | 0.575 | | | 0.679 | | 0.828 |

CONTROL:

2WayStop(NS)

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-001

Location: Felicita Rd Btwn Hamilton Ln & Miller Ave

| AM Period | NB | | SB | | EB | | WB | | PM Period | NB | | SB | | EB | | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 2 | | 2 | | | | | | 12:00 | 17 | | 26 | | | | | |
| 00:15 | 0 | | 3 | | | | | | 12:15 | 19 | | 20 | | | | | |
| 00:30 | 1 | | 0 | | | | | | 12:30 | 18 | | 24 | | | | | |
| 00:45 | 1 | 4 | 1 | 6 | | | | 10 | 12:45 | 12 | 66 | 18 | 88 | | | | 154 |
| 01:00 | 1 | | 1 | | | | | | 13:00 | 10 | | 19 | | | | | |
| 01:15 | 0 | | 2 | | | | | | 13:15 | 11 | | 25 | | | | | |
| 01:30 | 2 | | 0 | | | | | | 13:30 | 15 | | 32 | | | | | |
| 01:45 | 0 | 3 | 1 | 4 | | | | 7 | 13:45 | 16 | 52 | 17 | 93 | | | | 145 |
| 02:00 | 1 | | 1 | | | | | | 14:00 | 17 | | 24 | | | | | |
| 02:15 | 0 | | 0 | | | | | | 14:15 | 18 | | 25 | | | | | |
| 02:30 | 1 | | 0 | | | | | | 14:30 | 19 | | 28 | | | | | |
| 02:45 | 1 | 3 | 2 | 3 | | | | 6 | 14:45 | 21 | 75 | 26 | 103 | | | | 178 |
| 03:00 | 1 | | 0 | | | | | | 15:00 | 18 | | 29 | | | | | |
| 03:15 | 0 | | 0 | | | | | | 15:15 | 18 | | 27 | | | | | |
| 03:30 | 0 | | 0 | | | | | | 15:30 | 22 | | 30 | | | | | |
| 03:45 | 2 | 3 | 2 | 2 | | | | 5 | 15:45 | 28 | 86 | 28 | 114 | | | | 200 |
| 04:00 | 4 | | 5 | | | | | | 16:00 | 30 | | 29 | | | | | |
| 04:15 | 6 | | 4 | | | | | | 16:15 | 35 | | 23 | | | | | |
| 04:30 | 7 | | 2 | | | | | | 16:30 | 42 | | 32 | | | | | |
| 04:45 | 7 | 24 | 2 | 13 | | | | 37 | 16:45 | 41 | 148 | 31 | 115 | | | | 263 |
| 05:00 | 8 | | 4 | | | | | | 17:00 | 29 | | 31 | | | | | |
| 05:15 | 10 | | 6 | | | | | | 17:15 | 20 | | 40 | | | | | |
| 05:30 | 9 | | 9 | | | | | | 17:30 | 36 | | 32 | | | | | |
| 05:45 | 5 | 32 | 17 | 36 | | | | 68 | 17:45 | 38 | 123 | 34 | 137 | | | | 260 |
| 06:00 | 12 | | 31 | | | | | | 18:00 | 21 | | 33 | | | | | |
| 06:15 | 15 | | 32 | | | | | | 18:15 | 26 | | 25 | | | | | |
| 06:30 | 20 | | 35 | | | | | | 18:30 | 30 | | 20 | | | | | |
| 06:45 | 22 | 69 | 30 | 128 | | | | 197 | 18:45 | 26 | 103 | 26 | 104 | | | | 207 |
| 07:00 | 23 | | 42 | | | | | | 19:00 | 22 | | 22 | | | | | |
| 07:15 | 30 | | 39 | | | | | | 19:15 | 18 | | 20 | | | | | |
| 07:30 | 29 | | 42 | | | | | | 19:30 | 15 | | 10 | | | | | |
| 07:45 | 28 | 110 | 54 | 177 | | | | 287 | 19:45 | 12 | 67 | 16 | 68 | | | | 135 |
| 08:00 | 15 | | 41 | | | | | | 20:00 | 10 | | 19 | | | | | |
| 08:15 | 18 | | 29 | | | | | | 20:15 | 15 | | 24 | | | | | |
| 08:30 | 20 | | 32 | | | | | | 20:30 | 16 | | 16 | | | | | |
| 08:45 | 29 | 82 | 36 | 138 | | | | 220 | 20:45 | 10 | 51 | 14 | 73 | | | | 124 |
| 09:00 | 28 | | 35 | | | | | | 21:00 | 8 | | 14 | | | | | |
| 09:15 | 30 | | 29 | | | | | | 21:15 | 7 | | 7 | | | | | |
| 09:30 | 26 | | 37 | | | | | | 21:30 | 9 | | 10 | | | | | |
| 09:45 | 20 | 104 | 15 | 116 | | | | 220 | 21:45 | 9 | 33 | 10 | 41 | | | | 74 |
| 10:00 | 13 | | 15 | | | | | | 22:00 | 2 | | 6 | | | | | |
| 10:15 | 22 | | 15 | | | | | | 22:15 | 3 | | 7 | | | | | |
| 10:30 | 26 | | 23 | | | | | | 22:30 | 1 | | 4 | | | | | |
| 10:45 | 12 | 73 | 17 | 70 | | | | 143 | 22:45 | 2 | 8 | 4 | 21 | | | | 29 |
| 11:00 | 34 | | 13 | | | | | | 23:00 | 2 | | 4 | | | | | |
| 11:15 | 25 | | 15 | | | | | | 23:15 | 2 | | 3 | | | | | |
| 11:30 | 17 | | 20 | | | | | | 23:30 | 1 | | 2 | | | | | |
| 11:45 | 18 | 94 | 43 | 91 | | | | 185 | 23:45 | 1 | 6 | 4 | 13 | | | | 19 |
| **Total Vol.** | | 601 | | 784 | | | | **1385** | | | 818 | | 970 | | | | **1788** |

| Daily Totals | NB | SB | EB | WB | Combined |
|---|---|---|---|---|---|
| | 1419 | 1754 | | | **3173** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 43.4% | 56.6% | **43.6%** | 45.7% | 54.3% | **56.4%** |
| **Peak Hour** | 08:45 | 07:00 | **07:00** | 16:00 | 17:15 | **16:30** |
| **Volume** | 113 | 177 | **287** | 148 | 139 | **266** |
| **P.H.F.** | 0.94 | 0.82 | **0.88** | 0.89 | 0.87 | **0.90** |

A9

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-002

Location: Felicita Rd Btwn Clarence Ln & Via Rancho Pkwy

| AM Period | NB | | SB | | EB | WB | | PM Period | NB | | SB | | EB | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 2 | | 2 | | | | | 12:00 | 30 | | 8 | | | | |
| 00:15 | 2 | | 1 | | | | | 12:15 | 30 | | 10 | | | | |
| 00:30 | 2 | | 1 | | | | | 12:30 | 24 | | 9 | | | | |
| 00:45 | 2 | 8 | 2 | 6 | | | 14 | 12:45 | 23 | 107 | 7 | 34 | | | 141 |
| 01:00 | 0 | | 1 | | | | | 13:00 | 28 | | 8 | | | | |
| 01:15 | 2 | | 0 | | | | | 13:15 | 26 | | 10 | | | | |
| 01:30 | 0 | | 2 | | | | | 13:30 | 35 | | 18 | | | | |
| 01:45 | 1 | 3 | 1 | 4 | | | 7 | 13:45 | 22 | 111 | 20 | 56 | | | 167 |
| 02:00 | 0 | | 1 | | | | | 14:00 | 26 | | 19 | | | | |
| 02:15 | 0 | | 0 | | | | | 14:15 | 24 | | 18 | | | | |
| 02:30 | 0 | | 0 | | | | | 14:30 | 31 | | 12 | | | | |
| 02:45 | 0 | 0 | 1 | 2 | | | 2 | 14:45 | 29 | 110 | 17 | 66 | | | 176 |
| 03:00 | 0 | | 1 | | | | | 15:00 | 32 | | 12 | | | | |
| 03:15 | 0 | | 0 | | | | | 15:15 | 32 | | 11 | | | | |
| 03:30 | 0 | | 0 | | | | | 15:30 | 29 | | 19 | | | | |
| 03:45 | 1 | 1 | 2 | 3 | | | 4 | 15:45 | 30 | 123 | 20 | 62 | | | 185 |
| 04:00 | 5 | | 2 | | | | | 16:00 | 34 | | 22 | | | | |
| 04:15 | 3 | | 1 | | | | | 16:15 | 28 | | 20 | | | | |
| 04:30 | 1 | | 1 | | | | | 16:30 | 36 | | 27 | | | | |
| 04:45 | 2 | 11 | 2 | 6 | | | 17 | 16:45 | 42 | 140 | 24 | 93 | | | 233 |
| 05:00 | 2 | | 3 | | | | | 17:00 | 35 | | 37 | | | | |
| 05:15 | 3 | | 1 | | | | | 17:15 | 46 | | 29 | | | | |
| 05:30 | 7 | | 2 | | | | | 17:30 | 38 | | 26 | | | | |
| 05:45 | 12 | 24 | 8 | 14 | | | 38 | 17:45 | 34 | 153 | 35 | 127 | | | 280 |
| 06:00 | 24 | | 10 | | | | | 18:00 | 32 | | 27 | | | | |
| 06:15 | 23 | | 20 | | | | | 18:15 | 26 | | 18 | | | | |
| 06:30 | 24 | | 30 | | | | | 18:30 | 24 | | 15 | | | | |
| 06:45 | 18 | 89 | 60 | 120 | | | 209 | 18:45 | 28 | 110 | 16 | 76 | | | 186 |
| 07:00 | 32 | | 80 | | | | | 19:00 | 27 | | 17 | | | | |
| 07:15 | 23 | | 54 | | | | | 19:15 | 22 | | 18 | | | | |
| 07:30 | 25 | | 32 | | | | | 19:30 | 14 | | 12 | | | | |
| 07:45 | 25 | 105 | 31 | 197 | | | 302 | 19:45 | 23 | 86 | 18 | 65 | | | 151 |
| 08:00 | 30 | | 27 | | | | | 20:00 | 22 | | 10 | | | | |
| 08:15 | 21 | | 33 | | | | | 20:15 | 30 | | 8 | | | | |
| 08:30 | 20 | | 32 | | | | | 20:30 | 16 | | 7 | | | | |
| 08:45 | 23 | 94 | 29 | 121 | | | 215 | 20:45 | 19 | 87 | 9 | 34 | | | 121 |
| 09:00 | 22 | | 22 | | | | | 21:00 | 22 | | 11 | | | | |
| 09:15 | 17 | | 21 | | | | | 21:15 | 9 | | 10 | | | | |
| 09:30 | 21 | | 19 | | | | | 21:30 | 10 | | 8 | | | | |
| 09:45 | 13 | 73 | 20 | 82 | | | 155 | 21:45 | 12 | 53 | 7 | 36 | | | 89 |
| 10:00 | 20 | | 15 | | | | | 22:00 | 11 | | 7 | | | | |
| 10:15 | 20 | | 17 | | | | | 22:15 | 6 | | 9 | | | | |
| 10:30 | 23 | | 20 | | | | | 22:30 | 8 | | 10 | | | | |
| 10:45 | 20 | 83 | 22 | 74 | | | 157 | 22:45 | 5 | 30 | 8 | 34 | | | 64 |
| 11:00 | 16 | | 20 | | | | | 23:00 | 3 | | 7 | | | | |
| 11:15 | 16 | | 21 | | | | | 23:15 | 6 | | 7 | | | | |
| 11:30 | 24 | | 19 | | | | | 23:30 | 4 | | 2 | | | | |
| 11:45 | 34 | 90 | 17 | 77 | | | 167 | 23:45 | 5 | 18 | 1 | 17 | | | 35 |
| **Total Vol.** | | 581 | | 706 | | | **1287** | | | 1128 | | 700 | | | **1828** |

**Daily Totals**

| NB | SB | EB | WB | Combined |
|---|---|---|---|---|
| 1709 | 1406 | | | **3115** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 45.1% | 54.9% | **41.3%** | 61.7% | 38.3% | **58.7%** |
| **Peak Hour** | 11:30 | 06:45 | **06:45** | 16:45 | 17:00 | **17:00** |
| **Volume** | 118 | 226 | **324** | 161 | 127 | **280** |
| **P.H.F.** | #REF! | 0.71 | **0.72** | 0.92 | 0.86 | **0.93** |

A 10

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-003

Location: Miller Ave Btwn Hamilton Ln & Felicita Rd

| AM Period | NB | | SB | | EB | WB | | PM Period | NB | | SB | | EB | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | 12:00 | 8 | | 10 | | | | |
| 00:15 | 1 | | 0 | | | | | 12:15 | 4 | | 3 | | | | |
| 00:30 | 1 | | 0 | | | | | 12:30 | 1 | | 0 | | | | |
| 00:45 | 0 | 2 | 0 | 0 | | | 2 | 12:45 | 3 | 16 | 2 | 15 | | | 31 |
| 01:00 | 0 | | 0 | | | | | 13:00 | 2 | | 2 | | | | |
| 01:15 | 1 | | 1 | | | | | 13:15 | 1 | | 2 | | | | |
| 01:30 | 0 | | 0 | | | | | 13:30 | 2 | | 4 | | | | |
| 01:45 | 0 | 1 | 0 | 1 | | | 2 | 13:45 | 1 | 6 | 0 | 8 | | | 14 |
| 02:00 | 0 | | 0 | | | | | 14:00 | 1 | | 2 | | | | |
| 02:15 | 0 | | 2 | | | | | 14:15 | 6 | | 4 | | | | |
| 02:30 | 0 | | 0 | | | | | 14:30 | 1 | | 2 | | | | |
| 02:45 | 0 | 0 | 0 | 2 | | | 2 | 14:45 | 2 | 10 | 2 | 10 | | | 20 |
| 03:00 | 0 | | 0 | | | | | 15:00 | 3 | | 2 | | | | |
| 03:15 | 0 | | 0 | | | | | 15:15 | 2 | | 2 | | | | |
| 03:30 | 0 | | 1 | | | | | 15:30 | 4 | | 1 | | | | |
| 03:45 | 0 | 0 | 0 | 1 | | | 1 | 15:45 | 1 | 10 | 2 | 7 | | | 17 |
| 04:00 | 0 | | 0 | | | | | 16:00 | 1 | | 3 | | | | |
| 04:15 | 2 | | 0 | | | | | 16:15 | 1 | | 3 | | | | |
| 04:30 | 0 | | 0 | | | | | 16:30 | 2 | | 2 | | | | |
| 04:45 | 0 | 2 | 0 | 0 | | | 2 | 16:45 | 1 | 5 | 2 | 10 | | | 15 |
| 05:00 | 0 | | 0 | | | | | 17:00 | 2 | | 1 | | | | |
| 05:15 | 0 | | 0 | | | | | 17:15 | 3 | | 4 | | | | |
| 05:30 | 0 | | 0 | | | | | 17:30 | 2 | | 2 | | | | |
| 05:45 | 0 | 0 | 0 | 0 | | | | 17:45 | 4 | 11 | 0 | 7 | | | 18 |
| 06:00 | 0 | | 1 | | | | | 18:00 | 1 | | 1 | | | | |
| 06:15 | 1 | | 1 | | | | | 18:15 | 2 | | 1 | | | | |
| 06:30 | 0 | | 0 | | | | | 18:30 | 2 | | 0 | | | | |
| 06:45 | 0 | 1 | 1 | 3 | | | 4 | 18:45 | 1 | 6 | 1 | 3 | | | 9 |
| 07:00 | 1 | | 0 | | | | | 19:00 | 0 | | 0 | | | | |
| 07:15 | 1 | | 4 | | | | | 19:15 | 0 | | 0 | | | | |
| 07:30 | 0 | | 2 | | | | | 19:30 | 1 | | 0 | | | | |
| 07:45 | 2 | 4 | 3 | 9 | | | 13 | 19:45 | 1 | 2 | 0 | 0 | | | 2 |
| 08:00 | 0 | | 3 | | | | | 20:00 | 1 | | 1 | | | | |
| 08:15 | 0 | | 2 | | | | | 20:15 | 2 | | 2 | | | | |
| 08:30 | 2 | | 2 | | | | | 20:30 | 0 | | 0 | | | | |
| 08:45 | 2 | 4 | 1 | 8 | | | 12 | 20:45 | 0 | 3 | 0 | 3 | | | 6 |
| 09:00 | 1 | | 2 | | | | | 21:00 | 0 | | 1 | | | | |
| 09:15 | 0 | | 0 | | | | | 21:15 | 0 | | 0 | | | | |
| 09:30 | 0 | | 3 | | | | | 21:30 | 2 | | 2 | | | | |
| 09:45 | 1 | 2 | 1 | 6 | | | 8 | 21:45 | 2 | 4 | 0 | 3 | | | 7 |
| 10:00 | 4 | | 1 | | | | | 22:00 | 1 | | 3 | | | | |
| 10:15 | 1 | | 2 | | | | | 22:15 | 1 | | 2 | | | | |
| 10:30 | 1 | | 1 | | | | | 22:30 | 1 | | 2 | | | | |
| 10:45 | 0 | 6 | 2 | 6 | | | 12 | 22:45 | 1 | 4 | 0 | 7 | | | 11 |
| 11:00 | 1 | | 0 | | | | | 23:00 | 0 | | 0 | | | | |
| 11:15 | 4 | | 0 | | | | | 23:15 | 0 | | 1 | | | | |
| 11:30 | 1 | | 2 | | | | | 23:30 | 0 | | 0 | | | | |
| 11:45 | 1 | 7 | 1 | 3 | | | 10 | 23:45 | 0 | 0 | 0 | 1 | | | 1 |
| **Total Vol.** | | 29 | | 39 | | | **68** | | | 77 | | 74 | | | **151** |

**Daily Totals**

| NB | SB | EB | WB | Combined |
|---|---|---|---|---|
| 106 | 113 | | | **219** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 42.6% | 57.4% | **31.1%** | 51.0% | 49.0% | **68.9%** |
| **Peak Hour** | 11:15 | 11:30 | **11:30** | 12:00 | 12:00 | **12:00** |
| **Volume** | 14 | 16 | **30** | 16 | 15 | **31** |
| **P.H.F.** | #REF! | #REF! | **#REF!** | 0.44 | 0.38 | **0.43** |

A11

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-004

Location: Alexander Rd Btwn Woodland Hills Dr & Clarence Ln

| AM Period | NB | | SB | | EB | WB | | PM Period | NB | | SB | | EB | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | 12:00 | 2 | | 2 | | | | |
| 00:15 | 0 | | 0 | | | | | 12:15 | 2 | | 3 | | | | |
| 00:30 | 0 | | 0 | | | | | 12:30 | 3 | | 2 | | | | |
| 00:45 | 0 | 0 | 0 | 0 | | | | 12:45 | 5 | 12 | 1 | 8 | | | 20 |
| 01:00 | 0 | | 0 | | | | | 13:00 | 4 | | 2 | | | | |
| 01:15 | 0 | | 0 | | | | | 13:15 | 1 | | 0 | | | | |
| 01:30 | 2 | | 0 | | | | | 13:30 | 0 | | 2 | | | | |
| 01:45 | 0 | 2 | 0 | 0 | | | 2 | 13:45 | 3 | 8 | 4 | 8 | | | 16 |
| 02:00 | 0 | | 0 | | | | | 14:00 | 3 | | 3 | | | | |
| 02:15 | 0 | | 0 | | | | | 14:15 | 4 | | 1 | | | | |
| 02:30 | 0 | | 0 | | | | | 14:30 | 3 | | 2 | | | | |
| 02:45 | 0 | 0 | 0 | 0 | | | | 14:45 | 4 | 14 | 3 | 9 | | | 23 |
| 03:00 | 0 | | 0 | | | | | 15:00 | 0 | | 2 | | | | |
| 03:15 | 0 | | 1 | | | | | 15:15 | 5 | | 1 | | | | |
| 03:30 | 0 | | 0 | | | | | 15:30 | 3 | | 0 | | | | |
| 03:45 | 2 | 2 | 0 | 1 | | | 3 | 15:45 | 1 | 9 | 3 | 6 | | | 15 |
| 04:00 | 1 | | 0 | | | | | 16:00 | 1 | | 2 | | | | |
| 04:15 | 0 | | 1 | | | | | 16:15 | 4 | | 1 | | | | |
| 04:30 | 0 | | 0 | | | | | 16:30 | 5 | | 4 | | | | |
| 04:45 | 0 | 1 | 0 | 1 | | | 2 | 16:45 | 3 | 13 | 1 | 8 | | | 21 |
| 05:00 | 0 | | 0 | | | | | 17:00 | 2 | | 3 | | | | |
| 05:15 | 0 | | 0 | | | | | 17:15 | 0 | | 1 | | | | |
| 05:30 | 0 | | 1 | | | | | 17:30 | 3 | | 4 | | | | |
| 05:45 | 0 | 0 | 2 | 3 | | | 3 | 17:45 | 2 | 7 | 1 | 9 | | | 16 |
| 06:00 | 0 | | 0 | | | | | 18:00 | 1 | | 2 | | | | |
| 06:15 | 0 | | 2 | | | | | 18:15 | 4 | | 1 | | | | |
| 06:30 | 0 | | 0 | | | | | 18:30 | 3 | | 1 | | | | |
| 06:45 | 3 | 3 | 3 | 5 | | | 8 | 18:45 | 4 | 12 | 2 | 6 | | | 18 |
| 07:00 | 0 | | 0 | | | | | 19:00 | 3 | | 2 | | | | |
| 07:15 | 2 | | 2 | | | | | 19:15 | 6 | | 1 | | | | |
| 07:30 | 0 | | 1 | | | | | 19:30 | 2 | | 2 | | | | |
| 07:45 | 0 | 2 | 3 | 6 | | | 8 | 19:45 | 6 | 17 | 0 | 5 | | | 22 |
| 08:00 | 2 | | 2 | | | | | 20:00 | 3 | | 1 | | | | |
| 08:15 | 2 | | 3 | | | | | 20:15 | 2 | | 1 | | | | |
| 08:30 | 4 | | 1 | | | | | 20:30 | 1 | | 0 | | | | |
| 08:45 | 2 | 10 | 3 | 9 | | | 19 | 20:45 | 2 | 8 | 0 | 2 | | | 10 |
| 09:00 | 0 | | 4 | | | | | 21:00 | 0 | | 1 | | | | |
| 09:15 | 3 | | 1 | | | | | 21:15 | 5 | | 0 | | | | |
| 09:30 | 4 | | 1 | | | | | 21:30 | 0 | | 0 | | | | |
| 09:45 | 1 | 8 | 2 | 8 | | | 16 | 21:45 | 3 | 8 | 0 | 1 | | | 9 |
| 10:00 | 4 | | 1 | | | | | 22:00 | 0 | | 2 | | | | |
| 10:15 | 5 | | 0 | | | | | 22:15 | 3 | | 0 | | | | |
| 10:30 | 0 | | 3 | | | | | 22:30 | 1 | | 0 | | | | |
| 10:45 | 3 | 12 | 5 | 9 | | | 21 | 22:45 | 3 | 7 | 2 | 4 | | | 11 |
| 11:00 | 1 | | 1 | | | | | 23:00 | 1 | | 0 | | | | |
| 11:15 | 1 | | 3 | | | | | 23:15 | 3 | | 0 | | | | |
| 11:30 | 0 | | 4 | | | | | 23:30 | 2 | | 1 | | | | |
| 11:45 | 3 | 5 | 2 | 10 | | | 15 | 23:45 | 3 | 9 | 1 | 2 | | | 11 |
| **Total Vol.** | | 45 | | 52 | | | **97** | | | 124 | | 68 | | | **192** |

**Daily Totals**

| NB | SB | EB | WB | Combined |
|---|---|---|---|---|
| 169 | 120 | | | **289** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 46.4% | 53.6% | **33.6%** | 64.6% | 35.4% | **66.4%** |
| **Peak Hour** | 09:30 | 10:45 | **10:00** | 19:00 | 13:30 | **13:45** |
| **Volume** | 14 | 13 | **21** | 17 | 10 | **23** |
| **P.H.F.** | 0.70 | 0.65 | **0.66** | 0.54 | 0.63 | **0.82** |

A12

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-005

Location: Clarence Ln Btwn Felicita Rd & Alexander Dr

| AM Period | NB | | SB | | EB | WB | | PM Period | NB | | SB | | EB | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | 12:00 | 3 | | 8 | | | | |
| 00:15 | 0 | | 0 | | | | | 12:15 | 6 | | 10 | | | | |
| 00:30 | 0 | | 0 | | | | | 12:30 | 5 | | 5 | | | | |
| 00:45 | 0 | 0 | 1 | 1 | | | 1 | 12:45 | 7 | 21 | 7 | 30 | | | 51 |
| 01:00 | 1 | | 2 | | | | | 13:00 | 5 | | 4 | | | | |
| 01:15 | 1 | | 0 | | | | | 13:15 | 6 | | 5 | | | | |
| 01:30 | 0 | | 3 | | | | | 13:30 | 3 | | 6 | | | | |
| 01:45 | 0 | 2 | 0 | 5 | | | 7 | 13:45 | 6 | 20 | 6 | 21 | | | 41 |
| 02:00 | 0 | | 1 | | | | | 14:00 | 7 | | 4 | | | | |
| 02:15 | 1 | | 0 | | | | | 14:15 | 3 | | 5 | | | | |
| 02:30 | 1 | | 1 | | | | | 14:30 | 6 | | 3 | | | | |
| 02:45 | 0 | 2 | 2 | 4 | | | 6 | 14:45 | 5 | 21 | 4 | 16 | | | 37 |
| 03:00 | 2 | | 3 | | | | | 15:00 | 6 | | 6 | | | | |
| 03:15 | 3 | | 2 | | | | | 15:15 | 7 | | 7 | | | | |
| 03:30 | 1 | | 0 | | | | | 15:30 | 9 | | 6 | | | | |
| 03:45 | 2 | 8 | 1 | 6 | | | 14 | 15:45 | 8 | 30 | 7 | 26 | | | 56 |
| 04:00 | 2 | | 3 | | | | | 16:00 | 9 | | 7 | | | | |
| 04:15 | 3 | | 1 | | | | | 16:15 | 8 | | 2 | | | | |
| 04:30 | 4 | | 0 | | | | | 16:30 | 10 | | 4 | | | | |
| 04:45 | 3 | 12 | 2 | 6 | | | 18 | 16:45 | 11 | 38 | 2 | 15 | | | 53 |
| 05:00 | 5 | | 3 | | | | | 17:00 | 13 | | 3 | | | | |
| 05:15 | 6 | | 4 | | | | | 17:15 | 18 | | 5 | | | | |
| 05:30 | 0 | | 5 | | | | | 17:30 | 20 | | 6 | | | | |
| 05:45 | 6 | 17 | 6 | 18 | | | 35 | 17:45 | 15 | 66 | 8 | 22 | | | 88 |
| 06:00 | 4 | | 8 | | | | | 18:00 | 10 | | 4 | | | | |
| 06:15 | 7 | | 10 | | | | | 18:15 | 8 | | 5 | | | | |
| 06:30 | 5 | | 13 | | | | | 18:30 | 6 | | 6 | | | | |
| 06:45 | 3 | 24 | 11 | 42 | | | 66 | 18:45 | 5 | 29 | 5 | 20 | | | 49 |
| 07:00 | 2 | | 18 | | | | | 19:00 | 6 | | 4 | | | | |
| 07:15 | 6 | | 16 | | | | | 19:15 | 3 | | 6 | | | | |
| 07:30 | 15 | | 8 | | | | | 19:30 | 6 | | 7 | | | | |
| 07:45 | 12 | 35 | 15 | 57 | | | 92 | 19:45 | 5 | 20 | 5 | 22 | | | 42 |
| 08:00 | 8 | | 10 | | | | | 20:00 | 7 | | 3 | | | | |
| 08:15 | 12 | | 9 | | | | | 20:15 | 5 | | 6 | | | | |
| 08:30 | 5 | | 5 | | | | | 20:30 | 6 | | 5 | | | | |
| 08:45 | 6 | 31 | 8 | 32 | | | 63 | 20:45 | 2 | 20 | 7 | 21 | | | 41 |
| 09:00 | 6 | | 9 | | | | | 21:00 | 6 | | 5 | | | | |
| 09:15 | 7 | | 6 | | | | | 21:15 | 3 | | 6 | | | | |
| 09:30 | 5 | | 8 | | | | | 21:30 | 6 | | 2 | | | | |
| 09:45 | 8 | 26 | 7 | 30 | | | 56 | 21:45 | 7 | 22 | 3 | 16 | | | 38 |
| 10:00 | 6 | | 4 | | | | | 22:00 | 5 | | 5 | | | | |
| 10:15 | 6 | | 5 | | | | | 22:15 | 3 | | 4 | | | | |
| 10:30 | 3 | | 6 | | | | | 22:30 | 2 | | 2 | | | | |
| 10:45 | 2 | 17 | 3 | 18 | | | 35 | 22:45 | 1 | 11 | 3 | 14 | | | 25 |
| 11:00 | 6 | | 6 | | | | | 23:00 | 3 | | 1 | | | | |
| 11:15 | 4 | | 5 | | | | | 23:15 | 2 | | 0 | | | | |
| 11:30 | 4 | | 5 | | | | | 23:30 | 1 | | 3 | | | | |
| 11:45 | 3 | 17 | 6 | 22 | | | 39 | 23:45 | 0 | 6 | 2 | 6 | | | 12 |
| **Total Vol.** | | 191 | | 241 | | | **432** | | | 304 | | 229 | | | **533** |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | **Daily Totals** | | |
| | | | | | | | | | NB | | SB | | EB | WB | **Combined** |
| | | | | | | | | | 495 | | 470 | | | | **965** |
| | | | **AM** | | | | | | | | **PM** | | | | |
| **Split %** | | 44.2% | | 55.8% | | | **44.8%** | | | 57.0% | | 43.0% | | | **55.2%** |
| **Peak Hour** | | 07:30 | | 06:30 | | | **07:00** | | | 17:00 | | 12:00 | | | **17:00** |
| **Volume** | | 47 | | 58 | | | **92** | | | 66 | | 30 | | | **88** |
| **P.H.F.** | | 0.78 | | 0.81 | | | **0.85** | | | 0.89 | | 0.75 | | | **0.85** |

A13

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-006

Location: Clarence Ln E/o Alexander Dr

| AM Period | NB | | SB | | EB | WB | | PM Period | NB | | SB | | EB | WB | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | 12:00 | 2 | | 1 | | | | |
| 00:15 | 1 | | 1 | | | | | 12:15 | 0 | | 2 | | | | |
| 00:30 | 3 | | 0 | | | | | 12:30 | 1 | | 3 | | | | |
| 00:45 | 2 | 6 | 1 | 2 | | | 8 | 12:45 | 3 | 6 | 0 | 6 | | | 12 |
| 01:00 | 0 | | 0 | | | | | 13:00 | 2 | | 2 | | | | |
| 01:15 | 0 | | 0 | | | | | 13:15 | 0 | | 1 | | | | |
| 01:30 | 0 | | 1 | | | | | 13:30 | 1 | | 0 | | | | |
| 01:45 | 3 | 3 | 0 | 1 | | | 4 | 13:45 | 0 | 3 | 0 | 3 | | | 6 |
| 02:00 | 1 | | 3 | | | | | 14:00 | 2 | | 1 | | | | |
| 02:15 | 0 | | 2 | | | | | 14:15 | 0 | | 3 | | | | |
| 02:30 | 0 | | 0 | | | | | 14:30 | 1 | | 2 | | | | |
| 02:45 | 0 | 1 | 1 | 6 | | | 7 | 14:45 | 3 | 6 | 1 | 7 | | | 13 |
| 03:00 | 2 | | 1 | | | | | 15:00 | 1 | | 2 | | | | |
| 03:15 | 1 | | 0 | | | | | 15:15 | 0 | | 3 | | | | |
| 03:30 | 0 | | 0 | | | | | 15:30 | 2 | | 2 | | | | |
| 03:45 | 0 | 3 | 1 | 2 | | | 5 | 15:45 | 1 | 4 | 2 | 9 | | | 13 |
| 04:00 | 1 | | 1 | | | | | 16:00 | 1 | | 4 | | | | |
| 04:15 | 2 | | 0 | | | | | 16:15 | 0 | | 1 | | | | |
| 04:30 | 2 | | 1 | | | | | 16:30 | 2 | | 2 | | | | |
| 04:45 | 1 | 6 | 2 | 4 | | | 10 | 16:45 | 1 | 4 | 6 | 13 | | | 17 |
| 05:00 | 0 | | 3 | | | | | 17:00 | 0 | | 6 | | | | |
| 05:15 | 3 | | 1 | | | | | 17:15 | 0 | | 2 | | | | |
| 05:30 | 2 | | 2 | | | | | 17:30 | 1 | | 2 | | | | |
| 05:45 | 0 | 5 | 3 | 9 | | | 14 | 17:45 | 1 | 2 | 5 | 15 | | | 17 |
| 06:00 | 1 | | 1 | | | | | 18:00 | 1 | | 4 | | | | |
| 06:15 | 2 | | 0 | | | | | 18:15 | 0 | | 2 | | | | |
| 06:30 | 2 | | 2 | | | | | 18:30 | 2 | | 1 | | | | |
| 06:45 | 2 | 7 | 1 | 4 | | | 11 | 18:45 | 1 | 4 | 0 | 7 | | | 11 |
| 07:00 | 4 | | 2 | | | | | 19:00 | 3 | | 1 | | | | |
| 07:15 | 2 | | 2 | | | | | 19:15 | 0 | | 2 | | | | |
| 07:30 | 0 | | 3 | | | | | 19:30 | 1 | | 1 | | | | |
| 07:45 | 1 | 7 | 6 | 13 | | | 20 | 19:45 | 2 | 6 | 2 | 6 | | | 12 |
| 08:00 | 2 | | 5 | | | | | 20:00 | 3 | | 0 | | | | |
| 08:15 | 3 | | 4 | | | | | 20:15 | 2 | | 0 | | | | |
| 08:30 | 1 | | 2 | | | | | 20:30 | 1 | | 0 | | | | |
| 08:45 | 2 | 8 | 3 | 14 | | | 22 | 20:45 | 0 | 6 | 1 | 1 | | | 7 |
| 09:00 | 2 | | 3 | | | | | 21:00 | 0 | | 0 | | | | |
| 09:15 | 1 | | 2 | | | | | 21:15 | 1 | | 2 | | | | |
| 09:30 | 3 | | 1 | | | | | 21:30 | 0 | | 0 | | | | |
| 09:45 | 0 | 6 | 2 | 8 | | | 14 | 21:45 | 0 | 1 | 0 | 2 | | | 3 |
| 10:00 | 0 | | 3 | | | | | 22:00 | 1 | | 1 | | | | |
| 10:15 | 1 | | 1 | | | | | 22:15 | 2 | | 2 | | | | |
| 10:30 | 2 | | 3 | | | | | 22:30 | 0 | | 0 | | | | |
| 10:45 | 3 | 6 | 2 | 9 | | | 15 | 22:45 | 0 | 3 | 2 | 5 | | | 8 |
| 11:00 | 2 | | 3 | | | | | 23:00 | 2 | | 1 | | | | |
| 11:15 | 2 | | 1 | | | | | 23:15 | 0 | | 0 | | | | |
| 11:30 | 3 | | 0 | | | | | 23:30 | 3 | | 0 | | | | |
| 11:45 | 0 | 7 | 3 | 7 | | | 14 | 23:45 | 1 | 6 | 1 | 2 | | | 8 |
| **Total Vol.** | | 65 | | 79 | | | **144** | | | 51 | | 76 | | | **127** |

**Daily Totals**

| NB | SB | EB | WB | Combined |
|---|---|---|---|---|
| 116 | 155 | | | **271** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 45.1% | 54.9% | **53.1%** | 40.2% | 59.8% | **46.9%** |
| **Peak Hour** | 06:15 | 07:30 | **07:30** | 19:30 | 16:30 | **16:30** |
| **Volume** | 10 | 18 | **24** | 8 | 16 | **19** |
| **P.H.F.** | 0.63 | 0.75 | **0.86** | 0.75 | 0.67 | **0.68** |

A14

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-007

Location: Via Rancho Pkwy W/o Felicita Dr

| AM Period | NB | SB | EB | | WB | | | PM Period | NB | SB | EB | | WB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 8 | | 5 | | | 12:00 | | | 70 | | 63 | | |
| 00:15 | | | 7 | | 5 | | | 12:15 | | | 88 | | 58 | | |
| 00:30 | | | 7 | | 6 | | | 12:30 | | | 99 | | 59 | | |
| 00:45 | | | 6 | 28 | 8 | 24 | 52 | 12:45 | | | 88 | 345 | 57 | 237 | 582 |
| 01:00 | | | 18 | | 12 | | | 13:00 | | | 45 | | 56 | | |
| 01:15 | | | 10 | | 12 | | | 13:15 | | | 68 | | 51 | | |
| 01:30 | | | 20 | | 8 | | | 13:30 | | | 32 | | 55 | | |
| 01:45 | | | 25 | 73 | 16 | 48 | 121 | 13:45 | | | 36 | 181 | 52 | 214 | 395 |
| 02:00 | | | 38 | | 20 | | | 14:00 | | | 61 | | 56 | | |
| 02:15 | | | 48 | | 13 | | | 14:15 | | | 86 | | 56 | | |
| 02:30 | | | 30 | | 14 | | | 14:30 | | | 119 | | 60 | | |
| 02:45 | | | 45 | 161 | 8 | 55 | 216 | 14:45 | | | 65 | 331 | 79 | 251 | 582 |
| 03:00 | | | 25 | | 8 | | | 15:00 | | | 66 | | 69 | | |
| 03:15 | | | 22 | | 8 | | | 15:15 | | | 70 | | 68 | | |
| 03:30 | | | 22 | | 12 | | | 15:30 | | | 88 | | 63 | | |
| 03:45 | | | 18 | 87 | 12 | 40 | 127 | 15:45 | | | 92 | 316 | 63 | 263 | 579 |
| 04:00 | | | 20 | | 9 | | | 16:00 | | | 100 | | 70 | | |
| 04:15 | | | 25 | | 14 | | | 16:15 | | | 110 | | 66 | | |
| 04:30 | | | 42 | | 16 | | | 16:30 | | | 177 | | 75 | | |
| 04:45 | | | 45 | 132 | 20 | 59 | 191 | 16:45 | | | 196 | 583 | 78 | 289 | 872 |
| 05:00 | | | 25 | | 29 | | | 17:00 | | | 160 | | 81 | | |
| 05:15 | | | 30 | | 24 | | | 17:15 | | | 142 | | 73 | | |
| 05:30 | | | 40 | | 23 | | | 17:30 | | | 105 | | 88 | | |
| 05:45 | | | 38 | 133 | 32 | 108 | 241 | 17:45 | | | 121 | 528 | 78 | 320 | 848 |
| 06:00 | | | 45 | | 42 | | | 18:00 | | | 129 | | 77 | | |
| 06:15 | | | 55 | | 46 | | | 18:15 | | | 104 | | 72 | | |
| 06:30 | | | 100 | | 59 | | | 18:30 | | | 113 | | 62 | | |
| 06:45 | | | 92 | 292 | 69 | 216 | 508 | 18:45 | | | 22 | 368 | 63 | 274 | 642 |
| 07:00 | | | 80 | | 84 | | | 19:00 | | | 26 | | 45 | | |
| 07:15 | | | 81 | | 92 | | | 19:15 | | | 27 | | 45 | | |
| 07:30 | | | 77 | | 81 | | | 19:30 | | | 20 | | 50 | | |
| 07:45 | | | 86 | 324 | 91 | 348 | 672 | 19:45 | | | 21 | 94 | 56 | 196 | 290 |
| 08:00 | | | 90 | | 98 | | | 20:00 | | | 22 | | 50 | | |
| 08:15 | | | 77 | | 103 | | | 20:15 | | | 26 | | 57 | | |
| 08:30 | | | 86 | | 125 | | | 20:30 | | | 35 | | 31 | | |
| 08:45 | | | 92 | 345 | 131 | 457 | 802 | 20:45 | | | 39 | 122 | 31 | 169 | 291 |
| 09:00 | | | 77 | | 116 | | | 21:00 | | | 44 | | 29 | | |
| 09:15 | | | 80 | | 125 | | | 21:15 | | | 52 | | 34 | | |
| 09:30 | | | 81 | | 114 | | | 21:30 | | | 23 | | 24 | | |
| 09:45 | | | 65 | 303 | 121 | 476 | 779 | 21:45 | | | 16 | 135 | 22 | 109 | 244 |
| 10:00 | | | 77 | | 123 | | | 22:00 | | | 13 | | 19 | | |
| 10:15 | | | 60 | | 119 | | | 22:15 | | | 22 | | 15 | | |
| 10:30 | | | 52 | | 113 | | | 22:30 | | | 13 | | 12 | | |
| 10:45 | | | 41 | 230 | 95 | 450 | 680 | 22:45 | | | 13 | 61 | 14 | 60 | 121 |
| 11:00 | | | 50 | | 113 | | | 23:00 | | | 10 | | 11 | | |
| 11:15 | | | 52 | | 102 | | | 23:15 | | | 9 | | 8 | | |
| 11:30 | | | 54 | | 119 | | | 23:30 | | | 12 | | 7 | | |
| 11:45 | | | 78 | 234 | 130 | 464 | 698 | 23:45 | | | 20 | 51 | 9 | 35 | 86 |
| **Tot. Vol.** | | | | 2342 | | 2745 | **5087** | | | | | 3115 | | 2417 | **5532** |

| Daily Totals | NB | SB | EB | WB | Combined |
|---|---|---|---|---|---|
| | | | 5457 | 5162 | **10619** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Split %** | 46.0% | 54.0% | **47.9%** | 56.3% | 43.7% | **52.1%** |
| **Peak Hour** | 06:30 | 08:30 | **08:30** | 16:30 | 16:45 | **16:30** |
| **Volume** | 353 | 497 | **832** | 675 | 320 | **982** |
| **P.H.F.** | 0.88 | 0.95 | **0.93** | 0.86 | 0.91 | **0.90** |

A-15

Volumes for: Tuesday, June 15, 2004 City: Escondido Project #: 04-4197-008

Location: Via Rancho Pkwy E/o Felicita Dr

| AM Period | NB | SB | EB | | WB | | | PM Period | NB | SB | EB | | WB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 10 | | 8 | | | 12:00 | | | 169 | | 12 | | |
| 00:15 | | | 6 | | 10 | | | 12:15 | | | 152 | | 11 | | |
| 00:30 | | | 4 | | 18 | | | 12:30 | | | 158 | | 10 | | |
| 00:45 | | | 8 | 28 | 10 | 46 | 74 | 12:45 | | | 133 | 612 | 18 | 51 | 663 |
| 01:00 | | | 6 | | 8 | | | 13:00 | | | 138 | | 27 | | |
| 01:15 | | | 4 | | 8 | | | 13:15 | | | 137 | | 32 | | |
| 01:30 | | | 3 | | 1 | | | 13:30 | | | 133 | | 30 | | |
| 01:45 | | | 4 | 17 | 6 | 23 | 40 | 13:45 | | | 126 | 534 | 30 | 119 | 653 |
| 02:00 | | | 2 | | 2 | | | 14:00 | | | 154 | | 42 | | |
| 02:15 | | | 2 | | 2 | | | 14:15 | | | 156 | | 57 | | |
| 02:30 | | | 2 | | 7 | | | 14:30 | | | 168 | | 40 | | |
| 02:45 | | | 2 | 8 | 4 | 15 | 23 | 14:45 | | | 156 | 634 | 37 | 176 | 810 |
| 03:00 | | | 3 | | 6 | | | 15:00 | | | 166 | | 42 | | |
| 03:15 | | | 3 | | 7 | | | 15:15 | | | 171 | | 39 | | |
| 03:30 | | | 6 | | 7 | | | 15:30 | | | 147 | | 47 | | |
| 03:45 | | | 6 | 18 | 8 | 28 | 46 | 15:45 | | | 161 | 645 | 50 | 178 | 823 |
| 04:00 | | | 24 | | 10 | | | 16:00 | | | 163 | | 60 | | |
| 04:15 | | | 12 | | 16 | | | 16:15 | | | 152 | | 77 | | |
| 04:30 | | | 6 | | 15 | | | 16:30 | | | 169 | | 64 | | |
| 04:45 | | | 12 | 54 | 20 | 61 | 115 | 16:45 | | | 172 | 656 | 59 | 260 | 916 |
| 05:00 | | | 16 | | 19 | | | 17:00 | | | 208 | | 88 | | |
| 05:15 | | | 27 | | 17 | | | 17:15 | | | 214 | | 77 | | |
| 05:30 | | | 50 | | 18 | | | 17:30 | | | 212 | | 90 | | |
| 05:45 | | | 58 | 151 | 20 | 74 | 225 | 17:45 | | | 181 | 815 | 77 | 332 | 1147 |
| 06:00 | | | 92 | | 31 | | | 18:00 | | | 182 | | 70 | | |
| 06:15 | | | 84 | | 22 | | | 18:15 | | | 151 | | 62 | | |
| 06:30 | | | 94 | | 40 | | | 18:30 | | | 143 | | 50 | | |
| 06:45 | | | 84 | 354 | 37 | 130 | 484 | 18:45 | | | 142 | 618 | 32 | 214 | 832 |
| 07:00 | | | 89 | | 70 | | | 19:00 | | | 101 | | 20 | | |
| 07:15 | | | 88 | | 99 | | | 19:15 | | | 108 | | 18 | | |
| 07:30 | | | 101 | | 112 | | | 19:30 | | | 105 | | 15 | | |
| 07:45 | | | 106 | 384 | 108 | 389 | 773 | 19:45 | | | 135 | 449 | 17 | 70 | 519 |
| 08:00 | | | 110 | | 90 | | | 20:00 | | | 120 | | 20 | | |
| 08:15 | | | 103 | | 77 | | | 20:15 | | | 122 | | 17 | | |
| 08:30 | | | 118 | | 88 | | | 20:30 | | | 82 | | 17 | | |
| 08:45 | | | 116 | 447 | 92 | 347 | 794 | 20:45 | | | 71 | 395 | 11 | 65 | 460 |
| 09:00 | | | 93 | | 77 | | | 21:00 | | | 80 | | 8 | | |
| 09:15 | | | 90 | | 80 | | | 21:15 | | | 86 | | 7 | | |
| 09:30 | | | 91 | | 81 | | | 21:30 | | | 67 | | 9 | | |
| 09:45 | | | 88 | 362 | 92 | 330 | 692 | 21:45 | | | 80 | 313 | 10 | 34 | 347 |
| 10:00 | | | 72 | | 60 | | | 22:00 | | | 62 | | 12 | | |
| 10:15 | | | 86 | | 56 | | | 22:15 | | | 55 | | 10 | | |
| 10:30 | | | 80 | | 60 | | | 22:30 | | | 64 | | 8 | | |
| 10:45 | | | 74 | 312 | 61 | 237 | 549 | 22:45 | | | 41 | 222 | 7 | 37 | 259 |
| 11:00 | | | 88 | | 47 | | | 23:00 | | | 31 | | 6 | | |
| 11:15 | | | 86 | | 51 | | | 23:15 | | | 22 | | 7 | | |
| 11:30 | | | 106 | | 42 | | | 23:30 | | | 22 | | 2 | | |
| 11:45 | | | 121 | 401 | 39 | 179 | 580 | 23:45 | | | 22 | 97 | 3 | 18 | 115 |
| **Tot Vol.** | | | | 2536 | | 1859 | **4395** | | | | | 5990 | | 1554 | **7544** |

**Daily Totals**

| NB | SB | EB | WB | Combined |
|---|---|---|---|---|
| | | 8526 | 3413 | **11939** |

| | AM | | | PM | | |
|---|---|---|---|---|---|---|
| **Sp %** | 57.7% | 42.3% | **36.8%** | 79.4% | 20.6% | **63.2%** |
| **Pea our** | 11:45 | 07:15 | **07:15** | 17:00 | 17:00 | **17:00** |
| **Vr ne** | 600 | 409 | **814** | 815 | 332 | **1147** |
| **P. F.** | #REF! | 0.91 | **0.95** | 0.95 | 0.92 | **0.95** |

A16

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: I-15 NB DATE: 10/14/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy/Bear Valley I DAY: THURSDAY PROJECT# 04-4332-002

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 0 | |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | 20 | 5 | 75 | 4 | 25 | 3 | 7 | 111 | 17 | 82 | 271 | 5 | 625 |
| 7:15 AM | 23 | 4 | 69 | 3 | 30 | 3 | 6 | 151 | 21 | 91 | 264 | 5 | 670 |
| 7:30 AM | 21 | 6 | 90 | 0 | 18 | 2 | 6 | 72 | 15 | 77 | 294 | 4 | 605 |
| 7:45 AM | 37 | 22 | 90 | 0 | 4 | 1 | 9 | 128 | 28 | 61 | 229 | 4 | 613 |
| 8:00 AM | 33 | 15 | 80 | 0 | 8 | 2 | 10 | 86 | 36 | 85 | 262 | 8 | 625 |
| 8:15 AM | 30 | 16 | 99 | 2 | 14 | 2 | 15 | 58 | 14 | 78 | 309 | 3 | 640 |
| 8:30 AM | 28 | 25 | 94 | 4 | 4 | 5 | 14 | 34 | 13 | 58 | 219 | 1 | 499 |
| 8:45 AM | 36 | 41 | 115 | 5 | 12 | 10 | 14 | 46 | 30 | 58 | 205 | 8 | 580 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 228 | NT 134 | NR 712 | SL 18 | ST 115 | SR 28 | EL 81 | ET 686 | ER 174 | WL 590 | WT 2053 | WR 38 | TOTAL 4857 |

AM Peak Hr Begins at: 715 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 114 | 47 | 329 | 3 | 60 | 8 | 31 | 437 | 100 | 314 | 1049 | 21 | 2513 |
| PEAK HR. FACTOR: | | 0.822 | | | 0.493 | | | 0.798 | | | 0.923 | | 0.938 |

CONTROL: signalized

#17

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: I-15 NB DATE: 10/14/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy/Bear Valley F DAY: THURSDAY PROJECT# 04-4332-002

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 0 | |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 65 | 35 | 176 | 8 | 66 | 49 | 61 | 108 | 44 | 74 | 142 | 4 | 832 |
| 4:15 PM | 78 | 54 | 238 | 9 | 55 | 47 | 41 | 114 | 54 | 101 | 183 | 4 | 978 |
| 4:30 PM | 68 | 44 | 212 | 7 | 52 | 44 | 50 | 122 | 52 | 79 | 169 | 7 | 906 |
| 4:45 PM | 80 | 60 | 233 | 5 | 58 | 51 | 57 | 143 | 48 | 88 | 165 | 8 | 996 |
| 5:00 PM | 78 | 62 | 266 | 16 | 68 | 53 | 57 | 160 | 51 | 95 | 176 | 12 | 1094 |
| 5:15 PM | 95 | 50 | 237 | 12 | 59 | 43 | 66 | 164 | 36 | 120 | 216 | 11 | 1109 |
| 5:30 PM | 94 | 67 | 284 | 10 | 72 | 42 | 47 | 159 | 46 | 81 | 182 | 7 | 1091 |
| 5:45 PM | 106 | 53 | 305 | 7 | 51 | 31 | 63 | 223 | 49 | 111 | 184 | 9 | 1192 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 664 | NT 425 | NR 1951 | SL 74 | ST 481 | SR 360 | EL 442 | ET 1193 | ER 380 | WL 749 | WT 1417 | WR 62 | TOTAL 8198 |

PM Peak Hr Begins at: 500 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 373 | 232 | 1092 | 45 | 250 | 169 | 233 | 706 | 182 | 407 | 758 | 39 | 4486 |
| PEAK HR. FACTOR: | | 0.914 | | | 0.847 | | | 0.837 | | | 0.867 | | 0.941 |

CONTROL: signalized

A18

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: I-15 SB DATE: 10/12/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy/ Del Lago DAY: TUESDAY PROJECT# 04-4332-001

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | |
| 6:00 AM | | | | | | | | | | | | | |
| 6:15 AM | | | | | | | | | | | | | |
| 6:30 AM | | | | | | | | | | | | | |
| 6:45 AM | | | | | | | | | | | | | |
| 7:00 AM | 0 | 4 | 11 | 3 | 90 | 12 | 20 | 111 | 120 | 133 | 112 | 9 | 625 |
| 7:15 AM | 0 | 5 | 10 | 4 | 97 | 14 | 26 | 116 | 126 | 135 | 99 | 9 | 641 |
| 7:30 AM | 0 | 11 | 6 | 2 | 78 | 13 | 29 | 75 | 142 | 185 | 118 | 11 | 670 |
| 7:45 AM | 1 | 11 | 20 | 7 | 107 | 15 | 20 | 154 | 135 | 189 | 72 | 16 | 747 |
| 8:00 AM | 2 | 13 | 24 | 9 | 97 | 15 | 24 | 85 | 176 | 185 | 112 | 15 | 757 |
| 8:15 AM | 1 | 15 | 18 | 14 | 106 | 4 | 26 | 66 | 179 | 188 | 108 | 11 | 736 |
| 8:30 AM | 6 | 18 | 40 | 20 | 98 | 18 | 30 | 43 | 101 | 242 | 62 | 15 | 693 |
| 8:45 AM | 6 | 22 | 55 | 19 | 124 | 8 | 14 | 35 | 153 | 216 | 57 | 15 | 724 |
| 9:00 AM | | | | | | | | | | | | | |
| 9:15 AM | | | | | | | | | | | | | |
| 9:30 AM | | | | | | | | | | | | | |
| 9:45 AM | | | | | | | | | | | | | |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 16 | NT 99 | NR 184 | SL 78 | ST 797 | SR 99 | EL 189 | ET 685 | ER 1132 | WL 1473 | WT 740 | WR 101 | TOTAL 5593 |

AM Peak Hr Begins at: 745 AM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 10 | 57 | 102 | 50 | 408 | 52 | 100 | 348 | 591 | 804 | 354 | 57 | 2933 |
| PEAK HR. FACTOR: | | 0.660 | | | 0.938 | | | 0.841 | | | 0.952 | | 0.969 |

CONTROL: signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: I-15 SB DATE: 10/12/2004 LOCATION: City of Escondido

E-W STREET: Via Rancho Pkwy/ Del Lago DAY: TUESDAY PROJECT# 04-4332-001

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | |
| 1:00 PM | | | | | | | | | | | | | |
| 1:15 PM | | | | | | | | | | | | | |
| 1:30 PM | | | | | | | | | | | | | |
| 1:45 PM | | | | | | | | | | | | | |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 6 | 38 | 101 | 24 | 37 | 14 | 11 | 33 | 38 | 100 | 63 | 5 | 470 |
| 4:15 PM | 9 | 34 | 148 | 37 | 46 | 6 | 9 | 54 | 42 | 238 | 116 | 7 | 746 |
| 4:30 PM | 20 | 65 | 145 | 33 | 44 | 12 | 8 | 45 | 29 | 215 | 79 | 2 | 697 |
| 4:45 PM | 20 | 63 | 166 | 39 | 36 | 12 | 4 | 57 | 23 | 196 | 114 | 6 | 736 |
| 5:00 PM | 13 | 58 | 163 | 43 | 52 | 11 | 5 | 41 | 26 | 201 | 115 | 8 | 736 |
| 5:15 PM | 23 | 40 | 157 | 60 | 52 | 15 | 12 | 54 | 31 | 191 | 141 | 6 | 782 |
| 5:30 PM | 10 | 51 | 195 | 55 | 42 | 23 | 7 | 66 | 27 | 182 | 131 | 12 | 801 |
| 5:45 PM | 14 | 59 | 221 | 48 | 25 | 16 | 18 | 53 | 27 | 156 | 130 | 5 | 772 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |
| TOTAL VOLUMES = | NL 115 | NT 408 | NR 1296 | SL 339 | ST 334 | SR 109 | EL 74 | ET 403 | ER 243 | WL 1479 | WT 889 | WR 51 | TOTAL 5740 |

PM Peak Hr Begins at: 500 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 60 | 208 | 736 | 206 | 171 | 65 | 42 | 214 | 111 | 730 | 517 | 31 | 3091 |
| PEAK HR. FACTOR: | | 0.854 | | | 0.870 | | | 0.918 | | | 0.945 | | 0.965 |

CONTROL: signalized

A20

# APPENDIX B
# Existing Conditions Worksheets
# (Without and With Project)

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 39 | 322 | 3 | 3 | 358 | 74 | 0 | 10 | 2 | 70 | 22 | 49 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.24 | 0.10 | 42.2 | D | | |
| TR | 569 | 1898 | 0.63 | 0.30 | 32.6 | C | 33.6 | C |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1851 | 0.86 | 0.30 | 46.5 | D | 46.5 | D |
| Northbound | | | | | | | | |
| LTR | 149 | 1861 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 586 | 1830 | 0.17 | 0.32 | 24.6 | C | 24.4 | C |
| R | 517 | 1615 | 0.10 | 0.32 | 24.0 | C | | |

Intersection Delay = 38.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 40 | 643 | 1 | 2 | 297 | 98 | 1 | 8 | 0 | 270 | 10 | 32 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.31 | 0.08 | 44.6 | D | | |
| TR | 798 | 1900 | 0.90 | 0.42 | 39.8 | D | 40.0 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 768 | 1829 | 0.57 | 0.42 | 23.2 | C | 23.3 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.78 | 0.22 | 46.3 | D | 44.7 | D |
| R | 355 | 1615 | 0.10 | 0.22 | 31.2 | C | | |

Intersection Delay = 36.3 (sec/veh) Intersection LOS = D

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 10 | 1 | 1 | 18 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 10 | 1 | 1 | 18 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 6 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 6 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 12 | |
| C(m) (vph) | 1611 | 1621 | | 1077 | | | 1003 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.2 | 7.2 | | 8.3 | | | 8.6 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.3 | | | 8.6 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 15 | 4 | 1 | 13 | 5 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 15 | 4 | 1 | 13 | 5 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 2 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 2 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 7 | |
| C(m) (vph) | 1612 | 1611 | | 981 | | | 1035 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 101 | 8 | 27 | 182 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 101 | 8 | 27 | 182 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 20 | 0 | 39 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 20 | 0 | 39 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 27 | | 59 | | | 4 | |
| C(m) (vph) | 1404 | 1494 | | 794 | | | 556 | |
| v/c | 0.00 | 0.02 | | 0.07 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.24 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 9.9 | | | 11.5 | |
| LOS | A | A | | A | | | B | |
| Approach Delay | | | | 9.9 | | | 11.5 | |
| Approach LOS | | | | A | | | B | |

BS

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 107 | 35 | 33 | 112 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 107 | 35 | 33 | 112 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 12 | 0 | 11 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 12 | 0 | 11 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 33 | | 23 | | | 4 | |
| C(m) (vph) | 1487 | 1453 | | 750 | | | 751 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.09 | | | 0.02 | |
| Control Delay | 7.4 | 7.5 | | 10.0- | | | 9.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 10.0- | | | 9.8 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 101 | 3 | 0 | 187 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 101 | 3 | 0 | 187 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | | 0 | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 0 | | 8 | | | | |
| C(m) (vph) | | 1500 | | 784 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.4 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 141 | 3 | 2 | 122 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 141 | 3 | 2 | 122 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 2 | | 8 | | | | |
| C(m) (vph) | | 1451 | | 785 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.5 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | AM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Existing |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

Two-way hourly volume, V 794 veh/h
Directional split 56 / 44 %

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.2 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.990 | |
| Two-way flow rate,(note-1) vp | 911 | pc/h |
| Highest directional split proportion (note-2) | 510 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 2.8 | mi/h |
| Average travel speed, ATS | 42.6 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.995 | |
| Two-way flow rate,(note-1) vp | 907 | pc/h |
| Highest directional split proportion (note-2) | 508 | |
| Base percent time-spent-following, BPTSF | 54.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 13.6 | |
| Percent time-spent-following, PTSF | 68.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.28 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 226 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 794 | veh-mi |
| Peak 15-min total travel time, TT15 | 5.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | PM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Existing |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 1147 | veh/h | |
| Directional split | 71 / 29 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.995 | |
| Two-way flow rate,(note-1) vp | 1310 | pc/h |
| Highest directional split proportion (note-2) | 930 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 40.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.0 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 1.000 | |
| Two-way flow rate,(note-1) vp | 1303 | pc/h |
| Highest directional split proportion (note-2) | 925 | |
| Base percent time-spent-following, BPTSF | 68.2 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 9.5 | |
| Percent time-spent-following, PTSF | 77.6 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.41 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 326 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1147 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 39 | 322 | 3 | 3 | 358 | 75 | 0 | 10 | 2 | 72 | 22 | 49 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.24 | 0.10 | 42.2 | D | | |
| TR | 569 | 1898 | 0.63 | 0.30 | 32.6 | C | 33.6 | C |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1851 | 0.87 | 0.30 | 46.7 | D | 46.7 | D |
| Northbound | | | | | | | | |
| LTR | 149 | 1861 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 586 | 1830 | 0.18 | 0.32 | 24.7 | C | 24.4 | C |
| R | 517 | 1615 | 0.10 | 0.32 | 24.0 | C | | |

Intersection Delay = 38.3 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 40 | 643 | 1 | 2 | 297 | 101 | 1 | 8 | 0 | 271 | 10 | 32 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.31 | 0.08 | 44.6 | D | | |
| TR | 798 | 1900 | 0.90 | 0.42 | 39.8 | D | 40.0 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 768 | 1828 | 0.58 | 0.42 | 23.2 | C | 23.3 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.78 | 0.22 | 46.5 | D | 44.9 | D |
| R | 355 | 1615 | 0.10 | 0.22 | 31.2 | C | | |

Intersection Delay = 36.4 (sec/veh) Intersection LOS = D

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 10 | 1 | 1 | 18 | 2 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 10 | 1 | 1 | 18 | 2 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 7 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 7 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 13 | |
| C(m) (vph) | 1609 | 1621 | | 1077 | | | 997 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.3 | 7.2 | | 8.3 | | | 8.7 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.3 | | | 8.7 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 15 | 4 | 1 | 13 | 7 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 15 | 4 | 1 | 13 | 7 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 3 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 3 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 8 | |
| C(m) (vph) | 1609 | 1611 | | 980 | | | 1025 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 102 | 8 | 27 | 184 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 102 | 8 | 27 | 184 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 20 | 0 | 39 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 20 | 0 | 39 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 27 | | 59 | | | 4 | |
| C(m) (vph) | 1402 | 1493 | | 791 | | | 553 | |
| v/c | 0.00 | 0.02 | | 0.07 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.24 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 9.9 | | | 11.6 | |
| LOS | A | A | | A | | | B | |
| Approach Delay | | | | 9.9 | | | 11.6 | |
| Approach LOS | | | | A | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 110 | 35 | 33 | 113 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 110 | 35 | 33 | 113 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | 'LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 12 | 0 | 11 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 12 | 0 | 11 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 33 | | 23 | | | 4 | |
| C(m) (vph) | 1485 | 1450 | | 744 | | | 750 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.10 | | | 0.02 | |
| Control Delay | 7.4 | 7.5 | | 10.0- | | | 9.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 10.0- | | | 9.8 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 101 | 4 | 1 | 187 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 101 | 4 | 1 | 187 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 7 | | 5 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 7 | | 5 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | | 0 | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 1 | | 12 | | | | |
| C(m) (vph) | | 1499 | | 790 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.00 | | 0.05 | | | | |
| Control Delay | | 7.4 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 141 | 6 | 4 | 122 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 141 | 6 | 4 | 122 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 6 | | 4 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 6 | | 4 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 4 | | 10 | | | | |
| C(m) (vph) | | 1447 | | 784 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.01 | | 0.04 | | | | |
| Control Delay | | 7.5 | | 9.7 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.7 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | AM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Existing+Project |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

| | | | | |
|---|---|---|---|---|
| Two-way hourly volume, V | 797 | | | veh/h |
| Directional split | 56 | / | 44 | % |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.2 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.990 | |
| Two-way flow rate,(note-1) vp | 915 | pc/h |
| Highest directional split proportion (note-2) | 512 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 2.8 | mi/h |
| Average travel speed, ATS | 42.6 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.995 | |
| Two-way flow rate,(note-1) vp | 910 | pc/h |
| Highest directional split proportion (note-2) | 510 | |
| Base percent time-spent-following, BPTSF | 55.1 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 13.6 | |
| Percent time-spent-following, PTSF | 68.6 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.29 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 226 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 797 | veh-mi |
| Peak 15-min total travel time, TT15 | 5.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | PM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Existing+Project |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 1151 | veh/h | |
| Directional split | 71 / 29 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.995 | |
| Two-way flow rate,(note-1) vp | 1314 | pc/h |
| Highest directional split proportion (note-2) | 933 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 40.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.0 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 1.000 | |
| Two-way flow rate,(note-1) vp | 1308 | pc/h |
| Highest directional split proportion (note-2) | 929 | |
| Base percent time-spent-following, BPTSF | 68.3 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 9.4 | |
| Percent time-spent-following, PTSF | 77.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.41 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 327 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1151 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing
N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 31 | 437 | 100 | 314 | 1049 | 21 | 114 | 47 | 329 | 45 | 60 | 8 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.09 | 0.11 | 38.5 | D | | |
| T | 836 | 3610 | 0.58 | 0.23 | 33.4 | C | 33.2 | C |
| R | 374 | 1615 | 0.30 | 0.23 | 30.6 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.38 | 0.26 | 28.9 | C | | |
| TR | 1742 | 5172 | 0.68 | 0.34 | 28.2 | C | 28.4 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.32 | 0.22 | 31.5 | C | | |
| T | 950 | 3610 | 0.05 | 0.26 | 26.2 | C | 16.4 | B |
| R | 1645 | 2842 | 0.22 | 0.58 | 9.7 | A | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.33 | 0.08 | 42.2 | D | | |
| T | 646 | 3610 | 0.10 | 0.18 | 32.7 | C | 35.7 | D |
| R | 544 | 1615 | 0.02 | 0.34 | 21.0 | C | | |

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 233 | 706 | 182 | 407 | 758 | 39 | 373 | 232 | 1092 | 3 | 250 | 169 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | A | | | WB | Right | | | | |
| Green | 10.0 | 3.0 | 25.0 | | | | 12.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.70 | 0.11 | 46.9 | D | | |
| T | 950 | 3610 | 0.83 | 0.26 | 39.0 | D | 39.2 | D |
| R | 425 | 1615 | 0.48 | 0.26 | 30.3 | C | | |
| Westbound | | | | | | | | |
| L | 664 | 3502 | 0.68 | 0.19 | 38.7 | D | | |
| TR | 1518 | 5149 | 0.58 | 0.29 | 29.1 | C | 32.3 | C |
| Northbound | | | | | | | | |
| L | 475 | 1805 | 0.87 | 0.26 | 49.6 | D | | |
| T | 950 | 3610 | 0.27 | 0.26 | 27.9 | C | 30.9 | C |
| R | 1436 | 2842 | 0.84 | 0.51 | 25.1 | C | | |
| Southbound | | | | | | | | |
| L | 228 | 1805 | 0.01 | 0.13 | 36.3 | D | | |
| T | 646 | 3610 | 0.43 | 0.18 | 35.2 | D | 28.4 | C |
| R | 680 | 1615 | 0.28 | 0.42 | 18.2 | B | | |

Intersection Delay = 33.1 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Project

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 31 | 437 | 100 | 314 | 1049 | 21 | 115 | 47 | 329 | 45 | 60 | 8 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.09 | 0.11 | 38.5 | D | | |
| T | 836 | 3610 | 0.58 | 0.23 | 33.4 | C | 33.2 | C |
| R | 374 | 1615 | 0.30 | 0.23 | 30.6 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.38 | 0.26 | 28.9 | C | | |
| TR | 1742 | 5172 | 0.68 | 0.34 | 28.2 | C | 28.4 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.32 | 0.22 | 31.5 | C | | |
| T | 950 | 3610 | 0.05 | 0.26 | 26.2 | C | 16.4 | B |
| R | 1645 | 2842 | 0.22 | 0.58 | 9.7 | A | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.33 | 0.08 | 42.2 | D | | |
| T | 646 | 3610 | 0.10 | 0.18 | 32.7 | C | 35.7 | D |
| R | 544 | 1615 | 0.02 | 0.34 | 21.0 | C | | |

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Project

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 233 | 706 | 183 | 407 | 758 | 39 | 375 | 232 | 1092 | 3 | 250 | 169 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | A | | | WB | Right | | | | |
| Green | 10.0 | 3.0 | 25.0 | | | | 12.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.70 | 0.11 | 46.9 | D | | |
| T | 950 | 3610 | 0.83 | 0.26 | 39.0 | D | 39.2 | D |
| R | 425 | 1615 | 0.48 | 0.26 | 30.3 | C | | |
| Westbound | | | | | | | | |
| L | 664 | 3502 | 0.68 | 0.19 | 38.7 | D | | |
| TR | 1518 | 5149 | 0.58 | 0.29 | 29.1 | C | 32.3 | C |
| Northbound | | | | | | | | |
| L | 475 | 1805 | 0.88 | 0.26 | 50.4 | D | | |
| T | 950 | 3610 | 0.27 | 0.26 | 27.9 | C | 31.1 | C |
| R | 1436 | 2842 | 0.84 | 0.51 | 25.1 | C | | |
| Southbound | | | | | | | | |
| L | 228 | 1805 | 0.01 | 0.13 | 36.3 | D | | |
| T | 646 | 3610 | 0.43 | 0.18 | 35.2 | D | 28.4 | C |
| R | 680 | 1615 | 0.28 | 0.42 | 18.2 | B | | |

Intersection Delay = 33.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 100 | 348 | 591 | 804 | 354 | 57 | 10 | 57 | 102 | 50 | 408 | 52 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | A | | |
| Right | | | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | A | | |
| Right | | A | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.55 | 0.11 | 41.2 | D | | |
| T | 923 | 3610 | 0.42 | 0.26 | 28.2 | C | 42.4 | D |
| R | 682 | 1615 | 0.96 | 0.42 | 50.9 | D | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 0.92 | 0.28 | 44.8 | D | | |
| T | 1324 | 3610 | 0.30 | 0.37 | 20.4 | C | 36.0 | D |
| R | 861 | 1615 | 0.07 | 0.53 | 10.2 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.05 | 0.11 | 35.9 | D | | |
| T | 682 | 3610 | 0.09 | 0.19 | 30.2 | C | 19.0 | B |
| R | 843 | 1615 | 0.13 | 0.52 | 11.1 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.28 | 0.11 | 37.5 | D | | |
| T | 682 | 3610 | 0.66 | 0.19 | 36.3 | D | 33.8 | C |
| R | 843 | 1615 | 0.07 | 0.52 | 10.7 | B | | |

Intersection Delay = 36.9 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 42 | 214 | 111 | 730 | 517 | 31 | 60 | 208 | 736 | 206 | 171 | 65 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | | A | | | Thru | | | A | |
| | Right | | | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | A | | |
| | Thru | | A | A | | | Thru | | A | A | |
| | Right | | A | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | A | | | |
| SB | Right | A | A | | | WB | Right | A | | | |
| Green | | 8.0 | 10.0 | 14.0 | | | | 10.0 | 10.0 | 18.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 160 | 1805 | 0.29 | 0.09 | 39.4 | D | | |
| T | 562 | 3610 | 0.42 | 0.16 | 34.9 | C | 31.7 | C |
| R | 520 | 1615 | 0.24 | 0.32 | 22.6 | C | | |
| Westbound | | | | | | | | |
| L | 895 | 3502 | 0.91 | 0.26 | 45.2 | D | | |
| T | 963 | 3610 | 0.60 | 0.27 | 29.8 | C | 38.2 | D |
| R | 700 | 1615 | 0.05 | 0.43 | 14.8 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.33 | 0.11 | 37.9 | D | | |
| T | 722 | 3610 | 0.32 | 0.20 | 31.0 | C | 46.0 | D |
| R | 825 | 1615 | 0.99 | 0.51 | 50.9 | D | | |
| Southbound | | | | | | | | |
| L | 501 | 1805 | 0.46 | 0.28 | 27.5 | C | | |
| T | 1123 | 3610 | 0.17 | 0.31 | 22.6 | C | 22.6 | C |
| R | 1005 | 1615 | 0.07 | 0.62 | 6.8 | A | | |

Intersection Delay = 37.8 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Project

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 100 | 349 | 592 | 804 | 355 | 57 | 10 | 57 | 102 | 50 | 408 | 52 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | A | | |
| Right | | | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | A | | |
| Right | | A | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.55 | 0.11 | 41.2 | D | | |
| T | 923 | 3610 | 0.42 | 0.26 | 28.3 | C | 42.6 | D |
| R | 682 | 1615 | 0.96 | 0.42 | 51.3 | D | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 0.92 | 0.28 | 44.8 | D | | |
| T | 1324 | 3610 | 0.30 | 0.37 | 20.4 | C | 36.0 | D |
| R | 861 | 1615 | 0.07 | 0.53 | 10.2 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.05 | 0.11 | 35.9 | D | | |
| T | 682 | 3610 | 0.09 | 0.19 | 30.2 | C | 19.0 | B |
| R | 843 | 1615 | 0.13 | 0.52 | 11.1 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.28 | 0.11 | 37.5 | D | | |
| T | 682 | 3610 | 0.66 | 0.19 | 36.3 | D | 33.8 | C |
| R | 843 | 1615 | 0.07 | 0.52 | 10.7 | B | | |

Intersection Delay = 37.0 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Project

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 42 | 214 | 112 | 730 | 519 | 31 | 61 | 208 | 736 | 206 | 171 | 65 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | | A | | | Thru | | | A | |
| | Right | | | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | A | | |
| | Thru | | A | A | | | Thru | | A | A | |
| | Right | | A | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | A | | | |
| SB | Right | A | A | | | WB | Right | A | | | |
| Green | | 8.0 | 10.0 | 14.0 | | | | 10.0 | 10.0 | 18.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 160 | 1805 | 0.29 | 0.09 | 39.4 | D | | |
| T | 562 | 3610 | 0.42 | 0.16 | 34.9 | C | 31.7 | C |
| R | 520 | 1615 | 0.24 | 0.32 | 22.6 | C | | |
| Westbound | | | | | | | | |
| L | 895 | 3502 | 0.91 | 0.26 | 45.2 | D | | |
| T | 963 | 3610 | 0.60 | 0.27 | 29.8 | C | 38.2 | D |
| R | 700 | 1615 | 0.05 | 0.43 | 14.8 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.34 | 0.11 | 37.9 | D | | |
| T | 722 | 3610 | 0.32 | 0.20 | 31.0 | C | 46.0 | D |
| R | 825 | 1615 | 0.99 | 0.51 | 50.9 | D | | |
| Southbound | | | | | | | | |
| L | 501 | 1805 | 0.46 | 0.28 | 27.5 | C | | |
| T | 1123 | 3610 | 0.17 | 0.31 | 22.6 | C | 22.6 | C |
| R | 1005 | 1615 | 0.07 | 0.62 | 6.8 | A | | |

Intersection Delay = 37.8 (sec/veh) Intersection LOS = D

# APPENDIX C
# Near Term Cumulative Worksheets
# (Without and With Project)

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Others

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 39 | 322 | 3 | 3 | 358 | 74 | 0 | 10 | 2 | 71 | 22 | 49 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.24 | 0.10 | 42.2 | D | | |
| TR | 569 | 1898 | 0.63 | 0.30 | 32.6 | C | 33.6 | C |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1851 | 0.86 | 0.30 | 46.5 | D | 46.5 | D |
| Northbound | | | | | | | | |
| LTR | 149 | 1861 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 586 | 1830 | 0.18 | 0.32 | 24.6 | C | 24.4 | C |
| R | 517 | 1615 | 0.10 | 0.32 | 24.0 | C | | |

Intersection Delay = 38.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Others

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 40 | 643 | 1 | 2 | 297 | 99 | 1 | 8 | 0 | 270 | 10 | 32 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.31 | 0.08 | 44.6 | D | | |
| TR | 798 | 1900 | 0.90 | 0.42 | 39.8 | D | 40.0 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 768 | 1829 | 0.57 | 0.42 | 23.2 | C | 23.3 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.78 | 0.22 | 46.3 | D | 44.7 | D |
| R | 355 | 1615 | 0.10 | 0.22 | 31.2 | C | | |

Intersection Delay = 36.3 (sec/veh) Intersection LOS = D

C2

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Cumulative

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 39 | 322 | 3 | 3 | 358 | 75 | 0 | 10 | 2 | 73 | 22 | 49 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.24 | 0.10 | 42.2 | D | | |
| TR | 569 | 1898 | 0.63 | 0.30 | 32.6 | C | 33.6 | C |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1851 | 0.87 | 0.30 | 46.7 | D | 46.7 | D |
| Northbound | | | | | | | | |
| LTR | 149 | 1861 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 585 | 1829 | 0.18 | 0.32 | 24.7 | C | 24.4 | C |
| R | 517 | 1615 | 0.10 | 0.32 | 24.0 | C | | |

Intersection Delay = 38.3 (sec/veh) Intersection LOS = D

C3

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Cumulative

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 40 | 643 | 1 | 2 | 297 | 102 | 1 | 8 | 0 | 271 | 10 | 32 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.31 | 0.08 | 44.6 | D | | |
| TR | 798 | 1900 | 0.90 | 0.42 | 39.8 | D | 40.0 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 767 | 1827 | 0.58 | 0.42 | 23.3 | C | 23.4 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.78 | 0.22 | 46.5 | D | 44.9 | D |
| R | 355 | 1615 | 0.10 | 0.22 | 31.2 | C | | |

Intersection Delay = 36.4 (sec/veh) Intersection LOS = D

C4

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 10 | 1 | 1 | 18 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 10 | 1 | 1 | 18 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 6 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 6 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 12 | |
| C(m) (vph) | 1611 | 1621 | | 1077 | | | 1003 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.2 | 7.2 | | 8.3 | | | 8.6 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.3 | | | 8.6 | |
| Approach LOS | | | | A | | | A | |

CS

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 15 | 4 | 1 | 13 | 5 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 15 | 4 | 1 | 13 | 5 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 2 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 2 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 7 | |
| C(m) (vph) | 1612 | 1611 | | 981 | | | 1035 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

C6

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 10 | 1 | 1 | 18 | 2 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 10 | 1 | 1 | 18 | 2 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 7 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 7 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 13 | |
| C(m) (vph) | 1609 | 1621 | | 1077 | | | 997 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.3 | 7.2 | | 8.3 | | | 8.7 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.3 | | | 8.7 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 15 | 4 | 1 | 13 | 7 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 15 | 4 | 1 | 13 | 7 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | / | | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 3 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 3 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 8 | |
| C(m) (vph) | 1609 | 1611 | | 980 | | | 1025 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 101 | 8 | 27 | 183 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 101 | 8 | 27 | 183 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 20 | 0 | 39 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 20 | 0 | 39 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 27 | | 59 | | | 4 | |
| C(m) (vph) | 1403 | 1494 | | 792 | | | 555 | |
| v/c | 0.00 | 0.02 | | 0.07 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.24 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 9.9 | | | 11.5 | |
| LOS | A | A | | A | | | B | |
| Approach Delay | | | | 9.9 | | | 11.5 | |
| Approach LOS | | | | A | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 108 | 35 | 33 | 112 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 108 | 35 | 33 | 112 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | / | | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 12 | 0 | 11 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 12 | 0 | 11 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 33 | | 23 | | | 4 | |
| C(m) (vph) | 1487 | 1452 | | 748 | | | 751 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.10 | | | 0.02 | |
| Control Delay | 7.4 | 7.5 | | 10.0- | | | 9.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 10.0- | | | 9.8 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 102 | 8 | 27 | 185 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 102 | 8 | 27 | 185 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 20 | 0 | 39 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 20 | 0 | 39 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 27 | | 59 | | | 4 | |
| C(m) (vph) | 1401 | 1493 | | 790 | | | 551 | |
| v/c | 0.00 | 0.02 | | 0.07 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.24 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 9.9 | | | 11.6 | |
| LOS | A | A | | A | | | B | |
| Approach Delay | | | | 9.9 | | | 11.6 | |
| Approach LOS | | | | A | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 111 | 35 | 33 | 113 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 111 | 35 | 33 | 113 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 12 | 0 | 11 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 12 | 0 | 11 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 33 | | 23 | | | 4 | |
| C(m) (vph) | 1485 | 1448 | | 744 | | | 749 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.10 | | | 0.02 | |
| Control Delay | 7.4 | 7.5 | | 10.0- | | | 9.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 10.0- | | | 9.8 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 101 | 3 | 0 | 188 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 101 | 3 | 0 | 188 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 0 | | 8 | | | | |
| C(m) (vph) | | 1500 | | 783 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.4 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 142 | 3 | 2 | 122 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 142 | 3 | 2 | 122 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 2 | | 8 | | | | |
| C(m) (vph) | | 1450 | | 783 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.5 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 101 | 4 | 1 | 188 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 101 | 4 | 1 | 188 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 7 | | 5 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 7 | | 5 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 1 | | 12 | | | | |
| C(m) (vph) | | 1499 | | 790 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.00 | | 0.05 | | | | |
| Control Delay | | 7.4 | | 9.6 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.6 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 142 | 6 | 4 | 122 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 142 | 6 | 4 | 122 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 6 | | 4 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 6 | | 4 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 4 | | 10 | | | | |
| C(m) (vph) | | 1446 | | 783 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.01 | | 0.04 | | | | |
| Control Delay | | 7.5 | | 9.7 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.7 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | AM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Cumulative |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

| | | | | |
|---|---|---|---|---|
| Two-way hourly volume, V | 798 | | | veh/h |
| Directional split | 56 | / | 44 | % |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.2 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.990 | |
| Two-way flow rate,(note-1) vp | 916 | pc/h |
| Highest directional split proportion (note-2) | 513 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 2.8 | mi/h |
| Average travel speed, ATS | 42.6 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.995 | |
| Two-way flow rate,(note-1) vp | 911 | pc/h |
| Highest directional split proportion (note-2) | 510 | |
| Base percent time-spent-following, BPTSF | 55.1 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 13.5 | |
| Percent time-spent-following, PTSF | 68.6 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.29 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 227 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 798 | veh-mi |
| Peak 15-min total travel time, TT15 | 5.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Two-Lane Highways Release 4.1d

Hartshorn
Darnell

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | bh |
| Agency/Co. | Darnell |
| Date Performed | 7/5/2004 |
| Analysis Time Period | PM |
| Highway | Via Rancho Parkway |
| From/To | Felicita/I-15 |
| Jurisdiction | County |
| Analysis Year | Cumulative |
| Description 040601 - Homeland | |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class Class 1 | | | | | |
| Shoulder width | 4.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 14.0 | ft | % Trucks and buses | 5 | % |
| Segment length | 1.0 | mi | % Recreational vehicles | 5 | % |
| Terrain type | Level | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 5 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 1152 | | veh/h |
| Directional split | 71 | / 29 | % |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.995 | |
| Two-way flow rate,(note-1) vp | 1316 | pc/h |
| Highest directional split proportion (note-2) | 934 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 55.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 1.3 | mi/h |
| Adj. for access points, fA | 1.3 | mi/h |
| Free-flow speed, FFS | 52.5 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 40.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.0 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 1.000 | |
| Two-way flow rate,(note-1) vp | 1309 | pc/h |
| Highest directional split proportion (note-2) | 929 | |
| Base percent time-spent-following, BPTSF | 68.4 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 9.4 | |
| Percent time-spent-following, PTSF | 77.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | D | |
| Volume to capacity ratio, v/c | 0.41 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 327 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1152 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Others

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 33 | 475 | 107 | 339 | 1147 | 22 | 122 | 50 | 364 | 3 | 64 | 8 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.10 | 0.11 | 38.6 | D | | |
| T | 836 | 3610 | 0.63 | 0.23 | 34.4 | C | 34.0 | C |
| R | 374 | 1615 | 0.32 | 0.23 | 30.8 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.41 | 0.26 | 29.2 | C | | |
| TR | 1742 | 5173 | 0.75 | 0.34 | 29.7 | C | 29.6 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.34 | 0.22 | 31.7 | C | | |
| T | 950 | 3610 | 0.06 | 0.26 | 26.2 | C | 16.4 | B |
| R | 1645 | 2842 | 0.25 | 0.58 | 9.9 | A | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.02 | 0.08 | 40.0 | D | | |
| T | 646 | 3610 | 0.11 | 0.18 | 32.7 | C | 31.7 | C |
| R | 544 | 1615 | 0.02 | 0.34 | 21.0 | C | | |

Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Others

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 247 | 764 | 194 | 436 | 835 | 41 | 398 | 246 | 1193 | 48 | 265 | 179 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | A | | | WB | Right | | | | |
| Green | 12.0 | 3.0 | 25.0 | | | | 12.0 | 10.0 | 15.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 433 | 3502 | 0.63 | 0.12 | 43.4 | D | | |
| T | 930 | 3610 | 0.91 | 0.26 | 48.1 | D | 44.5 | D |
| R | 416 | 1615 | 0.52 | 0.26 | 32.0 | C | | |
| Westbound | | | | | | | | |
| L | 722 | 3502 | 0.67 | 0.21 | 37.9 | D | | |
| TR | 1487 | 5150 | 0.66 | 0.29 | 31.3 | C | 33.5 | C |
| Northbound | | | | | | | | |
| L | 502 | 1805 | 0.88 | 0.28 | 49.9 | D | | |
| T | 930 | 3610 | 0.29 | 0.26 | 29.1 | C | 34.0 | C |
| R | 1465 | 2842 | 0.91 | 0.52 | 29.7 | C | | |
| Southbound | | | | | | | | |
| L | 223 | 1805 | 0.24 | 0.12 | 38.9 | D | | |
| T | 558 | 3610 | 0.53 | 0.15 | 38.7 | D | 31.7 | C |
| R | 666 | 1615 | 0.30 | 0.41 | 19.4 | B | | |

Intersection Delay = 36.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Cumulative

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 33 | 475 | 107 | 339 | 1147 | 22 | 123 | 50 | 364 | 3 | 64 | 8 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.10 | 0.11 | 38.6 | D | | |
| T | 836 | 3610 | 0.63 | 0.23 | 34.4 | C | 34.0 | C |
| R | 374 | 1615 | 0.32 | 0.23 | 30.8 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.41 | 0.26 | 29.2 | C | | |
| TR | 1742 | 5173 | 0.75 | 0.34 | 29.7 | C | 29.6 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.34 | 0.22 | 31.7 | C | | |
| T | 950 | 3610 | 0.06 | 0.26 | 26.2 | C | 16.4 | B |
| R | 1645 | 2842 | 0.25 | 0.58 | 9.9 | A | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.02 | 0.08 | 40.0 | D | | |
| T | 646 | 3610 | 0.11 | 0.18 | 32.7 | C | 31.7 | C |
| R | 544 | 1615 | 0.02 | 0.34 | 21.0 | C | | |

Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : Cumulative

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 247 | 764 | 195 | 436 | 835 | 41 | 400 | 246 | 1193 | 48 | 265 | 179 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | A | | |
| | Thru | | | A | | | Thru | | A | A | |
| | Right | | | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | | | |
| | Thru | | A | A | | | Thru | | | A | |
| | Right | | A | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | | | | |
| SB | Right | A | A | | | WB | Right | | | | |
| Green | | 12.0 | 3.0 | 25.0 | | | | 12.0 | 10.0 | 15.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 433 | 3502 | 0.63 | 0.12 | 43.4 | D | | |
| T | 930 | 3610 | 0.91 | 0.26 | 48.1 | D | 44.5 | D |
| R | 416 | 1615 | 0.52 | 0.26 | 32.1 | C | | |
| Westbound | | | | | | | | |
| L | 722 | 3502 | 0.67 | 0.21 | 37.9 | D | | |
| TR | 1487 | 5150 | 0.66 | 0.29 | 31.3 | C | 33.5 | C |
| Northbound | | | | | | | | |
| L | 502 | 1805 | 0.88 | 0.28 | 50.5 | D | | |
| T | 930 | 3610 | 0.29 | 0.26 | 29.1 | C | 34.1 | C |
| R | 1465 | 2842 | 0.91 | 0.52 | 29.7 | C | | |
| Southbound | | | | | | | | |
| L | 223 | 1805 | 0.24 | 0.12 | 38.9 | D | | |
| T | 558 | 3610 | 0.53 | 0.15 | 38.7 | D | 31.7 | C |
| R | 666 | 1615 | 0.30 | 0.41 | 19.4 | B | | |

Intersection Delay = 36.3 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Others

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 106 | 381 | 628 | 879 | 385 | 60 | 11 | 60 | 111 | 53 | 432 | 55 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | | A | | | Thru | | A | | |
| | Right | | | A | | | Right | | A | | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | | | |
| | Thru | | A | A | | | Thru | | A | | |
| | Right | | A | A | | | Right | | A | | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | A | | | |
| SB | Right | A | A | | | WB | Right | A | | | |
| Green | | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.59 | 0.11 | 42.5 | D | | |
| T | 923 | 3610 | 0.46 | 0.26 | 28.6 | C | 51.3 | D |
| R | 682 | 1615 | 1.02 | 0.42 | 66.5 | E | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.00 | 0.28 | 62.4 | E | | |
| T | 1324 | 3610 | 0.32 | 0.37 | 20.6 | C | 47.8 | D |
| R | 861 | 1615 | 0.08 | 0.53 | 10.3 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.06 | 0.11 | 35.9 | D | | |
| T | 682 | 3610 | 0.10 | 0.19 | 30.2 | C | 19.0 | B |
| R | 843 | 1615 | 0.15 | 0.52 | 11.2 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.29 | 0.11 | 37.6 | D | | |
| T | 682 | 3610 | 0.70 | 0.19 | 37.4 | D | 34.7 | C |
| R | 843 | 1615 | 0.07 | 0.52 | 10.7 | B | | |

Intersection Delay = 45.2 (sec/veh) Intersection LOS = D

C25

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Existing+Others

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 45 | 239 | 119 | 793 | 564 | 33 | 65 | 220 | 788 | 218 | 181 | 69 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | | A | | | Thru | | | A | |
| | Right | | | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | A | | |
| | Thru | | A | A | | | Thru | | A | A | |
| | Right | | A | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | A | | | |
| SB | Right | A | A | | | WB | Right | A | | | |
| Green | | 8.0 | 10.0 | 14.0 | | | | 10.0 | 10.0 | 18.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 160 | 1805 | 0.31 | 0.09 | 39.5 | D | | |
| T | 562 | 3610 | 0.47 | 0.16 | 35.3 | D | 32.1 | C |
| R | 520 | 1615 | 0.25 | 0.32 | 22.8 | C | | |
| Westbound | | | | | | | | |
| L | 895 | 3502 | 0.98 | 0.26 | 59.5 | E | | |
| T | 963 | 3610 | 0.65 | 0.27 | 30.9 | C | 46.8 | D |
| R | 700 | 1615 | 0.05 | 0.43 | 14.8 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.36 | 0.11 | 38.1 | D | | |
| T | 722 | 3610 | 0.34 | 0.20 | 31.2 | C | 60.9 | E |
| R | 825 | 1615 | 1.06 | 0.51 | 71.1 | E | | |
| Southbound | | | | | | | | |
| L | 501 | 1805 | 0.48 | 0.28 | 27.8 | C | | |
| T | 1123 | 3610 | 0.18 | 0.31 | 22.7 | C | 22.7 | C |
| R | 1005 | 1615 | 0.08 | 0.62 | 6.8 | A | | |

Intersection Delay = 46.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Cumulative

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 106 | 382 | 629 | 879 | 386 | 60 | 11 | 60 | 111 | 53 | 432 | 55 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | A | | |
| Right | | | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | A | | |
| Right | | A | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.59 | 0.11 | 42.5 | D | | |
| T | 923 | 3610 | 0.46 | 0.26 | 28.6 | C | 51.5 | D |
| R | 682 | 1615 | 1.02 | 0.42 | 66.9 | E | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.00 | 0.28 | 62.4 | E | | |
| T | 1324 | 3610 | 0.32 | 0.37 | 20.6 | C | 47.8 | D |
| R | 861 | 1615 | 0.08 | 0.53 | 10.3 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.06 | 0.11 | 35.9 | D | | |
| T | 682 | 3610 | 0.10 | 0.19 | 30.2 | C | 19.0 | B |
| R | 843 | 1615 | 0.15 | 0.52 | 11.2 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.29 | 0.11 | 37.6 | D | | |
| T | 682 | 3610 | 0.70 | 0.19 | 37.4 | D | 34.7 | C |
| R | 843 | 1615 | 0.07 | 0.52 | 10.7 | B | | |

Intersection Delay = 45.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : Cumulative

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 45 | 239 | 120 | 793 | 566 | 33 | 66 | 220 | 788 | 218 | 181 | 69 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | | A | | | Thru | | | A | |
| | Right | | | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | A | | |
| | Thru | | A | A | | | Thru | | A | A | |
| | Right | | A | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | A | | | |
| SB | Right | A | A | | | WB | Right | A | | | |
| Green | | 8.0 | 10.0 | 14.0 | | | | 10.0 | 10.0 | 18.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 160 | 1805 | 0.31 | 0.09 | 39.5 | D | | |
| T | 562 | 3610 | 0.47 | 0.16 | 35.3 | D | 32.0 | C |
| R | 520 | 1615 | 0.26 | 0.32 | 22.8 | C | | |
| Westbound | | | | | | | | |
| L | 895 | 3502 | 0.98 | 0.26 | 59.5 | E | | |
| T | 963 | 3610 | 0.65 | 0.27 | 30.9 | C | 46.8 | D |
| R | 700 | 1615 | 0.05 | 0.43 | 14.8 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.36 | 0.11 | 38.2 | D | | |
| T | 722 | 3610 | 0.34 | 0.20 | 31.2 | C | 60.9 | E |
| R | 825 | 1615 | 1.06 | 0.51 | 71.1 | E | | |
| Southbound | | | | | | | | |
| L | 501 | 1805 | 0.48 | 0.28 | 27.8 | C | | |
| T | 1123 | 3610 | 0.18 | 0.31 | 22.7 | C | 22.7 | C |
| R | 1005 | 1615 | 0.08 | 0.62 | 6.8 | A | | |

Intersection Delay = 46.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Others

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 42 | 351 | 3 | 3 | 387 | 81 | 0 | 11 | 2 | 79 | 23 | 52 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.26 | 0.10 | 42.3 | D | | |
| TR | 569 | 1898 | 0.69 | 0.30 | 34.5 | C | 35.3 | D |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1851 | 0.94 | 0.30 | 57.8 | E | 57.7 | E |
| Northbound | | | | | | | | |
| LTR | 149 | 1863 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 585 | 1829 | 0.19 | 0.32 | 24.8 | C | 24.6 | C |
| R | 517 | 1615 | 0.11 | 0.32 | 24.1 | C | | |

Intersection Delay = 44.0 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Existing+Others

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 43 | 692 | 1 | 2 | 326 | 109 | 1 | 8 | 0 | 290 | 11 | 35 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.33 | 0.08 | 44.8 | D | | |
| TR | 798 | 1900 | 0.96 | 0.42 | 51.8 | D | 51.4 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 768 | 1829 | 0.63 | 0.42 | 24.5 | C | 24.6 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.84 | 0.22 | 51.7 | D | 49.6 | D |
| R | 355 | 1615 | 0.11 | 0.22 | 31.3 | C | | |

Intersection Delay = 43.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Cumulative

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 42 | 351 | 3 | 3 | 387 | 82 | 0 | 11 | 2 | 81 | 23 | 52 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 32.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 181 | 1805 | 0.26 | 0.10 | 42.3 | D | | |
| TR | 569 | 1898 | 0.69 | 0.30 | 34.5 | C | 35.3 | D |
| Westbound | | | | | | | | |
| L | 181 | 1805 | 0.02 | 0.10 | 40.6 | D | | |
| TR | 555 | 1850 | 0.94 | 0.30 | 58.1 | E | 58.0 | E |
| Northbound | | | | | | | | |
| LTR | 149 | 1863 | 0.09 | 0.08 | 42.9 | D | 42.9 | D |
| Southbound | | | | | | | | |
| LT | 585 | 1829 | 0.20 | 0.32 | 24.9 | C | 24.6 | C |
| R | 517 | 1615 | 0.11 | 0.32 | 24.1 | C | | |

Intersection Delay = 44.1 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : Cumulative

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | | LTR | | | LT | R |
| Volume | 43 | 692 | 1 | 2 | 326 | 112 | 1 | 8 | 0 | 291 | 11 | 35 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB Left | | A | | |
| Thru | | A | | | Thru | | A | | |
| Right | | A | | | Right | | A | | |
| Peds | | | | | Peds | | | | |
| WB Left | A | | | | SB Left | A | | | |
| Thru | | A | | | Thru | A | | | |
| Right | | A | | | Right | A | | | |
| Peds | | | | | Peds | | | | |
| NB Right | | | | | EB Right | | | | |
| SB Right | | | | | WB Right | | | | |
| Green | 8.0 | 42.0 | | | | 22.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 100.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 144 | 1805 | 0.33 | 0.08 | 44.8 | D | | |
| TR | 798 | 1900 | 0.96 | 0.42 | 51.8 | D | 51.4 | D |
| Westbound | | | | | | | | |
| L | 144 | 1805 | 0.01 | 0.08 | 42.4 | D | | |
| TR | 767 | 1827 | 0.63 | 0.42 | 24.6 | C | 24.7 | C |
| Northbound | | | | | | | | |
| LTR | 151 | 1891 | 0.07 | 0.08 | 42.7 | D | 42.7 | D |
| Southbound | | | | | | | | |
| LT | 399 | 1813 | 0.84 | 0.22 | 52.0 | D | 49.9 | D |
| R | 355 | 1615 | 0.11 | 0.22 | 31.3 | C | | |

Intersection Delay = 43.3 (sec/veh) Intersection LOS = D

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 109 | 8 | 29 | 196 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 109 | 8 | 29 | 196 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 21 | 0 | 41 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 21 | 0 | 41 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 29 | | 62 | | | 4 | |
| C(m) (vph) | 1388 | 1484 | | 774 | | | 531 | |
| v/c | 0.00 | 0.02 | | 0.08 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.26 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 10.1 | | | 11.8 | |
| LOS | A | A | | B | | | B | |
| Approach Delay | | | | 10.1 | | | 11.8 | |
| Approach LOS | | | | B | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 117 | 37 | 35 | 121 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 117 | 37 | 35 | 121 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 13 | 0 | 12 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 13 | 0 | 12 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 35 | | 25 | | | 4 | |
| C(m) (vph) | 1475 | 1439 | | 728 | | | 732 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.11 | | | 0.02 | |
| Control Delay | 7.4 | 7.6 | | 10.1 | | | 9.9 | |
| LOS | A | A | | B | | | A | |
| Approach Delay | | | | 10.1 | | | 9.9 | |
| Approach LOS | | | | B | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 110 | 8 | 29 | 198 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 110 | 8 | 29 | 198 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 21 | 0 | 41 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 21 | 0 | 41 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 29 | | 62 | | | 4 | |
| C(m) (vph) | 1385 | 1483 | | 772 | | | 529 | |
| v/c | 0.00 | 0.02 | | 0.08 | | | 0.01 | |
| 95% queue length | 0.01 | 0.06 | | 0.26 | | | 0.02 | |
| Control Delay | 7.6 | 7.5 | | 10.1 | | | 11.9 | |
| LOS | A | A | | B | | | B | |
| Approach Delay | | | | 10.1 | | | 11.9 | |
| Approach LOS | | | | B | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 120 | 37 | 35 | 122 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 120 | 37 | 35 | 122 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 13 | 0 | 12 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 13 | 0 | 12 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 1 | 35 | | 25 | | | 4 | |
| C(m) (vph) | 1474 | 1435 | | 726 | | | 728 | |
| v/c | 0.00 | 0.02 | | 0.03 | | | 0.01 | |
| 95% queue length | 0.00 | 0.07 | | 0.11 | | | 0.02 | |
| Control Delay | 7.4 | 7.6 | | 10.1 | | | 10.0- | |
| LOS | A | A | | B | | | A | |
| Approach Delay | | | | 10.1 | | | 10.0- | |
| Approach LOS | | | | B | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 109 | 3 | 0 | 201 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 109 | 3 | 0 | 201 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 0 | | 8 | | | | |
| C(m) (vph) | | 1490 | | 766 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.4 | | 9.7 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.7 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 153 | 3 | 2 | 131 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 153 | 3 | 2 | 131 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 2 | | 8 | | | | |
| C(m) (vph) | | 1436 | | 767 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.00 | | 0.03 | | | | |
| Control Delay | | 7.5 | | 9.7 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.7 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 109 | 4 | 1 | 201 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 109 | 4 | 1 | 201 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 7 | | 5 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 7 | | 5 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | | 0 | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 1 | | 12 | | | | |
| C(m) (vph) | | 1489 | | 773 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.00 | | 0.05 | | | | |
| Control Delay | | 7.4 | | 9.7 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.7 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 153 | 6 | 4 | 131 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 153 | 6 | 4 | 131 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | TR | | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 6 | | 4 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 6 | | 4 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 4 | | 10 | | | | |
| C(m) (vph) | | 1433 | | 765 | | | | |
| v/c | | 0.00 | | 0.01 | | | | |
| 95% queue length | | 0.01 | | 0.04 | | | | |
| Control Delay | | 7.5 | | 9.8 | | | | |
| LOS | | A | | A | | | | |
| Approach Delay | | | | 9.8 | | | | |
| Approach LOS | | | | A | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 11 | 11 | 1 | 1 | 19 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 11 | 11 | 1 | 1 | 19 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 6 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 6 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 11 | 1 | | 1 | | | 12 | |
| C(m) (vph) | 1609 | 1620 | | 1074 | | | 998 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.3 | 7.2 | | 8.4 | | | 8.7 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.4 | | | 8.7 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Existing+Others
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 16 | 4 | 1 | 14 | 5 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 16 | 4 | 1 | 14 | 5 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 2 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 2 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 7 | |
| C(m) (vph) | 1611 | 1609 | | 978 | | | 1035 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 11 | 11 | 1 | 1 | 19 | 2 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 11 | 11 | 1 | 1 | 19 | 2 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 7 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 7 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 11 | 1 | | 1 | | | 13 | |
| C(m) (vph) | 1608 | 1620 | | 1074 | | | 993 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.3 | 7.2 | | 8.4 | | | 8.7 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.4 | | | 8.7 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: Cumulative
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 16 | 4 | 1 | 14 | 7 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 16 | 4 | 1 | 14 | 7 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 3 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 3 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 8 | |
| C(m) (vph) | 1608 | 1609 | | 977 | | | 1023 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.2 | 7.2 | | 8.7 | | | 8.5 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.7 | | | 8.5 | |
| Approach LOS | | | | A | | | A | |

# APPENDIX D
# Year 2030 Worksheets
# (Without and With Project)

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030- No Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 44 | 361 | 3 | 3 | 401 | 299 | 0 | 10 | 2 | 131 | 22 | 55 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | A | | | | Thru | | | A | |
| Right | | A | | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | A | | |
| Thru | | A | | | | Thru | | A | A | |
| Right | | A | | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 87.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 207 | 1805 | 0.24 | 0.11 | 35.6 | D | | |
| TR | 1243 | 3606 | 0.33 | 0.34 | 21.2 | C | 22.7 | C |
| Westbound | | | | | | | | |
| L | 207 | 1805 | 0.01 | 0.11 | 34.2 | C | | |
| TR | 1165 | 3379 | 0.67 | 0.34 | 25.7 | C | 25.8 | C |
| Northbound | | | | | | | | |
| L | 104 | 1805 | 0.00 | 0.06 | 38.6 | D | | |
| TR | 213 | 1856 | 0.06 | 0.11 | 34.4 | C | 34.4 | C |
| Southbound | | | | | | | | |
| L | 886 | 3502 | 0.16 | 0.25 | 25.4 | C | | |
| T | 480 | 1900 | 0.05 | 0.25 | 24.6 | C | 25.3 | C |
| R | 408 | 1615 | 0.15 | 0.25 | 25.4 | C | | |

Intersection Delay = 24.9 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030 No Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 45 | 720 | 1 | 2 | 333 | 401 | 1 | 8 | 0 | 500 | 10 | 36 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | A | | | | Thru | | | A | |
| Right | | A | | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | A | | |
| Thru | | A | | | | Thru | | A | A | |
| Right | | A | | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 149 | 1805 | 0.34 | 0.08 | 43.3 | D | | |
| TR | 1563 | 3609 | 0.51 | 0.43 | 20.3 | C | 21.7 | C |
| Westbound | | | | | | | | |
| L | 149 | 1805 | 0.01 | 0.08 | 40.9 | D | | |
| TR | 1435 | 3314 | 0.57 | 0.43 | 21.2 | C | 21.3 | C |
| Northbound | | | | | | | | |
| L | 93 | 1805 | 0.01 | 0.05 | 43.7 | D | | |
| TR | 196 | 1900 | 0.05 | 0.10 | 39.3 | D | 39.7 | D |
| Southbound | | | | | | | | |
| L | 794 | 3502 | 0.70 | 0.23 | 37.2 | D | | |
| T | 431 | 1900 | 0.03 | 0.23 | 29.2 | C | 36.6 | D |
| R | 366 | 1615 | 0.11 | 0.23 | 29.9 | C | | |

Intersection Delay = 25.6 (sec/veh) Intersection LOS = C

D2

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030- + Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 44 | 361 | 3 | 3 | 401 | 300 | 0 | 10 | 2 | 133 | 22 | 55 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | A | | | | Thru | | | A | |
| Right | | A | | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | A | | |
| Thru | | A | | | | Thru | | A | A | |
| Right | | A | | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 87.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 207 | 1805 | 0.24 | 0.11 | 35.6 | D | | |
| TR | 1243 | 3606 | 0.33 | 0.34 | 21.2 | C | 22.7 | C |
| Westbound | | | | | | | | |
| L | 207 | 1805 | 0.01 | 0.11 | 34.2 | C | | |
| TR | 1165 | 3379 | 0.67 | 0.34 | 25.8 | C | 25.8 | C |
| Northbound | | | | | | | | |
| L | 104 | 1805 | 0.00 | 0.06 | 38.6 | D | | |
| TR | 213 | 1856 | 0.06 | 0.11 | 34.4 | C | 34.4 | C |
| Southbound | | | | | | | | |
| L | 886 | 3502 | 0.17 | 0.25 | 25.4 | C | | |
| T | 480 | 1900 | 0.05 | 0.25 | 24.6 | C | 25.3 | C |
| R | 408 | 1615 | 0.15 | 0.25 | 25.4 | C | | |

Intersection Delay = 24.9 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 7/5/2004
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030 + Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 45 | 720 | 1 | 2 | 333 | 404 | 1 | 8 | 0 | 501 | 10 | 36 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | A | | | | Thru | | | A | |
| Right | | A | | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | A | | |
| Thru | | A | | | | Thru | | A | A | |
| Right | | A | | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 149 | 1805 | 0.34 | 0.08 | 43.3 | D | | |
| TR | 1563 | 3609 | 0.51 | 0.43 | 20.3 | C | 21.7 | C |
| Westbound | | | | | | | | |
| L | 149 | 1805 | 0.01 | 0.08 | 40.9 | D | | |
| TR | 1434 | 3313 | 0.57 | 0.43 | 21.3 | C | 21.3 | C |
| Northbound | | | | | | | | |
| L | 93 | 1805 | 0.01 | 0.05 | 43.7 | D | | |
| TR | 196 | 1900 | 0.05 | 0.10 | 39.3 | D | 39.7 | D |
| Southbound | | | | | | | | |
| L | 794 | 3502 | 0.70 | 0.23 | 37.3 | D | | |
| T | 431 | 1900 | 0.03 | 0.23 | 29.2 | C | 36.6 | D |
| R | 366 | 1615 | 0.11 | 0.23 | 29.9 | C | | |

Intersection Delay = 25.6 (sec/veh) Intersection LOS = C

D4

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030- No Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 48 | 1 | 1 | 86 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 48 | 1 | 1 | 86 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 6 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 6 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 12 | |
| C(m) (vph) | 1522 | 1571 | | 1027 | | | 886 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.4 | 7.3 | | 8.5 | | | 9.1 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.5 | | | 9.1 | |
| Approach LOS | | | | A | | | A | |

DS

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 71 | 4 | 1 | 62 | 5 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 71 | 4 | 1 | 62 | 5 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 2 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 2 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 7 | |
| C(m) (vph) | 1547 | 1537 | | 854 | | | 946 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.3 | 7.3 | | 9.2 | | | 8.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 9.2 | | | 8.8 | |
| Approach LOS | | | | A | | | A | |

D6

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030- Plus Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 10 | 48 | 1 | 1 | 86 | 2 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 10 | 48 | 1 | 1 | 86 | 2 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 7 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 7 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 10 | 1 | | 1 | | | 13 | |
| C(m) (vph) | 1520 | 1571 | | 1027 | | | 878 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.05 | |
| Control Delay | 7.4 | 7.3 | | 8.5 | | | 9.2 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.5 | | | 9.2 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - Plus Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 71 | 4 | 1 | 62 | 7 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 71 | 4 | 1 | 62 | 7 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 3 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 3 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 8 | |
| C(m) (vph) | 1545 | 1537 | | 854 | | | 925 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.03 | |
| Control Delay | 7.3 | 7.3 | | 9.2 | | | 8.9 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 9.2 | | | 8.9 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 407 | 26 | 86 | 734 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 407 | 26 | 86 | 734 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT | | TR | LT | | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 64 | 0 | 125 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 64 | 0 | 125 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 5 | 86 | | 189 | | | 4 | |
| C(m) (vph) | 879 | 1137 | | 393 | | | 130 | |
| v/c | 0.01 | 0.08 | | 0.48 | | | 0.03 | |
| 95% queue length | 0.02 | 0.25 | | 2.53 | | | 0.09 | |
| Control Delay | 9.1 | 8.4 | | 22.4 | | | 33.6 | |
| LOS | A | A | | C | | | D | |
| Approach Delay | | | | 22.4 | | | 33.6 | |
| Approach LOS | | | | C | | | D | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 437 | 112 | 106 | 451 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 437 | 112 | 106 | 451 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT | | TR | LT | | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 38 | 0 | 35 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 38 | 0 | 35 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 1 | 106 | | 73 | | | 4 | |
| C(m) (vph) | 1117 | 1031 | | 314 | | | 335 | |
| v/c | 0.00 | 0.10 | | 0.23 | | | 0.01 | |
| 95% queue length | 0.00 | 0.34 | | 0.88 | | | 0.04 | |
| Control Delay | 8.2 | 8.9 | | 19.9 | | | 15.9 | |
| LOS | A | A | | C | | | C | |
| Approach Delay | | | | 19.9 | | | 15.9 | |
| Approach LOS | | | | C | | | C | |

D10

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - Plus Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 408 | 26 | 86 | 736 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 408 | 26 | 86 | 736 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | / | | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | | LT | TR | | LT | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 64 | 0 | 125 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 64 | 0 | 125 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 5 | 86 | | 189 | | | 4 | |
| C(m) (vph) | 878 | 1136 | | 392 | | | 129 | |
| v/c | 0.01 | 0.08 | | 0.48 | | | 0.03 | |
| 95% queue length | 0.02 | 0.25 | | 2.54 | | | 0.10 | |
| Control Delay | 9.1 | 8.4 | | 22.4 | | | 33.8 | |
| LOS | A | A | | C | | | D | |
| Approach Delay | | | | 22.4 | | | 33.8 | |
| Approach LOS | | | | C | | | D | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - Plus Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 440 | 112 | 106 | 452 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 440 | 112 | 106 | 452 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | / | | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT | | TR | LT | | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 38 | 0 | 35 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 38 | 0 | 35 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 1 | 106 | | 73 | | | 4 | |
| C(m) (vph) | 1116 | 1028 | | 313 | | | 332 | |
| v/c | 0.00 | 0.10 | | 0.23 | | | 0.01 | |
| 95% queue length | 0.00 | 0.34 | | 0.89 | | | 0.04 | |
| Control Delay | 8.2 | 8.9 | | 20.0 | | | 16.0 | |
| LOS | A | A | | C | | | C | |
| Approach Delay | | | | 20.0 | | | 16.0 | |
| Approach LOS | | | | C | | | C | |

D12

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 404 | 3 | 0 | 748 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 404 | 3 | 0 | 748 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 2 | 0 | 0 | 2 | |
| Configuration | | T | TR | LT | T | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 0 | | 8 | | | | |
| C(m) (vph) | | 1163 | | 430 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.00 | | 0.06 | | | | |
| Control Delay | | 8.1 | | 13.5 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 13.5 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 564 | 3 | 2 | 488 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 564 | 3 | 2 | 488 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 2 | 0 | 0 | 2 | |
| Configuration | | T | TR | LT | T | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 2 | | 8 | | | | |
| C(m) (vph) | | 1015 | | 403 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.01 | | 0.06 | | | | |
| Control Delay | | 8.6 | | 14.1 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.1 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - Plus Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 404 | 4 | 1 | 748 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 404 | 4 | 1 | 748 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 2 | 0 | 0 | 2 | |
| Configuration | | T | TR | LT | T | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 7 | | 5 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 7 | | 5 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 1 | | 12 | | | | |
| C(m) (vph) | | 1162 | | 443 | | | | |
| v/c | | 0.00 | | 0.03 | | | | |
| 95% queue length | | 0.00 | | 0.08 | | | | |
| Control Delay | | 8.1 | | 13.4 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 13.4 | | | | |
| Approach LOS | | | | B | | | | |

D15

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 7/5/2004
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 Plus Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 564 | 6 | 4 | 488 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 564 | 6 | 4 | 488 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 2 | 0 | 0 | 2 | |
| Configuration | | T | TR | LT | T | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 6 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 6 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 4 | | 9 | | | | |
| C(m) (vph) | | 1013 | | 390 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.01 | | 0.07 | | | | |
| Control Delay | | 8.6 | | 14.4 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.4 | | | | |
| Approach LOS | | | | B | | | | |

D16

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 33 | 618 | 139 | 441 | 1261 | 22 | 159 | 50 | 401 | 4 | 64 | 15 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.10 | 0.11 | 38.6 | D | | |
| T | 836 | 3610 | 0.82 | 0.23 | 41.3 | D | 39.5 | D |
| R | 374 | 1615 | 0.41 | 0.23 | 31.7 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.53 | 0.26 | 30.6 | C | | |
| TR | 1743 | 5174 | 0.82 | 0.34 | 32.0 | C | 31.6 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.44 | 0.22 | 32.7 | C | | |
| T | 950 | 3610 | 0.06 | 0.26 | 26.2 | C | 17.3 | B |
| R | 1645 | 2842 | 0.27 | 0.58 | 10.1 | B | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.03 | 0.08 | 40.0 | D | | |
| T | 646 | 3610 | 0.11 | 0.18 | 32.7 | C | 30.9 | C |
| R | 544 | 1615 | 0.03 | 0.34 | 21.1 | C | | |

Intersection Delay = 30.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030

N/S St: I-15 Northbound

## SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 247 | 993 | 252 | 566 | 919 | 41 | 518 | 246 | 1312 | 62 | 265 | 308 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

### Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | A | | | WB | Right | | | | |
| Green | 10.0 | 3.0 | 28.0 | | | | 10.0 | 14.0 | 10.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

### Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.74 | 0.11 | 49.1 | D | | |
| T | 1064 | 3610 | 1.04 | 0.29 | 71.0 | E | 60.6 | E |
| R | 476 | 1615 | 0.59 | 0.29 | 30.5 | C | | |
| Westbound | | | | | | | | |
| L | 664 | 3502 | 0.95 | 0.19 | 60.8 | E | | |
| TR | 1682 | 5153 | 0.63 | 0.33 | 28.0 | C | 40.2 | D |
| Northbound | | | | | | | | |
| L | 551 | 1805 | 1.05 | 0.31 | 83.7 | F | | |
| T | 912 | 3610 | 0.30 | 0.25 | 28.9 | C | 61.1 | E |
| R | 1406 | 2842 | 1.04 | 0.49 | 58.1 | E | | |
| Southbound | | | | | | | | |
| L | 190 | 1805 | 0.36 | 0.11 | 40.7 | D | | |
| T | 380 | 3610 | 0.77 | 0.11 | 51.0 | D | 38.6 | D |
| R | 561 | 1615 | 0.61 | 0.35 | 27.6 | C | | |

Intersection Delay = 52.9 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030 +Project

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 33 | 618 | 139 | 441 | 1261 | 22 | 160 | 50 | 401 | 4 | 64 | 15 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | A | | |
| Thru | | | A | | | Thru | | A | A | |
| Right | | | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | | A | |
| Right | | A | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | | | | |
| SB Right | A | | | | WB | Right | | | | |
| Green | 10.0 | 10.0 | 22.0 | | | | 8.0 | 8.0 | 17.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.10 | 0.11 | 38.6 | D | | |
| T | 836 | 3610 | 0.82 | 0.23 | 41.3 | D | 39.5 | D |
| R | 374 | 1615 | 0.41 | 0.23 | 31.7 | C | | |
| Westbound | | | | | | | | |
| L | 922 | 3502 | 0.53 | 0.26 | 30.6 | C | | |
| TR | 1743 | 5174 | 0.82 | 0.34 | 32.0 | C | 31.6 | C |
| Northbound | | | | | | | | |
| L | 399 | 1805 | 0.45 | 0.22 | 32.8 | C | | |
| T | 950 | 3610 | 0.06 | 0.26 | 26.2 | C | 17.3 | B |
| R | 1645 | 2842 | 0.27 | 0.58 | 10.1 | B | | |
| Southbound | | | | | | | | |
| L | 152 | 1805 | 0.03 | 0.08 | 40.0 | D | | |
| T | 646 | 3610 | 0.11 | 0.18 | 32.7 | C | 30.9 | C |
| R | 544 | 1615 | 0.03 | 0.34 | 21.1 | C | | |

Intersection Delay = 30.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland Estates
E/W St: Via Rancho Parkway

Inter.: I-15 Northbound/Via Rancho Pkw
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030+Project

N/S St: I-15 Northbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 2 | 2 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | TR | | L | T | R | L | T | R |
| Volume | 247 | 993 | 253 | 566 | 919 | 41 | 520 | 246 | 1312 | 62 | 265 | 308 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | A | | |
| | Thru | | | A | | | Thru | | A | A | |
| | Right | | | A | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | A | | | SB | Left | A | | | |
| | Thru | | A | A | | | Thru | | | A | |
| | Right | | A | A | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | A | A | | | EB | Right | | | | |
| SB | Right | A | A | | | WB | Right | | | | |
| Green | | 10.0 | 3.0 | 28.0 | | | | 10.0 | 14.0 | 10.0 | |
| Yellow | | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 95.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 369 | 3502 | 0.74 | 0.11 | 49.1 | D | | |
| T | 1064 | 3610 | 1.04 | 0.29 | 71.0 | E | 60.5 | E |
| R | 476 | 1615 | 0.59 | 0.29 | 30.5 | C | | |
| Westbound | | | | | | | | |
| L | 664 | 3502 | 0.95 | 0.19 | 60.8 | E | | |
| TR | 1682 | 5153 | 0.63 | 0.33 | 28.0 | C | 40.2 | D |
| Northbound | | | | | | | | |
| L | 551 | 1805 | 1.05 | 0.31 | 84.8 | F | | |
| T | 912 | 3610 | 0.30 | 0.25 | 28.9 | C | 61.4 | E |
| R | 1406 | 2842 | 1.04 | 0.49 | 58.1 | E | | |
| Southbound | | | | | | | | |
| L | 190 | 1805 | 0.36 | 0.11 | 40.7 | D | | |
| T | 380 | 3610 | 0.77 | 0.11 | 51.0 | D | 38.6 | D |
| R | 561 | 1615 | 0.61 | 0.35 | 27.6 | C | | |

Intersection Delay = 53.0 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 106 | 495 | 691 | 967 | 500 | 60 | 19 | 60 | 145 | 69 | 432 | 95 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 70 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | A | | |
| Right | | | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | A | | |
| Right | | A | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.59 | 0.11 | 42.5 | D | | |
| T | 923 | 3610 | 0.60 | 0.26 | 30.5 | C | 48.2 | D |
| R | 682 | 1615 | 1.01 | 0.42 | 63.4 | E | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.10 | 0.28 | 94.1 | F | | |
| T | 1324 | 3610 | 0.42 | 0.37 | 21.6 | C | 67.0 | E |
| R | 861 | 1615 | 0.08 | 0.53 | 10.3 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.10 | 0.11 | 36.2 | D | | |
| T | 682 | 3610 | 0.10 | 0.19 | 30.2 | C | 18.6 | B |
| R | 843 | 1615 | 0.19 | 0.52 | 11.5 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.38 | 0.11 | 38.4 | D | | |
| T | 682 | 3610 | 0.70 | 0.19 | 37.4 | D | 33.3 | C |
| R | 843 | 1615 | 0.13 | 0.52 | 11.1 | B | | |

Intersection Delay = 51.9 (sec/veh) Intersection LOS = D

D21

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 45 | 310 | 131 | 873 | 733 | 33 | 112 | 220 | 1025 | 284 | 181 | 119 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 150 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | | A | |
| Right | | | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | A | | |
| Thru | | A | A | | | Thru | | A | A | |
| Right | | A | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 13.0 | | | | 10.0 | 9.0 | 18.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.25 | 0.11 | 37.2 | D | | |
| T | 521 | 3610 | 0.66 | 0.14 | 39.5 | D | 35.0+ | D |
| R | 502 | 1615 | 0.29 | 0.31 | 23.8 | C | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.00 | 0.28 | 60.5 | E | | |
| T | 923 | 3610 | 0.88 | 0.26 | 42.2 | D | 51.4 | D |
| R | 682 | 1615 | 0.05 | 0.42 | 15.4 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.62 | 0.11 | 43.8 | D | | |
| T | 722 | 3610 | 0.34 | 0.20 | 31.2 | C | 77.6 | E |
| R | 861 | 1615 | 1.13 | 0.53 | 93.6 | F | | |
| Southbound | | | | | | | | |
| L | 481 | 1805 | 0.66 | 0.27 | 32.6 | C | | |
| T | 1083 | 3610 | 0.19 | 0.30 | 23.4 | C | 24.5 | C |
| R | 1023 | 1615 | 0.13 | 0.63 | 6.6 | A | | |

Intersection Delay = 53.4 (sec/veh) Intersection LOS = D

D22

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030+Project

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 106 | 496 | 692 | 967 | 501 | 60 | 19 | 60 | 145 | 69 | 432 | 95 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 70 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | A | | |
| Right | | | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | | | |
| Thru | | A | A | | | Thru | | A | | |
| Right | | A | A | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 23.0 | | | | 10.0 | 17.0 | | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 2.0 | | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.59 | 0.11 | 42.5 | D | | |
| T | 923 | 3610 | 0.60 | 0.26 | 30.5 | C | 48.4 | D |
| R | 682 | 1615 | 1.01 | 0.42 | 63.8 | E | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.10 | 0.28 | 94.1 | F | | |
| T | 1324 | 3610 | 0.42 | 0.37 | 21.6 | C | 67.0 | E |
| R | 861 | 1615 | 0.08 | 0.53 | 10.3 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.10 | 0.11 | 36.2 | D | | |
| T | 682 | 3610 | 0.10 | 0.19 | 30.2 | C | 18.6 | B |
| R | 843 | 1615 | 0.19 | 0.52 | 11.5 | B | | |
| Southbound | | | | | | | | |
| L | 201 | 1805 | 0.38 | 0.11 | 38.4 | D | | |
| T | 682 | 3610 | 0.70 | 0.19 | 37.4 | D | 33.3 | C |
| R | 843 | 1615 | 0.13 | 0.52 | 11.1 | B | | |

Intersection Delay = 52.0 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM
Project ID: 040601 - Homeland
E/W St: Via Rancho Pkwy

Inter.: I-15 South/Via Rancho Pkwy
Area Type: All other areas
Jurisd: County/Escondido
Year : 2030+Project

N/S St: I-15 Southbound

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 45 | 310 | 132 | 873 | 735 | 33 | 113 | 220 | 1025 | 284 | 181 | 119 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 150 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | | A | | | Thru | | | A | |
| Right | | | A | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | A | | | SB | Left | A | A | | |
| Thru | | A | A | | | Thru | | A | A | |
| Right | | A | A | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | A | A | | | EB | Right | A | | | |
| SB Right | A | A | | | WB | Right | A | | | |
| Green | 10.0 | 10.0 | 13.0 | | | | 10.0 | 9.0 | 18.0 | |
| Yellow | 3.0 | 0.0 | 3.0 | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 0.0 | 2.0 | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 90.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 201 | 1805 | 0.25 | 0.11 | 37.2 | D | | |
| T | 521 | 3610 | 0.66 | 0.14 | 39.5 | D | 35.0+ | D |
| R | 502 | 1615 | 0.29 | 0.31 | 23.8 | C | | |
| Westbound | | | | | | | | |
| L | 973 | 3502 | 1.00 | 0.28 | 60.5 | E | | |
| T | 923 | 3610 | 0.89 | 0.26 | 42.5 | D | 51.5 | D |
| R | 682 | 1615 | 0.05 | 0.42 | 15.4 | B | | |
| Northbound | | | | | | | | |
| L | 201 | 1805 | 0.63 | 0.11 | 44.3 | D | | |
| T | 722 | 3610 | 0.34 | 0.20 | 31.2 | C | 77.6 | E |
| R | 861 | 1615 | 1.13 | 0.53 | 93.6 | F | | |
| Southbound | | | | | | | | |
| L | 481 | 1805 | 0.66 | 0.27 | 32.6 | C | | |
| T | 1083 | 3610 | 0.19 | 0.30 | 23.4 | C | 24.5 | C |
| R | 1023 | 1615 | 0.13 | 0.63 | 6.6 | A | | |

Intersection Delay = 53.5 (sec/veh) Intersection LOS = D

D24

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 44 | 393 | 3 | 3 | 403 | 244 | 0 | 11 | 2 | 136 | 23 | 54 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 28.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 96.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 188 | 1805 | 0.26 | 0.10 | 40.3 | D | | |
| TR | 1127 | 3606 | 0.39 | 0.31 | 26.1 | C | 27.5 | C |
| Westbound | | | | | | | | |
| L | 188 | 1805 | 0.02 | 0.10 | 38.6 | D | | |
| TR | 1064 | 3406 | 0.68 | 0.31 | 30.5 | C | 30.5 | C |
| Northbound | | | | | | | | |
| L | 150 | 1805 | 0.00 | 0.08 | 40.3 | D | | |
| TR | 155 | 1859 | 0.09 | 0.08 | 40.9 | D | 40.9 | D |
| Southbound | | | | | | | | |
| L | 1021 | 3502 | 0.15 | 0.29 | 25.2 | C | | |
| T | 554 | 1900 | 0.05 | 0.29 | 24.5 | C | 25.1 | C |
| R | 471 | 1615 | 0.13 | 0.29 | 25.1 | C | | |

Intersection Delay = 28.7 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030 No Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 45 | 775 | 1 | 2 | 340 | 333 | 1 | 8 | 0 | 499 | 11 | 36 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | A | | | |
| Thru | | A | | | | Thru | | | A | |
| Right | | A | | | | Right | | | A | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | A | | |
| Thru | | A | | | | Thru | | A | A | |
| Right | | A | | | | Right | | A | A | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 8.0 | 42.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 149 | 1805 | 0.34 | 0.08 | 43.3 | D | | |
| TR | 1563 | 3609 | 0.55 | 0.43 | 20.9 | C | 22.1 | C |
| Westbound | | | | | | | | |
| L | 149 | 1805 | 0.01 | 0.08 | 40.9 | D | | |
| TR | 1447 | 3342 | 0.52 | 0.43 | 20.4 | C | 20.5 | C |
| Northbound | | | | | | | | |
| L | 93 | 1805 | 0.01 | 0.05 | 43.7 | D | | |
| TR | 196 | 1900 | 0.05 | 0.10 | 39.3 | D | 39.7 | D |
| Southbound | | | | | | | | |
| L | 794 | 3502 | 0.70 | 0.23 | 37.2 | D | | |
| T | 431 | 1900 | 0.03 | 0.23 | 29.2 | C | 36.5 | D |
| R | 366 | 1615 | 0.11 | 0.23 | 29.9 | C | | |

Intersection Delay = 25.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: AM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030+Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 44 | 393 | 3 | 3 | 403 | 245 | 0 | 11 | 2 | 138 | 23 | 54 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| EB Left | A | | | | NB | Left | | A | | |
| Thru | | A | | | | Thru | | A | | |
| Right | | A | | | | Right | | A | | |
| Peds | | | | | | Peds | | | | |
| WB Left | A | | | | SB | Left | A | | | |
| Thru | | A | | | | Thru | A | | | |
| Right | | A | | | | Right | A | | | |
| Peds | | | | | | Peds | | | | |
| NB Right | | | | | EB | Right | | | | |
| SB Right | | | | | WB | Right | | | | |
| Green | 10.0 | 30.0 | | | | | 28.0 | 8.0 | | |
| Yellow | 3.0 | 3.0 | | | | | 3.0 | 3.0 | | |
| All Red | 2.0 | 2.0 | | | | | 2.0 | 2.0 | | |

Cycle Length: 96.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 188 | 1805 | 0.26 | 0.10 | 40.3 | D | | |
| TR | 1127 | 3606 | 0.39 | 0.31 | 26.1 | C | 27.5 | C |
| Westbound | | | | | | | | |
| L | 188 | 1805 | 0.02 | 0.10 | 38.6 | D | | |
| TR | 1064 | 3405 | 0.68 | 0.31 | 30.5 | C | 30.5 | C |
| Northbound | | | | | | | | |
| L | 150 | 1805 | 0.00 | 0.08 | 40.3 | D | | |
| TR | 155 | 1859 | 0.09 | 0.08 | 40.9 | D | 40.9 | D |
| Southbound | | | | | | | | |
| L | 1021 | 3502 | 0.15 | 0.29 | 25.3 | C | | |
| T | 554 | 1900 | 0.05 | 0.29 | 24.5 | C | 25.1 | C |
| R | 471 | 1615 | 0.13 | 0.29 | 25.1 | C | | |

Intersection Delay = 28.7 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1d

Analyst: bh
Agency: Darnell
Date: 1/2005
Period: PM Peak
Project ID: 040601 - Homeland
E/W St: Via Rancho Parkway

Inter.: Via Rancho/Felicita
Area Type: All other areas
Jurisd: County
Year : 2030 Plus Project

N/S St: Felicita

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 45 | 775 | 1 | 2 | 340 | 336 | 1 | 8 | 0 | 500 | 11 | 36 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | | 1 | 2 | 3 | 4 | | | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EB | Left | A | | | | NB | Left | A | | | |
| | Thru | | A | | | | Thru | | | A | |
| | Right | | A | | | | Right | | | A | |
| | Peds | | | | | | Peds | | | | |
| WB | Left | A | | | | SB | Left | A | A | | |
| | Thru | | A | | | | Thru | | A | A | |
| | Right | | A | | | | Right | | A | A | |
| | Peds | | | | | | Peds | | | | |
| NB | Right | | | | | EB | Right | | | | |
| SB | Right | | | | | WB | Right | | | | |
| Green | | 8.0 | 42.0 | | | | | 5.0 | 12.0 | 10.0 | |
| Yellow | | 3.0 | 3.0 | | | | | 3.0 | 0.0 | 3.0 | |
| All Red | | 2.0 | 2.0 | | | | | 2.0 | 0.0 | 2.0 | |

Cycle Length: 97.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios v/c | Ratios g/C | Lane Group Delay | Lane Group LOS | Approach Delay | Approach LOS |
|---|---|---|---|---|---|---|---|---|
| Eastbound | | | | | | | | |
| L | 149 | 1805 | 0.34 | 0.08 | 43.3 | D | | |
| TR | 1563 | 3609 | 0.55 | 0.43 | 20.9 | C | 22.1 | C |
| Westbound | | | | | | | | |
| L | 149 | 1805 | 0.01 | 0.08 | 40.9 | D | | |
| TR | 1447 | 3341 | 0.52 | 0.43 | 20.4 | C | 20.5 | C |
| Northbound | | | | | | | | |
| L | 93 | 1805 | 0.01 | 0.05 | 43.7 | D | | |
| TR | 196 | 1900 | 0.05 | 0.10 | 39.3 | D | 39.7 | D |
| Southbound | | | | | | | | |
| L | 794 | 3502 | 0.70 | 0.23 | 37.2 | D | | |
| T | 431 | 1900 | 0.03 | 0.23 | 29.2 | C | 36.6 | D |
| R | 366 | 1615 | 0.11 | 0.23 | 29.9 | C | | |

Intersection Delay = 25.5 (sec/veh) Intersection LOS = C

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 328 | 19 | 63 | 591 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 328 | 19 | 63 | 591 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 47 | 0 | 91 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 47 | 0 | 91 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 63 | | 138 | | | 4 | |
| C(m) (vph) | 994 | 1223 | | 366 | | | 153 | |
| v/c | 0.01 | 0.05 | | 0.38 | | | 0.03 | |
| 95% queue length | 0.02 | 0.16 | | 1.71 | | | 0.08 | |
| Control Delay | 8.6 | 8.1 | | 20.7 | | | 29.2 | |
| LOS | A | A | | C | | | D | |
| Approach Delay | | | | 20.7 | | | 29.2 | |
| Approach LOS | | | | C | | | D | |

D29

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - No Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 357 | 82 | 77 | 364 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 357 | 82 | 77 | 364 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT | | TR | LT | | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 28 | 0 | 26 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 28 | 0 | 26 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 1 | 77 | | 54 | | | 4 | |
| C(m) (vph) | 1203 | 1132 | | 421 | | | 443 | |
| v/c | 0.00 | 0.07 | | 0.13 | | | 0.01 | |
| 95% queue length | 0.00 | 0.22 | | 0.44 | | | 0.03 | |
| Control Delay | 8.0 | 8.4 | | 14.8 | | | 13.2 | |
| LOS | A | A | | B | | | B | |
| Approach Delay | | | | 14.8 | | | 13.2 | |
| Approach LOS | | | | B | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030+Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 5 | 329 | 19 | 63 | 593 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 5 | 329 | 19 | 63 | 593 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 47 | 0 | 91 | 4 | 0 | 0 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 47 | 0 | 91 | 4 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 5 | 63 | | 138 | | | 4 | |
| C(m) (vph) | 992 | 1222 | | 365 | | | 152 | |
| v/c | 0.01 | 0.05 | | 0.38 | | | 0.03 | |
| 95% queue length | 0.02 | 0.16 | | 1.72 | | | 0.08 | |
| Control Delay | 8.6 | 8.1 | | 20.7 | | | 29.3 | |
| LOS | A | A | | C | | | D | |
| Approach Delay | | | | 20.7 | | | 29.3 | |
| Approach LOS | | | | C | | | D | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Felicita
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030 - Plus Project
Project ID: 040601- Homeland
East/West Street: Clarence
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 1 | 360 | 82 | 77 | 365 | 3 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 1 | 360 | 82 | 77 | 365 | 3 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT | | TR | LT | | TR |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 28 | 0 | 26 | 2 | 0 | 2 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 28 | 0 | 26 | 2 | 0 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LT | LT | | LTR | | | LTR | |
| v (vph) | 1 | 77 | | 54 | | | 4 | |
| C(m) (vph) | 1202 | 1129 | | 419 | | | 442 | |
| v/c | 0.00 | 0.07 | | 0.13 | | | 0.01 | |
| 95% queue length | 0.00 | 0.22 | | 0.44 | | | 0.03 | |
| Control Delay | 8.0 | 8.4 | | 14.9 | | | 13.2 | |
| LOS | A | A | | B | | | B | |
| Approach Delay | | | | 14.9 | | | 13.2 | |
| Approach LOS | | | | B | | | B | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 326 | 3 | 0 | 603 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 326 | 3 | 0 | 603 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 0 | | 8 | | | | |
| C(m) (vph) | | 1242 | | 383 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.00 | | 0.06 | | | | |
| Control Delay | | 7.9 | | 14.6 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.6 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 459 | 3 | 2 | 394 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 459 | 3 | 2 | 394 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 5 | | 3 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 5 | | 3 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | | 0 | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 2 | | 8 | | | | |
| C(m) (vph) | | 1110 | | 397 | | | | |
| v/c | | 0.00 | | 0.02 | | | | |
| 95% queue length | | 0.01 | | 0.06 | | | | |
| Control Delay | | 8.2 | | 14.3 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.3 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030+Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 326 | 4 | 1 | 603 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 326 | 4 | 1 | 603 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | | LT | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 7 | | 5 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 7 | | 5 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | 0 | | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 1 | | 12 | | | | |
| C(m) (vph) | | 1241 | | 394 | | | | |
| v/c | | 0.00 | | 0.03 | | | | |
| 95% queue length | | 0.00 | | 0.09 | | | | |
| Control Delay | | 7.9 | | 14.4 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.4 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Felicita/Miller
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030+Project
Project ID: 040601 - Homeland Estates
East/West Street: Miller
North/South Street: Felicita
Intersection Orientation: NS  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | | 459 | 6 | 4 | 394 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 459 | 6 | 4 | 394 | |
| Percent Heavy Vehicles | | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | | 1 | 0 | 0 | 1 | |
| Configuration | | | TR | LT | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 6 | | 4 | | | |
| Peak Hour Factor, PHF | 1.00 | | 1.00 | | | |
| Hourly Flow Rate, HFR | 6 | | 4 | | | |
| Percent Heavy Vehicles | 0 | | 0 | | | |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No | / | | / |
| Lanes | 0 | | 0 | | | |
| Configuration | | LR | | | | |

### Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | | LT | | LR | | | | |
| v (vph) | | 4 | | 10 | | | | |
| C(m) (vph) | | 1107 | | 400 | | | | |
| v/c | | 0.00 | | 0.03 | | | | |
| 95% queue length | | 0.01 | | 0.08 | | | | |
| Control Delay | | 8.3 | | 14.2 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay | | | | 14.2 | | | | |
| Approach LOS | | | | B | | | | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 11 | 40 | 1 | 1 | 72 | 1 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 11 | 40 | 1 | 1 | 72 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 6 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 6 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 11 | 1 | | 1 | | | 12 | |
| C(m) (vph) | 1540 | 1581 | | 1037 | | | 907 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.4 | 7.3 | | 8.5 | | | 9.0 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.5 | | | 9.0 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 60 | 4 | 1 | 52 | 5 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 60 | 4 | 1 | 52 | 5 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 2 | 0 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 2 | 0 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 7 | |
| C(m) (vph) | 1560 | 1551 | | 879 | | | 964 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.02 | |
| Control Delay | 7.3 | 7.3 | | 9.1 | | | 8.8 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 9.1 | | | 8.8 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: AM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030+Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 11 | 40 | 1 | 1 | 72 | 2 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 11 | 40 | 1 | 1 | 72 | 2 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 0 | 0 | 1 | 7 | 0 | 6 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 0 | 0 | 1 | 7 | 0 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 11 | 1 | | 1 | | | 13 | |
| C(m) (vph) | 1538 | 1581 | | 1037 | | | 899 | |
| v/c | 0.01 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.02 | 0.00 | | 0.00 | | | 0.04 | |
| Control Delay | 7.4 | 7.3 | | 8.5 | | | 9.1 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 8.5 | | | 9.1 | |
| Approach LOS | | | | A | | | A | |

HCS2000: Unsignalized Intersections Release 4.1d

## TWO-WAY STOP CONTROL SUMMARY

Analyst: bh
Agency/Co.: Darnell
Date Performed: 1/2005
Analysis Time Period: PM
Intersection: Clarence/Alexander
Jurisdiction: County
Units: U. S. Customary
Analysis Year: 2030+Project
Project ID: 040601 - Homeland
East/West Street: Clarence
North/South Street: Alexander
Intersection Orientation: EW  Study period (hrs): 0.25

### Vehicle Volumes and Adjustments

| Major Street: Approach | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | 4 | 60 | 4 | 1 | 52 | 7 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 4 | 60 | 4 | 1 | 52 | 7 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type/Storage | Undivided | | | / | | |
| RT Channelized? | | | | | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR | | | LTR | | |
| Upstream Signal? | | No | | | No | |

| Minor Street: Approach | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | 3 | 0 | 1 | 3 | 1 | 5 |
| Peak Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly Flow Rate, HFR | 3 | 0 | 1 | 3 | 1 | 5 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (%) | | 0 | | | 0 | |
| Flared Approach: Exists?/Storage | | | No / | | | No / |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | | LTR | | | LTR | |

### Delay, Queue Length, and Level of Service

| Approach | EB | WB | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | LTR | LTR | | LTR | | | LTR | |
| v (vph) | 4 | 1 | | 4 | | | 9 | |
| C(m) (vph) | 1558 | 1551 | | 877 | | | 921 | |
| v/c | 0.00 | 0.00 | | 0.00 | | | 0.01 | |
| 95% queue length | 0.01 | 0.00 | | 0.01 | | | 0.03 | |
| Control Delay | 7.3 | 7.3 | | 9.1 | | | 8.9 | |
| LOS | A | A | | A | | | A | |
| Approach Delay | | | | 9.1 | | | 8.9 | |
| Approach LOS | | | | A | | | A | |

D40

# APPENDIX E
# Cumulative Projects Data

| County Processing # | Project Name | Use | Size | | Project Location |
|---|---|---|---|---|---|
| MUP-01-002 | Hawthorne Horse Ranch | Horse boarding | 60 | ea | 1666 Citrus (1130-D3) |
| MUP-01-024 | Chalice | church | 1416 | sf | 2324 Miller (1129-J7) |
| MUP-02-002 | Casa de Oracion | church | 11400 | sf | Deodor and Calavo Dr (1129-E1) |
| MUP-03-002 | Howard House | Group care | 10 | bd | 2025 Oro Verde (1130-E4) |
| MUP-04-014 | NUW Management | Single Family | 742 | du | 2822 Country Club (1129-C6) |
| MUP-73-101 | Foursquare Gospel | Church/school | 44802 | sf | 927 Idaho (1130-B4) |
| MUP-88-076 | Park Hill Congregation | Church | 500 | seat | 2080 Encino (1130-C6) |
| MUP-89-039 | Speiler | Group care | 9 | bd | 2960 Bernardo (1149-H1) |
| STP-00-025 | | Estates | 3 | du | 2895 Glenview (1130-D7) |
| TM-4776 | Valla | Single Family | 47 | du | 2751 Mary (1130-D7) |
| TM-5159 | Crowe | Estates | 7 | du | 1980 Summit (1130-D4) |
| TM-5162 | Sierra Linda | Single Family | 44 | du | 1985 Summit (1130-D5) |
| TM-5365 (MUP-04 | NUW Management | Single Family | 102 | du | 3492 Mt. Whitney (1129-B4) |
| TM-5369 | Citrus Estates | Estates | 11 | du | Sunny Slope between Citrus/Summit (1130-D4) |
| TM-5382 | | Single Family | 70 | du | 1310 Montiel (1129-F2) |
| TPM-18646 | | Estates | 2 | du | 2813 Green Mtn. (1130-E7) |
| TPM-20075 | Lexus Investment | Estates | 4 | du | 1277 Daxi (1129-H6) |
| TPM-20088 | | Single Family | 3 | du | north of Gamble/west of Felicita |
| TPM-20099 | Darnall | Estates | 4 | du | 2155 Gamble (1129-H6) |
| TPM-20280 | Rehkopf | Estates | 2 | du | 3344 Ryan (1150-D2) |
| TPM-20447 | Hopwood | Estates | 2 | du | 3514 Purer (1149-G3) |
| TPM-20517 | Schelling | Estates | 4 | du | 1814 Highgrove (1130-F4) |
| TPM-20705 | Zungul | Estates | 2 | du | 3192 Rancho del Sol (1130-F7) |
| TPM-20733 | Stefan Terrace | Estates | 4 | du | 841 Saint Paul (1129-E1) |
| TPM-20810 | Petakovich | Estates | 4 | du | Mary Lane (1150-D1) |
| ZAP-00-019 | | Multi Use Field | 1 | ea | 2531 Country Club (1129-C6) |
| Escondido | Citracado Medical | Medical/Vet | Mixed | | east of I-15, south of Citracado |
| Escondido | | Residential/Retail | Mixed | | west of Escondido Pkwy/north of Valley Pkwy |
| Escondido | | Townhomes | 120 | du | west of Escondido Pkwy/north of Valley Pkwy |
| Escondido | Trinity | Apts/Single Family | Mixed | | west of Escondido Pkwy/north Felicita Rd |
| Escondido | | Office | 17000 | sf | Escondido Blvd/Grand Ave |
| Escondido | | Hotel | 200 | rm | Valley Pkwy east of Escondido Pkwy |
| Escondido | | Single Family | 12 | du | Felicita/I-15 |
| Escondido | Escondido Hotel | Mixed | Mixed | | Citracado: Escondido to Cranston |
| | | | | | |
| | | | | | |
| | | | | | |

E1

| TRAFFIC ANALYSIS ZONE Z | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | Use | Size | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| Z | Escondido | Medical/Vet | Mixed | | | | | | | | | 2900 | 174 | 139 | 35 | 319 | 117 | 202 |
| Z | Escondido | Residential/Retail | Mixed | | | | | | | | | 3104 | 161 | 54 | 107 | 279 | 164 | 115 |
| Z | Escondido | Townhomes | 120 | du | | | | | | | | 960 | 77 | 15 | 62 | 86 | 60 | 26 |
| Z | Escondido | Apts/Single Family | Mixed | | | | | | | | | 530 | 42 | 9 | 33 | 49 | 34 | 15 |
| Z | Escondido | Office | 17 | ksf | | | | | | | | 340 | 48 | 43 | 5 | 44 | 9 | 35 |
| Z | Escondido | Hotel | 200 | rm | | | | | | | | 2000 | 120 | 72 | 48 | 160 | 96 | 64 |
| Z | Escondido | Mixed Use | Mixed | | | | | | | | | 1362 | 99 | 38 | 61 | 126 | 77 | 49 |
| Z | Escondido | Single Family | 12 | du | | | | | | | | 144 | 12 | 4 | 8 | 14 | 10 | 4 |
| TOTALS ZONE F | | | | | | | | | | | | 11340 | 733 | 374 | 359 | 1077 | 567 | 510 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TOTAL TRIPS (ZONES A-Z) | 22869 | 1642 | 661 | 980 | 2214 | 1349 | 866 |

E2

| TRAFFIC ANALYSIS ZONE D | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | Use | Size | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| D | MUP-02-002 | church | 11.4 | ksf | 9 | 0.05 | 0.60 | 0.40 | 0.08 | 0.50 | 0.50 | 103 | 5 | 3 | 2 | 8 | 4 | 4 |
| D | TM-5382 | Single Family | 70 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 700 | 56 | 17 | 39 | 70 | 49 | 21 |
| D | TPM-20099 | Estates | 4 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 48 | 4 | 1 | 3 | 5 | 3 | 1 |
| D | TPM-20733 | Estates | 4 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 48 | 4 | 1 | 3 | 5 | 3 | 1 |
| TOTALS ZONE D | | | | | | | | | | | | 899 | 69 | 22 | 47 | 88 | 60 | 28 |

| TRAFFIC ANALYSIS ZONE E | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | Use | Size | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| E | MUP-04-014 | Single Family | 742 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 7420 | 594 | 178 | 416 | 742 | 519 | 223 |
| E | TM-5365 (MUP-04-0 | Single Family | 102 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 1020 | 82 | 24 | 57 | 102 | 71 | 31 |
| E | ZAP-00-019 | Multi Use Field | 5 | ac | 20 | 0.13 | 0.50 | 0.50 | 0.09 | 0.50 | 0.50 | 100 | 13 | 7 | 7 | 9 | 5 | 5 |
| TOTALS ZONE E | | | | | | | | | | | | 8540 | 688 | 209 | 479 | 853 | 595 | 258 |

| TRAFFIC ANALYSIS ZONE F | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | Use | Size | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| F | STP-00-025 | Estates | 3 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 36 | 3 | 1 | 2 | 4 | 3 | 1 |
| F | TM-4776 | Single Family | 47 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 470 | 38 | 11 | 26 | 47 | 33 | 14 |
| F | TPM-18646 | Estates | 2 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 24 | 2 | 1 | 1 | 2 | 2 | 1 |
| F | TPM-20280 | Estates | 2 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 24 | 2 | 1 | 1 | 2 | 2 | 1 |
| F | TPM-20810 | Estates | 4 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 48 | 4 | 1 | 3 | 5 | 3 | 1 |
| TOTALS ZONE F | | | | | | | | | | | | 602 | 48 | 14 | 34 | 60 | 42 | 18 |

E3

| TRAFFIC ANALYSIS ZONE A | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Use | Size | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | | | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| A | TPM-20447 | Estates | 2 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 24 | 2 | 1 | 1 | 2 | 2 | 1 |
| A | MUP-89-039 | Group care | 9 | bd | 3 | 0.07 | 0.60 | 0.40 | 0.07 | 0.40 | 0.60 | 27 | 2 | 1 | 1 | 2 | 1 | 1 |
| TOTALS ZONE A | | | | | | | | | | | | 51 | 4 | 2 | 2 | 4 | 2 | 2 |

| TRAFFIC ANALYSIS ZONE B | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Use | Size | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | | | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| B | MUP-01-024 | church | 1.416 | ksf | 9 | 0.05 | 0.60 | 0.40 | 0.08 | 0.50 | 0.50 | 13 | 1 | 0 | 0 | 1 | 1 | 1 |
| B | TPM-20075 | Estates | 4 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 48 | 4 | 1 | 3 | 5 | 3 | 1 |
| B | TPM-20088 | Single Family | 3 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 30 | 2 | 1 | 2 | 3 | 2 | 1 |
| TOTALS ZONE B | | | | | | | | | | | | 91 | 7 | 2 | 5 | 9 | 6 | 3 |

| TRAFFIC ANALYSIS ZONE C | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Use | Size | | SANDAG TRIP GENERATION RATES | | | | | | | SANDAG TRIP GENERATION CALCULATIONS | | | | | | |
| | | | | | | AM PEAK | | | PM PEAK | | | | AM PEAK | | | PM PEAK | | |
| TAZ | County # | | | | ADT | TOT | IN | OUT | TOT | IN | OUT | ADT | TOT | IN | OUT | TOT | IN | OUT |
| C | MUP-01-002 | Horse boarding | 60 | ea | 1 | 0.10 | 0.50 | 0.50 | 0.10 | 0.50 | 0.50 | 60 | 6 | 3 | 3 | 6 | 3 | 3 |
| C | MUP-03-002 | Group care | 10 | bd | 3 | 0.07 | 0.60 | 0.40 | 0.07 | 0.40 | 0.60 | 30 | 2 | 1 | 1 | 2 | 1 | 1 |
| C | MUP-73-101 | Church/school | 44.802 | ksf | 9 | 0.05 | 0.60 | 0.40 | 0.08 | 0.50 | 0.50 | 403 | 20 | 12 | 8 | 32 | 16 | 16 |
| C | MUP-88-076 | Church | 500 | seat | 0.25 | 0.05 | 0.60 | 0.40 | 0.08 | 0.50 | 0.50 | 125 | 6 | 4 | 3 | 10 | 5 | 5 |
| C | TM-5159 | Estates | 7 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 84 | 7 | 2 | 5 | 8 | 6 | 3 |
| C | TM-5162 | Single Family | 44 | du | 10 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 440 | 35 | 11 | 25 | 44 | 31 | 13 |
| C | TM-5369 | Estates | 11 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 132 | 11 | 3 | 7 | 13 | 9 | 4 |
| C | TPM-20517 | Estates | 4 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 48 | 4 | 1 | 3 | 5 | 3 | 1 |
| C | TPM-20705 | Estates | 2 | du | 12 | 0.08 | 0.30 | 0.70 | 0.10 | 0.70 | 0.30 | 24 | 2 | 1 | 1 | 2 | 2 | 1 |
| TOTALS ZONE C | | | | | | | | | | | | 1346 | 93 | 38 | 55 | 123 | 76 | 47 |

E4

## CUMULATIVE TRAFFIC
## VIA RANCHO PARKWAY/FELICITA

Intersection: Via Rancho Pkwy/I-15 S Jurisdiction: County
Day/Date: October 2004 By: Hartshorn

| | Interstate 15 Southbound | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 10 | 57 | 102 | 50 | 408 | 52 | 100 | 348 | 591 | 804 | 354 | 57 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | | | | | | 0 | 1 | 1 | | 1 | |
| **Existing+Project AM** | **10** | **57** | **102** | **50** | **408** | **52** | **100** | **349** | **592** | **804** | **355** | **57** |
| | | | | | | | | | | | | |
| Existing Traffic | 60 | 208 | 736 | 206 | 171 | 65 | 42 | 214 | 111 | 730 | 517 | 31 |
| | | | | | | | | | | | | |
| Homeland Estates | 1 | | | | | | | 0 | 1 | | 2 | |
| **Existing+Project PM** | **61** | **208** | **736** | **206** | **171** | **65** | **42** | **214** | **112** | **730** | **519** | **31** |

### CUMULATIVE TRAFFIC

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 10 | 57 | 102 | 50 | 408 | 52 | 100 | 348 | 591 | 804 | 354 | 57 |
| Growth (if applicable) | 11 | 60 | 108 | 53 | 432 | 55 | 106 | 369 | 626 | 852 | 375 | 60 |
| Cumulative | 1 | | 3 | | | | | 12 | 2 | 27 | 9 | |
| Growth+Cumulative | 11 | 60 | 111 | 53 | 432 | 55 | 106 | 381 | 628 | 879 | 385 | 60 |
| Homeland Estates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| **(WITH PROJECT AM)** | **11** | **60** | **111** | **53** | **432** | **55** | **106** | **382** | **629** | **879** | **386** | **60** |
| | | | | | | | | | | | | |
| Existing | 60 | 208 | 736 | 206 | 171 | 65 | 42 | 214 | 111 | 730 | 517 | 31 |
| Growth (if applicable) | 64 | 220 | 780 | 218 | 181 | 69 | 45 | 227 | 118 | 774 | 548 | 33 |
| Cumulative | 1 | | 8 | | | | | 12 | 1 | 20 | 16 | |
| Growth+Cumulative | 65 | 220 | 788 | 218 | 181 | 69 | 45 | 239 | 119 | 793 | 564 | 33 |
| Homeland Estates | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| **(WITH PROJECT PM)** | **66** | **220** | **788** | **218** | **181** | **69** | **45** | **239** | **120** | **793** | **566** | **33** |

### YEAR 2030 TRAFFIC

| | Interstate 15 Southbound | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 19 | 60 | 145 | 69 | 432 | 95 | 106 | 495 | 691 | 967 | 500 | 60 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| **(WITH PROJECT AM)** | **19** | **60** | **145** | **69** | **432** | **95** | **106** | **496** | **692** | **967** | **501** | **60** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 112 | 220 | 1025 | 284 | 181 | 119 | 45 | 310 | 131 | 873 | 733 | 33 |
| | | | | | | | | | | | | |
| Homeland Estates | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| **(WITH PROJECT PM)** | **113** | **220** | **1025** | **284** | **181** | **119** | **45** | **310** | **132** | **873** | **735** | **33** |

**CUMULATIVE TRAFFIC**
**VIA RANCHO PARKWAY/FELICITA**

Intersection: Via Rancho Pkwy/I-15 N Jurisdiction: County
Day/Date: October 2004 By: Hartshorn

| | Interstate 15 Northbound | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 114 | 47 | 329 | 3 | 60 | 8 | 31 | 437 | 100 | 314 | 1049 | 21 |
| | | | | | | | | | | | | |
| Homeland Estates | 1 | | | | | | | | 0 | | | |
| **Existing+Project AM** | **115** | **47** | **329** | **3** | **60** | **8** | **31** | **437** | **100** | **314** | **1049** | **21** |
| | | | | | | | | | | | | |
| Existing Traffic | 373 | 232 | 1092 | 45 | 250 | 169 | 233 | 706 | 182 | 407 | 758 | 39 |
| | | | | | | | | | | | | |
| Homeland Estates | 2 | | | | | | | | 1 | | | |
| **Existing+Project PM** | **375** | **232** | **1092** | **45** | **250** | **169** | **233** | **706** | **183** | **407** | **758** | **39** |

**CUMULATIVE TRAFFIC**

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 114 | 47 | 329 | 3 | 60 | 8 | 31 | 437 | 100 | 314 | 1049 | 21 |
| Growth (if applicable) | 121 | 50 | 349 | 3 | 64 | 8 | 33 | 463 | 106 | 333 | 1112 | 22 |
| Cumulative | 1 | | 16 | | | | | 12 | 1 | 6 | 35 | |
| Growth+Cumulative | 122 | 50 | 364 | 3 | 64 | 8 | 33 | 475 | 107 | 339 | 1147 | 22 |
| Homeland Estates | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT AM)** | **123** | **50** | **364** | **3** | **64** | **8** | **33** | **475** | **107** | **339** | **1147** | **22** |
| | | | | | | | | | | | | |
| Existing | 373 | 232 | 1092 | 45 | 250 | 169 | 233 | 706 | 182 | 407 | 758 | 39 |
| Growth (if applicable) | 395 | 246 | 1158 | 48 | 265 | 179 | 247 | 748 | 193 | 431 | 803 | 41 |
| Cumulative | 3 | | 35 | | | | | 16 | 1 | 4 | 32 | |
| Growth+Cumulative | 398 | 246 | 1193 | 48 | 265 | 179 | 247 | 764 | 194 | 436 | 835 | 41 |
| Homeland Estates | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| **(WITH PROJECT PM)** | **400** | **246** | **1193** | **48** | **265** | **179** | **247** | **764** | **195** | **436** | **835** | **41** |

**YEAR 2030 TRAFFIC**

| | Interstate 15 Northbound | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 159 | 50 | 401 | 4 | 64 | 15 | 33 | 618 | 139 | 441 | 1261 | 22 |
| | | | | | | | | | | | | |
| Homeland Estates | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT AM)** | **160** | **50** | **401** | **4** | **64** | **15** | **33** | **618** | **139** | **441** | **1261** | **22** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 518 | 246 | 1312 | 62 | 265 | 308 | 247 | 993 | 252 | 566 | 919 | 41 |
| | | | | | | | | | | | | |
| Homeland Estates | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| **(WITH PROJECT PM)** | **520** | **246** | **1312** | **62** | **265** | **308** | **247** | **993** | **253** | **566** | **919** | **41** |

**CUMULATIVE TRAFFIC**
**VIA RANCHO PARKWAY/FELICITA**

Intersection: Via Rancho Pkwy/Felicita Jurisdiction: County
Day/Date: June 2004 By: Hartshorn

| | Felicita | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 0 | 10 | 2 | 70 | 22 | 49 | 39 | 322 | 3 | 3 | 358 | 74 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Existing+Project AM** | **0** | **10** | **2** | **72** | **22** | **49** | **39** | **322** | **3** | **3** | **358** | **75** |
| | | | | | | | | | | | | |
| Existing Traffic | 1 | 8 | 0 | 270 | 10 | 32 | 40 | 643 | 1 | 2 | 297 | 98 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **Existing+Project PM** | **1** | **8** | **0** | **271** | **10** | **32** | **40** | **643** | **1** | **2** | **297** | **101** |

**CUMULATIVE TRAFFIC**

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 0 | 10 | 2 | 70 | 22 | 49 | 39 | 322 | 3 | 3 | 358 | 74 |
| Growth (if applicable) | 0 | 11 | 2 | 74 | 23 | 52 | 41 | 341 | 3 | 3 | 379 | 78 |
| Cumulative | | | | 4 | | 0 | 1 | 9 | | | 8 | 2 |
| Growth+Cumulative | 0 | 11 | 2 | 79 | 23 | 52 | 42 | 351 | 3 | 3 | 387 | 81 |
| Homeland Estates | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **(WITH PROJECT AM)** | **0** | **11** | **2** | **81** | **23** | **52** | **42** | **351** | **3** | **3** | **387** | **82** |
| | | | | | | | | | | | | |
| Existing | 1 | 8 | 0 | 270 | 10 | 32 | 40 | 643 | 1 | 2 | 297 | 98 |
| Growth (if applicable) | 1 | 8 | 0 | 286 | 11 | 34 | 42 | 682 | 1 | 2 | 315 | 104 |
| Cumulative | | | | 3 | | 1 | 0 | 10 | | | 12 | 5 |
| Growth+Cumulative | 1 | 8 | 0 | 290 | 11 | 35 | 43 | 692 | 1 | 2 | 326 | 109 |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **(WITH PROJECT PM)** | **1** | **8** | **0** | **291** | **11** | **35** | **43** | **692** | **1** | **2** | **326** | **112** |

**YEAR 2030 TRAFFIC**

| | Felicita | | | | | | Via Rancho Parkway | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 0 | 11 | 2 | 136 | 23 | 54 | 44 | 393 | 3 | 3 | 403 | 244 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **(WITH PROJECT AM)** | **0** | **11** | **2** | **138** | **23** | **54** | **44** | **393** | **3** | **3** | **403** | **245** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 1 | 8 | 0 | 499 | 11 | 36 | 45 | 775 | 1 | 2 | 340 | 333 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **(WITH PROJECT PM)** | **1** | **8** | **0** | **500** | **11** | **36** | **45** | **775** | **1** | **2** | **340** | **336** |

## CUMULATIVE TRAFFIC
## FELICITA/CLARENCE

Intersection: Felicita/Clarence Jurisdiction: County
Day/Date: June 2004 By: Hartshorn

| | Felicita | | | | | | Clarence | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 5 | 101 | 8 | 27 | 182 | 1 | 4 | 0 | 0 | 20 | 0 | 39 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Existing+Project AM** | **5** | **102** | **8** | **27** | **184** | **1** | **4** | **0** | **0** | **20** | **0** | **39** |
| | | | | | | | | | | | | |
| Existing Traffic | 1 | 107 | 35 | 33 | 112 | 3 | 2 | 0 | 2 | 12 | 0 | 11 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Existing+Project PM** | **1** | **110** | **35** | **33** | **113** | **3** | **2** | **0** | **2** | **12** | **0** | **11** |

### CUMULATIVE TRAFFIC

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 5 | 101 | 8 | 27 | 182 | 1 | 4 | 0 | 0 | 20 | 0 | 39 |
| Growth (if applicable) | 5 | 107 | 8 | 29 | 193 | 1 | 4 | 0 | 0 | 21 | 0 | 41 |
| Cumulative | | 2 | | | 3 | | | | | | | |
| Growth+Cumulative | 5 | 109 | 8 | 29 | 196 | 1 | 4 | 0 | 0 | 21 | 0 | 41 |
| Homeland Estates | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT AM)** | **5** | **110** | **8** | **29** | **198** | **1** | **4** | **0** | **0** | **21** | **0** | **41** |
| | | | | | | | | | | | | |
| Existing | 1 | 107 | 35 | 33 | 112 | 3 | 2 | 0 | 2 | 12 | 0 | 11 |
| Growth (if applicable) | 1 | 113 | 37 | 35 | 119 | 3 | 2 | 0 | 2 | 13 | 0 | 12 |
| Cumulative | | 3 | | | 2 | | | | | | | |
| Growth+Cumulative | 1 | 117 | 37 | 35 | 121 | 3 | 2 | 0 | 2 | 13 | 0 | 12 |
| Homeland Estates | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT PM)** | **1** | **120** | **37** | **35** | **122** | **3** | **2** | **0** | **2** | **13** | **0** | **12** |

### YEAR 2030 TRAFFIC

| | Felicita | | | | | | Clarence | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 5 | 328 | 19 | 63 | 591 | 1 | 4 | 0 | 0 | 47 | 0 | 91 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT AM)** | **5** | **329** | **19** | **63** | **593** | **1** | **4** | **0** | **0** | **47** | **0** | **91** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 1 | 357 | 82 | 77 | 364 | 3 | 2 | 0 | 2 | 28 | 0 | 26 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **(WITH PROJECT PM)** | **1** | **360** | **82** | **77** | **365** | **3** | **2** | **0** | **2** | **28** | **0** | **26** |

E 8

## CUMULATIVE TRAFFIC
## FELICITA/MILLER

Intersection: Felicita/Miller Jurisdiction: County
Day/Date: June 2004 By: Hartshorn

| | Felicita | | | | | | Miller | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 0 | 101 | 3 | 0 | 187 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| **Existing+Project AM** | **0** | **101** | **4** | **1** | **187** | **0** | **0** | **0** | **0** | **7** | **0** | **5** |
| | | | | | | | | | | | | |
| Existing Traffic | 0 | 141 | 3 | 2 | 122 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| **Existing+Project PM** | **0** | **141** | **6** | **4** | **122** | **0** | **0** | **0** | **0** | **6** | **0** | **4** |

### CUMULATIVE TRAFFIC

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 0 | 101 | 3 | 0 | 187 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Growth (if applicable) | 0 | 107 | 3 | 0 | 198 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Cumulative | | 2 | | | 3 | | | | | | | |
| Growth+Cumulative | 0 | 109 | 3 | 0 | 201 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Homeland Estates | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| **(WITH PROJECT AM)** | **0** | **109** | **4** | **1** | **201** | **0** | **0** | **0** | **0** | **7** | **0** | **5** |
| | | | | | | | | | | | | |
| Existing | 0 | 141 | 3 | 2 | 122 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Growth (if applicable) | 0 | 149 | 3 | 2 | 129 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Cumulative | | 3 | | | 2 | | | | | | | |
| Growth+Cumulative | 0 | 153 | 3 | 2 | 131 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| Homeland Estates | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| **(WITH PROJECT PM)** | **0** | **153** | **6** | **4** | **131** | **0** | **0** | **0** | **0** | **6** | **0** | **4** |

### YEAR 2030 TRAFFIC

| | Felicita | | | | | | Miller | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 0 | 326 | 3 | 0 | 603 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| **(WITH PROJECT AM)** | **0** | **326** | **4** | **1** | **603** | **0** | **0** | **0** | **0** | **7** | **0** | **5** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 0 | 459 | 3 | 2 | 394 | 0 | 0 | 0 | 0 | 5 | 0 | 3 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| **(WITH PROJECT PM)** | **0** | **459** | **6** | **4** | **394** | **0** | **0** | **0** | **0** | **6** | **0** | **4** |

E9

**CUMULATIVE TRAFFIC**
**CLARENCE/ALEXANDER**

Intersection: Clarence/Alexander Jurisdiction: County
Day/Date: June 2004 By: Hartshorn

| | Alexander | | | | | | Clarence | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing Traffic | 0 | 0 | 1 | 6 | 0 | 6 | 10 | 10 | 1 | 1 | 18 | 1 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Existing+Project AM** | **0** | **0** | **1** | **7** | **0** | **6** | **10** | **10** | **1** | **1** | **18** | **2** |
| | | | | | | | | | | | | |
| Existing Traffic | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 15 | 4 | 1 | 13 | 5 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| **Existing+Project PM** | **3** | **0** | **1** | **2** | **1** | **5** | **4** | **15** | **4** | **1** | **13** | **7** |

**CUMULATIVE TRAFFIC**

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Existing | 0 | 0 | 1 | 6 | 0 | 6 | 10 | 10 | 1 | 1 | 18 | 1 |
| Growth (if applicable) | 0 | 0 | 1 | 6 | 0 | 6 | 11 | 11 | 1 | 1 | 19 | 1 |
| Cumulative | | | | | | | | | | | | |
| Growth+Cumulative | 0 | 0 | 1 | 6 | 0 | 6 | 11 | 11 | 1 | 1 | 19 | 1 |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **(WITH PROJECT AM)** | **0** | **0** | **1** | **7** | **0** | **6** | **11** | **11** | **1** | **1** | **19** | **2** |
| | | | | | | | | | | | | |
| Existing | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 15 | 4 | 1 | 13 | 5 |
| Growth (if applicable) | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 16 | 4 | 1 | 14 | 5 |
| Cumulative | | | | | | | | | | | | |
| Growth+Cumulative | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 16 | 4 | 1 | 14 | 5 |
| Homeland Estates | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| **(WITH PROJECT PM)** | **3** | **0** | **1** | **2** | **1** | **5** | **4** | **16** | **4** | **1** | **14** | **7** |

**YEAR 2030 TRAFFIC**

| | Alexander | | | | | | Clarence | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| 2030 WITHOUT AM | 0 | 0 | 1 | 6 | 0 | 6 | 11 | 40 | 1 | 1 | 72 | 1 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **(WITH PROJECT AM)** | **0** | **0** | **1** | **7** | **0** | **6** | **11** | **40** | **1** | **1** | **72** | **2** |
| | | | | | | | | | | | | |
| 2030 WITHOUT PM | 3 | 0 | 1 | 2 | 0 | 5 | 4 | 60 | 4 | 1 | 52 | 5 |
| | | | | | | | | | | | | |
| Homeland Estates | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| **(WITH PROJECT PM)** | **3** | **0** | **1** | **2** | **1** | **5** | **4** | **60** | **4** | **1** | **52** | **7** |

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# APPENDIX F
# Responses to County Comments

**Darnell** & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

# MEMORANDUM

DATE: April 28, 2005

TO: Hedy Levine, REC Consulting, Inc.

FROM: Vicki S. Haskell, P. E. VSH

D&A Ref. No: 040601

RE: Homeland Estates Response to County Comments Dated April 8, 2005

Darnell & Associates, Inc. has reviewed the County of San Diego's April 8, 2005 Comments on our February 1, 2005 Traffic Study for the Homeland Estates (TM 5362) project. The following summarizes our responses to each of the County's comments. These responses have been incorporated into our latest submittal of the traffic study.

**Comment 1:** The Traffic Study proposes (Pg. 31) that the project make a fair-share contribution towards improvements to Via Rancho Parkway to mitigate its cumulative impacts. There must be officially established improvements projects in place that are eligible to receive the proposed fair-share contribution. The Traffic Study must identify what County improvement projects are eligible to receive the proposed fair-share contribution. Without the improvement projects or Traffic Impact Fee (TIF) program, the project must recommend physical, spot road/intersection improvements to mitigate the project's cumulative impacts.

**Response 1:** The revised report recommends paying the TIF equivalent of 10 dwelling units as cumulative mitigation.

**Comment 2:** The project applicant/consultant should coordinate with the City of Escondido regarding the proposed improvements to the segment (Felicita Road to I-15) of Via Rancho Parkway located within their jurisdiction. City staff should determine/verify the suitability of the proposed mitigation measures.

**Response 2:** The project does not have impacts on City of Escondido streets based on City criteria. No mitigation is required by the project for this segment.



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**Comment 3:** If there are officially established improvement projects that are eligible for fair-share contributions, the recommended amount of the fair-share contributions should be calculated and identified in the Traffic Study.

**Response 3:** Mitigation has been revised to reflect payment into the TIF equivalent of 10 dwelling units. No fair-share percentages are required as the value is a flat fee..

**Comment 4:** The Traffic Study states (Pg. 30) that driveways and private streets which do not meet the minimum 200 feet requirement will be required to process a design exception. The Traffic Study should identify any specific driveway and private street designs that may require a design exception. If any design exceptions are required, the DPW Traffic Section should review all proposals.

**Response 4:** D&A does not generally process the design exceptions. This is deferred to the client. No revisions to the traffic study are made based on this comment.

**Comment 5:** The subject project may have significant cumulative impacts on the following list of roadways in the project vicinity:

- 17th Avenue
- Bear Valley Parkway
- Buena Creek Road
- Champagne Boulevard
- Deer Springs Road
- Del Dios Highway
- Harmony Grove Road
- Hollyberry Drive
- North Centre City Parkway
- Rock Springs Road
- Salem Street
- San Pasquel Valley Road
- South Santa Fe Avenue
- Sycamore Avenue

**Response 5:** Further review of the select zone forecast that was run for the proposed project found that the project will add traffic and therefore may have cumulative impacts on the following roadway segments:

- 17th Avenue - project contributes 6% per model, which is seven (7) vehicles.
- Bear Valley Parkway - 2% or 2 vehicles
- Buena Creek Road - 0%, zero vehicles
- Champagne Boulevard - 0%, zero vehicles
- Deer Springs Road - 0%, zero vehicles
- Del Dios Highway - 1%, 1 vehicle
- Harmony Grove - 0.2%, less than one (1) vehicle
- Hollyberry Drive - 0%, zero vehicles
- North Centre City Pkwy - 0%, zero vehicles
- Rock Springs Road - 0%, zero vehicles

- Salem Street - 0%, zero vehicles
- San Pasquel Valley Road - 0.7%, less than one (1) vehicle
- South Santa Fe Avenue - 0%, zero vehicles
- Sycamore Avenue - 0%, zero vehicles

These segments are not included in the revised traffic study because mitigation for all segments within the County are solved through payment of the TIF. The project does not generate enough traffic to meet City of Escondido criteria for impacts to City streets.

**Comment 6:** The study should include an analysis of potential traffic impacts after implementation of any direct or cumulative mitigation measures to determine the resulting level of significance.

**Response 6:** The study already identifies the potential traffic impacts. The project does not have any direct impacts and the cumulative impacts are mitigated by paying the TIF fee. Since no specific improvements are identified, there are no mitigated levels of service to report.

**Comment 7:** The next iteration traffic study, DPLU will be providing a copy of the Traffic Study to the City of Escondido for their review and comments. If there are cumulative impacts to Via Rancho Parkway or other facilities in the City's jurisdiction, the study should propose mitigation, separate from the potential TIF program.

**Response 7:** The project does not exceed the City of Escondido's impact criteria on City streets and intersections.

**Darnell** & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

# MEMORANDUM

DATE: January 31, 2005

TO: Standard Pacific Homes

FROM: Darnell & Associates, Inc.

D&A Ref. No: 040601

RE: Homeland Estates - County Response to Comments

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We are in receipt of County comments dated September 3, 2004 regarding the Homeland Estates Project and offer the following responses to the traffic related section:

*Comment 1:* *The study should be revised in compliance with the County's draft guidelines.*

Response 1: The study has been revised accordingly.

*Comment 2:* *Existing Conditions should include a description of Centre City Parkway.*

Response 2: This has been included.

*Comment 3:* *Figure 3-10 should show a connection of Clarence Lane to Center City Parkway.*

Response 3: This has been included in all graphics.

*Comment 4:* *Revise tables 3 and 6 to assess impacts to Center City Parkway.*

Response 4: Tables now include Center City Parkway roadway segment (table numbers have changed).

*Comment 5:* *Address the adequacy of corner sight distance and project driveways.*

Response 5: This has been addressed in the revised study to state that all driveways/streets must conform to minimum corner sight distance requirements or otherwise petition for design exceptions.



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*Comment 6:* *Address intersection spacing requirements.*

Response 6: This has been addressed in the revised study to state that all driveways/streets must conform to County spacing requirements or otherwise petition for design exceptions.

*Comment 7:* *Increase frontage road requirements to 28 feet based on interim Public Road Standards.*

Response 7: This requirement has been added.

*Comment 8:* *Summary of findings should reflect LOS E condition at Via Rancho Parkway.*

Response 8: Via Rancho Parkway and its intersections and segments are summarized accordingly. Note that the comment refers to an "intersection" impact, however, the tables and the deficiency refer to a "roadway segment" deficiency. The revised study notes the roadway segment impact and has included additional intersections on Via Rancho Parkway to include the Interstate 15 ramps.