APPENDIX B

TRAFFIC IMPACT ANALYSIS

TRAFFIC IMPACT ANALYSIS
VILLAGE 7
CITY OF CHULA VISTA, CALIFORNIA

Date: June 7, 2004

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OTAY RANCH VILLAGE 7
TRAFFIC IMPACT ANALYSIS
CHULA VISTA, CALIFORNIA
June 7, 2004

1.0 Introduction

The following traffic impact analysis has been prepared for the proposed Otay Ranch Village 7, in the eastern territories of Chula Vista. The project is located east of the future La Media Road south of Birch Road. A detailed project description is included in the following section.

Included in this traffic study are the following:

- Introduction
- Project Description
- Study Area and Scenarios
- Existing Conditions Description
- Analysis Approach and Methodology
- Existing Operations
- Future Traffic Volume Determination
- Project Trip Generation
- Project Traffic Distribution/Assignment
- Significance Criteria
- Future Conditions Analysis
- Freeway Analysis
- Congestion Management Plan Compliance
- Access Assessment
- Pre SR 125 Analysis
- PFFP Assessment
- Significance of Impacts Discussion
- Mitigation Measures Recommendations

2.0 Project Description

The project proposes a plan of development for the McMillin Otay Ranch, LLC and Otay Project LP ownerships in Village 7. Village 7 is one of the 12 Villages in the City of Chula Vista comprising the Otay Ranch GDP. Development of the proposed *Village 7 SPA Plan* would allow for a range of residential, public, and open space uses in the Eastern Territories portion of the City of Chula Vista. Concurrent with the processing of the *Village 7 SPA Plan* project, TMs have been submitted to the City for development of the McMillin Otay Ranch, LLC site and the Otay Project LP site. This EIR also evaluates the proposed TMs.

Figure 1 depicts the project vicinity and **Figure 2** shows a detailed map of the project area

2.1 LAND USE DESCRIPTION

The *Village 7 SPA Plan* project would implement the Otay Ranch GDP for the McMillin Otay Ranch, LLC and Otay Project LP ownerships within Village 7. The land uses proposed are in conformance with the Otay Ranch GDP, and no amendment to the GDP is required or proposed. The following is a detailed description of the project elements.

LAND USES

The land uses proposed by the project are consistent with the adopted (in the Year 1993) Otay Ranch Development Plan (GDP). The residential unit counts, 1,053 single-family and 448 multi-family match those of the GDP. The proposed plan also provides sites for a high school, middle school and elementary school along with a village core and neighborhood park, consistent with the description of Village 7 in the adopted GDP.

PHASING

The Sweetwater Union School District proposes to build a high school in Village 7 by the Year 2005. The remaining land uses within Village 7 will be built in phases in accordance with the adopted Public Facilities Financing Program (PFFP) for the project. **Table 1** summarizes the proposed land uses.

2.2 PROJECT ACCESS

One access driveway each along Birch Road, La Media Road and Rock Mountain Road are planned. In addition, a fourth access connects the project site to the planned Eastern Urban Center (EUC) site east of SR 125. Each project access is briefly described below. **Figure 3** depicts the site utilization plan.

- **Magdelena Avenue/Birch Road** will be a four-leg signalized intersection providing access to the northern portion of Village 7.
- **Magdelena Avenue/Rock Mountain Road** will ultimately be a four-leg signalized intersection providing access to the southern portion of Village 7.
- **Street "C"/La Media Road** will ultimately be a four-leg signalized intersection providing access to the western portion of Village 7 and potentially to the Village 4 community park to the west of La Media Road.
- **EUC Site Access (Street "F")** will be a 2-lane unclassified roadway connection to the EUC, east of SR 125.

The following traffic controls are planned for the internal intersections in Village 7. This is explained in more detail in Section 14.3.

- Magdalena Avenue/Street "J" - All–way STOP
- Magdalena Avenue/Street "D" - All–way STOP
- Magdalena Avenue/MU-1 Access - All–way STOP
- Magdalena Avenue/Street "E" - All–way STOP
- Magdalena Avenue/Street "C" - Traffic Signal

2.3 SWEETWATER UNION HIGH SCHOOL #13

A separate traffic impact analysis is currently under preparation for the high school (Sweetwater Union High School #13) in Village 7. The Sweetwater Union High School District is considering a location in the southeastern portion of Village 7, east of Magdalena Avenue, the main north/south access route through Village 7 connecting Birch Road and Rock Mountain Road. The report for the high school addresses near-term and long-term access issues and recommends intersection geometry and traffic control on Magdalena Avenue at the main school Driveway.

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3.0 Study Area, Scenarios and SANDAG Modeling

3.1 STUDY AREA

Based on the distribution of project traffic as determined by the Select Zone Assignment (SZA) and the requirements of the Congestion Management Plan (CMP), the study area described below was established. The study area is bound by Telegraph Canyon Road/Otay Lakes Road to the north, Hunte Parkway to the east, Main Street to the south and Interstate 805 (I-805) to the west. All signalized intersections, freeway interchanges and street segments within this area are analyzed under all scenarios, in this report. The project access intersections on Birch Road, Rock Mountain Road and La Media Road are also analyzed. The following Circulation Element intersections and segments are analyzed in this report:

INTERSECTIONS

1. Telegraph Canyon Road/I-805 SB Ramps
2. Telegraph Canyon Road/I-805 NB Ramps
3. Telegraph Canyon Road/Oleander Avenue
4. Telegraph Canyon Road/Medical Center Drive
5. Telegraph Canyon Road/Paseo Ranchero/Heritage Road
6. Telegraph Canyon Road/Otay Lakes Road/La Media Road
7. Otay Lakes Road/SR 125 SB Ramps *
8. Otay Lakes Road/ SR 125 NB Ramps *
9. Otay Lakes Road/Eastlake Parkway
10. Otay Lakes Road/Hunte Parkway
11. Palomar Street/Oleander Avenue
12. Palomar Street/Brandywine Avenue
13. Palomar Street/Heritage Road
14. Palomar Street/La Media Road
15. Olympic Parkway/I-805 SB Ramps
16. Olympic Parkway/I-805 NB Ramps
17. Olympic Parkway/Oleander Avenue
18. Olympic Parkway/Brandywine Avenue
19. Olympic Parkway/Heritage Road
20. Olympic Parkway/La Media Road
21. Olympic Parkway/Palomar Street
22. Olympic Parkway/SR 125 SB Ramps *
23. Olympic Parkway/SR 125 NB Ramps *
24. Olympic Parkway/Eastlake Parkway

25. Olympic Parkway/Hunte Parkway
26. Main Street/I-805 SB Ramps
27. Main Street/I-805 NB Ramps
28. Main Street/Oleander Avenue
29. Main Street/Brandywine Avenue
30. Birch Road/Heritage Road *
31. Birch Road/La Media Road *
32. Birch Road/SR 125/SB Ramps *
33. Birch Road/ SR 125/NB Ramps *
34. Birch Road/Eastlake Parkway *
35. Rock Mountain Road/La Media Road *
36. Rock Mountain Road/SR 125 SB Ramps *
37. Rock Mountain Road/SR 125 NB Ramps *
38. Hunte Parkway/Eastlake Parkway
39. Heritage Road/Main Street *
40. Rock Mountain Road/Main Street *
41. Main Street/La Media Road *
42. Main Street/SR 125 SB Ramps *
43. Main Street/SR 125 NB Ramps *

Note: * - Future intersections.

SEGMENTS

- **TELEGRAPH CANYON ROAD**
  - I-805 to Oleander Avenue
  - Oleander Avenue to Medical Center Drive
  - Medical Center Drive to Paseo Ranchero/Heritage Road
  - Paseo Ranchero/Heritage Road to Otay Lakes Road

- **OTAY LAKES ROAD**
  - North of Telegraph Canyon Road
  - La Media Road to SR 125
  - SR 125 to Eastlake Parkway
  - Eastlake Parkway to Lane Avenue

- **PALOMAR STREET**
  - I-805 to Oleander Avenue
  - Oleander Avenue to Medical Center Drive
  - Medical Center Drive to Heritage Road
  - Heritage Road to La Media Road
  - La Media Road to Olympic Parkway

- **OLYMPIC PARKWAY**
  - I-805 to Medical Center Drive
  - Medical Center Drive to Heritage Road
  - Heritage Road to La Media Road
  - La Media Road to Palomar Street
  - Palomar Street to SR 125
  - SR 125 to Eastlake Parkway
  - Eastlake Parkway to Hunte Parkway

- **BIRCH ROAD**
  - La Media Road to SR 125
  - SR 125 to Eastlake Parkway

- **ROCK MOUNTAIN ROAD**
  - Main Street to La Media Road
  - La Media Road to SR 125
  - SR 125 to Eastlake Parkway

- **MAIN STREET**
  - I-805 to Oleander Avenue
  - Oleander Avenue to Brandywine Avenue
  - Brandywine Avenue to Heritage Road
  - Heritage Road to Rock Mountain Road
  - Rock Mountain Road to La Media Road
  - La Media Road to SR 125 SB Ramps

- **OLEANDER AVENUE**
  - Telegraph Canyon Road to Palomar Street
  - Palomar Street to Olympic Parkway
  - Olympic Parkway to Main Street

- **MEDICAL CENTER DRIVE**
  - Telegraph Canyon Road to Palomar Street

- **BRANDYWINE AVENUE**
  - Palomar Street to Olympic Parkway
  - Olympic Parkway to Main Street

- **PASEO RANCHERO**
  - North of Telegraph Canyon Road
  - Telegraph Canyon Road to Palomar Street
  - Palomar Street to Olympic Parkway
  - Olympic Parkway to Birch Road
  - Birch Road to Main Street

- **LA MEDIA ROAD**
  - Telegraph Canyon Road to Palomar Street
  - Palomar Street to Olympic Parkway
  - Olympic Parkway to Birch Road
  - Birch Road to Rock Mountain Road
  - Rock Mountain Road to Main Street

- **EASTLAKE PARKWAY**
  - Fenton Street to Otay Lakes Road
  - Otay Lakes Road to Olympic Parkway
  - Olympic Parkway to Birch Road
  - Birch Road to Rock Mountain Road

- **HUNTE PARKWAY**
  - Otay Lakes Road to Clubhouse Drive
  - Clubhouse Drive to Olympic Parkway
  - Olympic Parkway to Eastlake Parkway

3.2 ANALYSIS BACKGROUND

The adopted land uses and circulation element are currently under review as part of the City-wide General Plan Update and some changes are proposed. These proposed changes are described below:

Proposed Land Use Changes

Table 1A summarizes the three alternate land use plans under consideration by the City as part of the 2020 General Plan Update for Villages 2, 3,4, 7, 8 and 9. Adoption of the General Plan Update is anticipated prior to the approval of the Village Two SPA Plan. The Village Two proposed project is contained in GPU Alternative 2, which also contains the most intensive residential densities of the three alternatives. Therefore, the most intensive land uses proposed in General Plan Update Alternative 2 have been included in this analysis to insure the worst-case scenario is analyzed. The other General Plan Update land use plans in Alternatives 1 and 3 are less intense and have not been included in this analysis.

Proposed Circulation Element

Figures 3A and 3B depict the Adopted and General Plan Update (currently being updated) Proposed Circulation Elements respectively. As seen in Figure 3A, in the adopted circulation element, Main Street extends east to SR 125, with an interchange at SR 125. Rock Mountain Road intersects Main Street between Heritage Road and La Media Road. As seen in Figure 3B, in the proposed Circulation Element, Main Street terminates at Heritage Road. The Main Street/SR 125 interchange will no longer be built. Rock Mountain Road is the east leg of the Heritage Road/Main Street intersection and La Media Road will terminate in Village 8.

3.3 ANALYSIS SCENARIOS

A total of 10 Scenarios are analyzed in this report, which have different assumptions concerning study area, land use assumptions and roadway network assumptions. The three basic assumptions for the scenarios are:

- **Development Plan I**

  In Development Plan I, analysis of all study area intersections and segments will be conducted for the Year 2005, 2010, 2015, 2030 and buildout timeframes with the **proposed** project land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7), City of Chula Vista **adopted General Plan** land uses outside Village 7 and **adopted** City of Chula Vista Circulation Element.

- **Development Plan II**

  In Development Plan II, analysis of all study area intersections and segments will be conducted for the Year 2005, 2010, 2015, 2030 and buildout timeframes with the **proposed** project land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7), **proposed** land uses outside Village 7 and **proposed** City of Chula Vista Circulation Element. The proposed land uses and Circulation Element are derived from the General Plan Update. The proposed land uses represent the "worst case" or "highest intensity" land uses.

For both buildout conditions, the model assumes that the entire City of Chula Vista circulation element and land uses are built and there is no toll on SR 125.

Table IB summarizes the assumptions for each analysis scenario. The project phasing is incorporated into each analysis timeframe. The project phasing is summarized in a later section of this report (Table 12). **Appendix I** contains the SANDAG modeling list, indicating the details of each scenario.

The following is a description of each scenario within each Development Plan.

3.3.1 DEVELOPMENT PLAN I

SCENARIO 1

The analysis time frame for this scenario is the approximate project opening year (Year 2005). It is assumed that SR 125 is not built and Heritage Road is not connected to Main Street. The **proposed** land uses are assumed for Village 7. It may be noted that the proposed project land uses are the same as the adopted GDP land uses for Village 7. The **adopted General Plan** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **adopted** Circulation Element is assumed.

SCENARIO 2

The analysis time frame for this scenario is the Year 2010. It is assumed that SR 125 is built and Heritage Road is connected southbound to Main Street. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **adopted General Plan** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **adopted** Circulation Element is assumed.

SCENARIO 3

The analysis time frame for this scenario is the Year 2015. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **adopted General Plan** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **adopted** Circulation Element is assumed.

SCENARIO 4

The analysis time frame for this scenario is the Year 2030. It is assumed that SR 125 is still a toll facility. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **adopted General Plan** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **adopted** Circulation Element is assumed.

SCENARIO 5

The analysis time frame for this scenario is the City of Chula Vista buildout. It is assumed that SR 125 is no longer a toll facility. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **adopted General Plan** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **adopted** Circulation Element is assumed.

3.3.2 DEVELOPMENT PLAN II

SCENARIO 6

The analysis time frame for this scenario is the project opening year (Year 2005). It is assumed that SR 125 is not built and Heritage Road is not connected to Main Street. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **proposed** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **proposed** Circulation Element is assumed.

SCENARIO 7

The analysis time frame for this scenario is the Year 2010. It is assumed that SR 125 is built and Heritage Road is connected to Main Street. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **proposed** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **proposed** Circulation Element is assumed.

SCENARIO 8

The analysis time frame for this scenario is the Year 2015. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **proposed** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **proposed** Circulation Element is assumed.

SCENARIO 9

The analysis time frame for this scenario is the Year 2030. It is assumed that SR 125 is still a toll facility. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **proposed** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **proposed** Circulation Element is assumed.

SCENARIO 10

The analysis time frame for this scenario is the City of Chula Vista buildout. It is assumed that SR 125 is no longer a toll facility. The **proposed** land uses (the proposed project land uses are the same as the adopted GDP land uses for Village 7) are assumed for Village 7. The **proposed** land uses are assumed for the City of Chula Vista outside Village 7. The City of Chula Vista **proposed** Circulation Element is assumed.

3.4 SANDAG MODELING

The basis of the traffic analysis is the Series 10.0, 2030 City/County Forecast Traffic Model, which is produced by the San Diego Association of Governments (SANDAG). Linscott, Law & Greenspan (LLG) worked with the City of Chula Vista and SANDAG to input the proper land use and network designations into the model for the 10 study scenarios listed in the previous subsection.

For each of these study scenarios, the model was run with the appropriate land use, City of Chula Vista Circulation Element and the planned SR 125 assumptions for the entire study area. The Village 7 project land uses were coded into the Traffic Model exactly as proposed or adopted as appropriate. After the proper land use intensities and network configurations were entered into the model for each study scenario, the model was run. The SANDAG model outputs Average Daily Traffic volumes (ADTs) on all Circulation Element street segments. **Volume 2 of the Appendix– SANDAG Model Land Use Inputs (Appendices A** through **K)** includes the land use inventories used in the SANDAG Model for each of the ten scenarios.

The SANDAG model volumes for each scenario were used exactly as indicated in the output plot with two exceptions. The volumes on Telegraph Canyon Road between I-805 and Heritage Road for the Year 2010 and beyond appeared unusually high as compared to parallel east/west routes East "H" Street and Olympic Parkway. While volumes on Telegraph Canyon Road were in the high 60,000's, volumes on East "H" Street and Olympic Parkway were in the 40,000's. This is not realistic since most project traffic and other eastern territories traffic is in no way, forced to use Telegraph Canyon Road. Past modeling has shown a more even distribution among the three (3) east/west facilities. Therefore about 15% of the Telegraph Canyon Road traffic was shifted to East "H" Street and Olympic Parkway. This percentage shift results in a relatively equitable distribution among the three principal east/west routes. **It should be noted that the total traffic on the corridor that includes East "H" Street, Telegraph Canyon Road and Olympic Parkway was not reduced at all. It was only reallocated.**

Similarly, the volumes on Otay Lakes Road between SR 125 and Eastlake Parkway were extremely high (in the 80,000's), while parallel volumes on East "H" Street and Olympic Parkway were in the 30,000's and 40,000's. This is not realistic since traffic will generally flow to the area of least resistance. Therefore, the ADT on Otay Lakes Road between SR 125 and Eastlake Parkway was reduced by about 25% and this traffic was shifted to East "H" Street and Olympic Parkway. This percentage shift results in a relatively equitable distribution among the three principal east/west routes. Again, the overall traffic was not reduced in any way.

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4.0 Existing Conditions

4.1 EXISTING STREET SYSTEM

The following is a brief description of the existing street system in the project area.

The City of Chula Vista Standards indicate that **Expressways** should be 104 feet wide in 128 feet of right-of-way (R/W), providing six through lanes, a 16 foot wide raised median/left-turn lane and emergency parking or bike lanes. **Prime Arterials** should be 104 feet wide in 128 feet of R/W providing six lanes, a 16-foot wide median/left-turn lane and emergency parking or bike lanes. **Six-Lane Majors** should be 104 feet wide in 128 feet of R/W providing six thru lanes and a 16 foot wide raised median/left-turn. **Four-Lane Majors** should be 80 feet wide in 104 feet of R/W, providing four through lanes, a 16-foot wide median/left-turn lane separating the two directions of traffic flow. A **Class 1 Collector** should be 74 feet wide in 94 feet of R/W, providing four through lanes and curbside parking. A **Class 2 Collector** should be 52 feet wide in 72 feet of R/W, providing two through lanes and curbside parking with a continuous two-way left lane. A **Class 3 Collector** should be 40 feet wide in 60 feet of R/W with two through lanes and curbside parking.

Figure 4 graphically shows the study area intersections that will be analyzed in this report while **Figure 5** shows the existing lane configurations for the intersections in the study area

Following are brief descriptions of the existing streets in the project area.

I-805 is a north-south freeway, which originates in South County and terminates at its connection with the I-5 Freeway. Local interchanges in the project vicinity are at Olympic Parkway, Telegraph Canyon Road, and East H Street. I-805 is generally an eight-lane freeway between I-805 and SR 54 with auxiliary lanes present between some interchanges.

Telegraph Canyon Road/Otay Lakes Road provides east-west access though the northern portions of the study area. Telegraph Canyon Road/Otay Lakes Road is classified as a Six-Lane Major west of Paseo del Rey, and as a Six-Lane Prime Arterial east of Paseo del Rey in the City of Chula Vista Circulation Plan. Today, it is generally a six-lane facility, which transitions into a Class I Collector to the east of Hunte Parkway. Bike lanes exist on both sides of the road and bus stops are located intermittently along Telegraph Canyon Road /Otay Lakes Road. On-street parking is prohibited. The posted speed limit is 40 mph from I-805 to Crest Drive/Oleander Avenue, 45 mph from Crest Drive/Oleander Avenue to Old Telegraph Canyon Road, and 50 mph from Old Telegraph Canyon Road to Hunte Parkway.

Palomar Street is classified as a Four-Lane Major Street in the City of Chula Vista Circulation Plan. Currently, it is built as a four-lane divided road. On-street parking is prohibited. The posted speed limit is 35 mph and bike lanes are provided.

Olympic Parkway is classified as a Six-Lane Prime Arterial from I-805 to Hunte Parkway, and as a Four-Lane Major east of Hunte Parkway in the City of Chula Vista Circulation Plan. Currently, it is built to its ultimate classification. On-street parking is prohibited. The posted speed limit is 45 mph. Bike Lanes are provided. The section of Olympic Parkway from La Media Road to Hunte Parkway was recently completed and is open to traffic. A raised median is provided along Olympic Parkway.

Oleander Avenue is classified as a Class II Collector in the City of Chula Vista Circulation Plan. Currently, Oleander is a two-lane undivided roadway with two lanes of travel. Bike lanes are not provided. Curbside parking is permitted. The posted speed limit is 25 mph.

Medical Center Drive is classified as a Class I Collector in the City of Chula Vista Circulation Plan and currently provides four lanes of travel. Bike lanes exist on both sides of the street and curbside parking is prohibited. The posted speed limit is 25 mph. Medical Center Drive becomes Brandywine Avenue south of E. Palomar Street.

Brandywine Avenue is classified as a Class I Collector in the City of Chula Vista Circulation Plan and currently provides four lanes of travel narrowing to two lanes with a two-way turn lane, just north of Main Street. Bike lanes exist on both sides of the street and curbside parking is generally prohibited except in the two-lane section of Brandywine Avenue. The posted speed limit is 25 mph.

Paseo Ranchero is classified as a Class I Collector in the City of Chula Vista Circulation Plan and becomes Heritage Road south of Telegraph Canyon Road. Currently, Paseo Ranchero is an undivided roadway with four lanes of travel and a center two-way turn lane. Bike lanes exist today on both sides of the road and curbside parking is prohibited. The posted speed limit is 40 mph.

Heritage Road is classified as a Six-Lane Prime Arterial in the City of Chula Vista Circulation Plan. Heritage Road currently ends at Olympic Parkway and is a six-lane prime arterial. Bike lanes exist today on both sides of the road; therefore curbside parking is prohibited. The posted speed limit is 40 mph.

La Media Road is classified as a Six-Lane Prime Arterial in the City of Chula Vista Circulation Plan. Currently, La Media Road terminates south of Olympic Parkway at Santa Venetia. Six lanes of travel with a raised median are currently provided. Bike lanes exist today on both sides of the road; therefore curbside parking is prohibited. The posted speed limit is 40 mph.

Eastlake Parkway is classified as a Four-Lane Major Street in the City of Chula Vista Circulation Plan, between north of Otay Lakes Road to South of SDG&E easement and as a Six-Lane Major Road south of the SDG&E easement in Eastlake Greens. Currently, it provides four lanes (two lanes in each direction) south of Otay Lakes Road and transitions to a six-lane divided facility south of Clubhouse Drive. Eastlake Parkway currently terminates at Olympic Parkway. Bike lanes exist on either side of the road and curbside parking is prohibited.

Hunte Parkway is classified as a Four-Lane Major Arterial from Otay Lakes Road to Olympic Parkway in the City of Chula Vista Circulation Plan. Currently, it extends south of Otay Lakes Road to Olympic Parkway as a Four-Lane Major Street arterial with a posted speed limit of 45 mph. Bike lanes exist on either side of the road and curbside parking is prohibited. This facility connects to Olympic Parkway to the south. Construction of Hunte Parkway as a 6-lane Prime Arterial from Olympic Parkway to Eastlake Parkway is proposed.

4.2 EXISTING TRAFFIC VOLUMES

4.2.1 PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Peak hour intersection turning movement volumes were conducted in July and September 2003 at the following existing study area intersections. Peak hour data for intersections along Main Street, from previous traffic studies was also used. **Appendix II** shows the existing peak hour traffic volumes.

- Telegraph Canyon Road/I-805 SB Ramps
- Telegraph Canyon Road/I-805 NB Ramps
- Telegraph Canyon Road/Oleander Avenue
- Telegraph Canyon Road/Medical Center Drive
- Telegraph Canyon Road/Paseo Ranchero/Heritage Road
- Telegraph Canyon Road/Otay Lakes Road/La Media Road
- Otay Lakes Road/Eastlake Parkway
- Otay Lakes Road/Hunte Parkway
- Palomar Street/Oleander Avenue
- Palomar Street/Brandywine Avenue

- Palomar Street/Heritage Road
- Palomar Street/La Media Road
- Olympic Parkway/I-805 SB Ramps
- Olympic Parkway/I-805 NB Ramps
- Olympic Parkway/Oleander Avenue
- Olympic Parkway/Brandywine Avenue
- Olympic Parkway/Heritage Road
- Olympic Parkway/La Media Road
- Olympic Parkway/Palomar Street
- Olympic Parkway/Eastlake Parkway
- Olympic Parkway/Hunte Parkway
- Main Street/I-805 SB Ramps
- Main Street/I-805 NB Ramps
- Main Street/Oleander Avenue
- Main Street/Brandywine Avenue

Figure 6 depicts the existing AM and PM peak hour intersection turning movement volumes at the above intersections.

4.2.2 DAILY SEGMENT VOLUMES

Existing Average Daily Traffic (ADT) volumes were obtained from the City of Chula Vista where available. If Year 2000 or later ADT volumes were not available, the ADT was calculated from the peak hour intersection turning movement counts assuming the PM peak hour traffic comprises 10 percent of the daily traffic for some segments. **Table 2** shows the existing ADT volumes and **Figure 7** depicts the existing ADT volumes. Appendix II also contains the existing segment ADT volume count summaries.

5.0 Analysis Approach and Methodology

5.1 ANALYSIS APPROACH

This traffic analysis assesses the key intersections, street segments, freeways, and City Traffic Monitoring Program arterials in the project area. All of these facilities are analyzed under several future analysis timeframes to determine the project impacts on the prevailing street network during each timeframe.

5.2 ANALYSIS METHODOLOGY

There are different methodologies used to analyze signalized intersections, unsignalized intersections, street segments, freeways, and arterials, as described below.

The measure of effectiveness for intersection operations is level of service. In the 2000 Highway Capacity Manual (HCM), Level of Service for signalized intersections is defined in terms of delay. The level of service analysis results in seconds of delay expressed in terms of letters A through F. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

5.2.1 SIGNALIZED INTERSECTIONS

For signalized intersections, level of service criteria are stated in terms of the average control delay per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 3** summarizes the delay thresholds for signalized intersections, while **Table 4** summarizes the signalized intersections levels of service descriptions.

Level of service A describes operations with very low delay, (i.e. less than 10.0 seconds per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level of service B describes operations with delay in the range 10.1 seconds and 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of Average delay.

Level of service C describes operations with delay in the range 20.1 seconds and 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

Level of service D describes operations with delay in the range 35.1 seconds and 55.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or higher v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are more frequent.

Level of service E describes operations with delay in the range of 55.1 seconds to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level of service F describes operations with delay in excess of over 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

5.2.2 UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, level of service is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. **Table 5** depicts the criteria, which are based on the Average control delay for any particular minor movement. **Table 6** summarizes the segment levels of service descriptions.

Level of Service F exists when there are insufficient gaps of suitable size to allow a side street demand to safely cross through a major street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches. The method, however, is based on a constant critical gap size; that is, the critical gap remains constant no matter how long the side-street motorist waits.

LOS F may also appear in the form of side-street vehicles selecting smaller-than-usual gaps. In such cases, safety may be a problem, and some disruption to the major traffic stream may result. It

is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior, which are more difficult to observe in the field than queuing.

5.2.3 STREET SEGMENTS

The street segments were analyzed on a daily basis by comparing the daily traffic volume (ADT) to the Chula Vista Standard Street Classification Table. This table is shown in **Appendix III** and provides Level of Service estimates based on traffic volumes and roadway characteristics.

5.2.4 GROWTH MANAGEMENT OVERSIGHT COMMITTEE (GMOC) ANALYSIS

Analysis of roadway segments under near-term conditions (Years 0-4) is conducted using the methodology described in Chapter 11 (Arterial Streets) of the most recent version of the Highway Capacity Manual, which determines segment level of service based on speed. Classification of facilities and definition of segment lengths should be consistent with the City's current Growth Management Traffic Monitoring Program. The Threshold Standard for these arterial analyses requires the maintaining of LOS 'C' or better as measured by average travel speeds except that LOS 'D' can occur for no more than any two hours of the day. Thus, if LOS 'D' condition is determined for any period of two (2) hours, additional analysis may be required along these high volume segments based on direction provided by the City Engineer.

For planned arterial facilities that are not currently included in the current Traffic Monitoring Program, the definition of segment length and facility classification will be based on direction provided by the City Engineer.

A near-term analysis of Telegraph Canyon Road arterial segments was conducted based on the City of Chula Vista's GMOC Traffic Monitoring Program (TMP) methodology. Only these arterial segments were analyzed because the City of Chula Vista's significance criteria dictates that if planning analysis (v/c) indicates LOS D, E or F, the GMOC method shall be utilized in the short-term (0-4 year horizon). No studies were done on Olympic Parkway since a major portion of Olympic Parkway has just been constructed and no historical data is available.

An analysis was performed to calculate the decrease in travel speed due to the addition of project traffic on Telegraph Canyon Road. The decrease in travel speeds due to the project was calculated using linear regression. By utilizing linear regression, a formula can be derived that can describe the dependence of one variable on another. For example, as the volume increases on a TMP segment, the average travel speed and LOS will decrease. Using the TMP speed data as one variable and ADT as the other variable, linear regression equations were calculated for

each TMP segment. Roadways can be classified as Class I, II or III depending on their functional and design features as outlined in Chapter 11 of the HCM.

The results of the GMOC analysis are described in a subsequent section of this report.

TELEGRAPH CANYON ROAD (CLASS II) EXISTING TMP SPEEDS AND LOS CONDITIONS

TIME AND DIRECTION	I-805 TO PASEO RANCHERO		PASEO RANCHERO TO OTAY LAKES ROAD	
	SPEED	LOS	SPEED	LOS
AM Westbound	29.4	B	40.4	A
PM Eastbound	28.7	B	36.0	A

Source: City of Chula Vista TMP Data, 2004.

5.2.5 FREEWAY SEGMENTS

Levels of Service analysis for freeway segments is based on the procedure developed by CALTRANS District 11. The procedure involves comparing the peak hour volume of the mainline segment to the theoretical capacity of the roadway (V/C). Directional and truck factors are also used to calculate the future freeway volumes. V/C ratios were then compared to the V/C ranges shown on the tables to determine the LOS for each segment.

6.0 Existing Operations

6.1 PEAK HOUR INTERSECTION LEVELS OF SERVICE

Table 7 summarizes the existing AM and PM peak hour intersection analysis results at the key existing intersections. As seen in Table 7, all signalized intersections are calculated to currently operate at LOS D or better except the following:

- Telegraph Canyon Road/I-805 SB Ramps (LOS E in the PM peak hour)
- Olympic Parkway/I-805 SB Ramps (LOS E in the PM peak hour)
- Olympic Parkway/I-805 NB Ramps (LOS E in the AM peak hour)

Appendix IV contains the existing peak hour analysis work sheets.

6.2 DAILY SEGMENT LEVELS OF SERVICE

Table 8 summarizes the daily segment levels of service on key segments. As seen in Table 8, the following segments are calculated to currently operate at LOS D or worse:

- **TELEGRAPH CANYON ROAD**
  - I-805 to Oleander Avenue (LOS F)
  - Oleander Avenue to Medical Center Drive (LOS E)
  - Paseo Ranchero to Otay Lakes Road (LOS D)

Currently, the City is in the process of widening Telegraph Canyon Road between the Canyon Plaza Entrance and I-805 northbound ramps to provide 4 westbound lanes. Widening of Olympic Parkway at I-805 to provide two through lanes in both directions across I-805 are in advanced stages of planning. The improved geometry at the I-805/Telegraph Canyon Road northbound Ramps and the I-805/Olympic Parkway northbound and southbound ramps are shown later on in this report in Figure 48. The analyses of the above segments of Telegraph Canyon Road and Olympic Road for the future analysis timeframes assume the enhanced capacity.

6.3 FREEWAY MAINLINE

Table 9 summarizes the freeway mainline operations on I-805. As seen in Table 9, all study area freeway mainline segments are calculated to currently operate at LOS D or better in both northbound and southbound directions in the AM and PM peak hours except the section of southbound I-805 between Telegraph Canyon Road and East "H" Street which is calculated to operate at LOS E in the PM peak hour.

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7.0 Future Traffic Volume Determination

It was necessary to estimate future traffic volumes for several study years in order to determine if the planned circulation system could accommodate these volumes. As previously discussed, the SANDAG Series 10 City/County Forecast Traffic Model was used to estimate these volumes. The traffic model outputs freeway and street segment ADTs. These ADTs were utilized directly as output by the model, except at the two locations previously discussed (Section 3.4).

Figures 8 - 17 show the forecasted future volumes, including traffic generated from the proposed project, for the ten (10) study scenarios.

It was also necessary to estimate peak hour intersection volumes. The SANDAG model outputs peak hour volumes. However, the SANDAG model output is not considered accurate in determining peak hour intersection turn movements. Therefore, peak hour turning movement volumes were estimated using a template in EXCEL developed by LLG to determine peak hour traffic at an intersection from future ADTs using the relationship between existing peak hour turn movements and the existing ADTs. This same relationship can be assumed to generally continue in the future without SR 125. This relationship will likely change once SR 125 is built. For example, if the segment ADT on the roadway is forecast to double by the Year 2010, it is reasonable to assume that the peak hour intersection turn movement volumes will generally double. The construction of SR 125 was taken into account in determining the peak hour intersection volumes.

For intersections that do not exist, a peak hour percentage of 8 to 10 percent was generally assumed. Directionality was dependent on proximity of each intersection to a freeway.

8.0 Project Trip Generation

Table 10, summarizes the trip generation for the project. SANDAG trip generation rates were utilized to determine the amount of traffic the project will generate.

8.1 PROPOSED PROJECT

As seen in Table 10, the project is calculated to generate a total of 25,079 daily trips, 3,133 trips (1,629 inbound and 1,504 outbound trips) in the AM peak hour and 2,482 trips (1,442 inbound and 1,039 outbound trips) in the PM peak hour.

8.2 INTERNAL TRIPS/NET TRIPS

The total internal and net ADT and peak hour trips generated for the proposed project are shown in **Table 11**. The base assumption to determine internal trips was that 15% of the residential trips would be internal. As seen in Table 11, the project is calculated to add 20,845 ADT with 2,795 trips in the AM peak hour and 2,058 trips in the PM peak hour to the external street system.

8.3 PROJECT PHASING

Based on information obtained from the City of Chula Vista, a project phasing table was prepared for the proposed project (**Table 12**). This project phasing corresponds to the project land uses assumed in the modeling inputs for the various analysis scenarios.

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9.0 Project Traffic Distribution/Assignment

Select Zone Assignments for the project Traffic Analysis Zones (TAZ) 4329, 4361 and 4381 were obtained from SANDAG for the Years 2005, 2010, 2015, 2030 and regional buildout. Based on these assignments, regional project traffic distribution was developed for each analysis scenario.

Figures 18, through **22** depict the regional distribution percentages for the Years 2005 2010, 2015, 2030 and buildout conditions. Based on the distribution percentages on Figures 18 through 22, the project ADT volumes were distributed and assigned to the study area segments for each analysis scenario. **Figures 23** through **32** depict the project only ADT volumes on the study area segments for the ten (10) future analysis timeframes.

The total project traffic was distributed based on the Year 2005 distribution percentages for the existing + project condition. **Figure 33** depicts the (total) project only peak hour intersection turning movement volumes while **Figure 34** depicts the ADT volumes on the study area segments for the total project. **Figures 35** and **36** depict the peak hour intersection turning movement volumes and ADT volumes in the study area for the existing + project condition.

10.0 Significance Criteria

Traffic impacts will be defined as either *project specific impacts* or *cumulative impacts*. *Project specific impacts* are those impacts for which the addition of project trips result in an identifiable degradation in level of service on freeway segments, roadway segments, or intersections, triggering the need for specific project-related improvement strategies. *Cumulative impacts* are those in which the project trips contribute to a poor level of service, at a nominal level.

Study horizon year as used herein is intended to describe a future period of time in the traffic studies, which corresponds to SANDAG's traffic model years, and are meant to synchronize study impacts to be in line with typical study years of 2005, 2010, 2015 and 2030.

Criteria for determining whether the project results in either project specific or cumulative impacts on freeway segments, roadway segments, or intersections are as follows:

10.1 SHORT-TERM (STUDY HORIZON YEAR 0 TO 4)

For purposes of the short-term analysis roadway sections may be defined as either links or segments. A link is typically that section of roadway between two adjacent Circulation Element intersections and a segment is defined as that combination of contiguous links used in the Growth Management Plan Traffic Monitoring Program. Analysis of roadway links under short-term conditions may require a more detailed analysis using the Growth Management Oversight Committee (GMOC) methodology if the typical planning analysis using volume to capacity ratios on an individual link indicates a potential impact to that link. The GMOC analysis uses the Highway Capacity Manual (HCM) methodology of average travel speed based on actual measurements on the segments as listed in the Growth Management Plan Traffic Monitoring Program.

10.1.1 INTERSECTIONS

a. Project specific impact if both the following criteria are met:
   i. Level of service is LOS E or LOS F.
   ii. Project trips comprise 5% or more of entering volume.
b. Cumulative impact if only (i) is met.

10.1.2 STREET LINKS/SEGMENTS

If the planning analysis using the volume to capacity ratio indicates LOS C or better, there is no impact. If the planning analysis indicates LOS D, E or F, the GMOC method should be utilized. The following criteria would then be utilized.

a. Project specific impact if all the following criteria are met:
   i. Level of service is LOS D for more than 2 hours or LOS E/F for 1 hour
   ii. Project trips comprise 5% or more of segment volume.
   iii. Project adds greater than 800 ADT to the segment.
b. Cumulative impact if only (i) is met.

10.1.3 FREEWAYS

a. Project specific impact if all the following criteria are met:
   i. Freeway segment LOS is LOS E or LOS F
   ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.
b. Cumulative impact if only (i) is met.

10.2 LONG-TERM (STUDY HORIZON YEAR 5 AND LATER)

10.2.1 INTERSECTIONS

a. Project specific impact if all the following criteria are met:
   i. Level of service is LOS E or LOS F.
   ii. Project trips comprise 5% or more of entering volume.
b. Cumulative impact if only (i) is met.

10.2.2 STREET LINKS/SEGMENTS

Use the planning analysis using the volume to capacity ratio methodology only. The GMOC analysis methodology is not applicable beyond a four-year horizon.

a. Project specific impact if all the following criteria are met:
   i. Level of service is LOS D, LOS E, or LOS F.

ii. Project trips comprise 5% or more of total segment volume.

iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only (i) is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment Level of Service is LOS F, impact is significant regardless of intersection LOS.

c. Notwithstanding the foregoing, if the impact identified in paragraph a. above occurs at study horizon year 10 or later, and is offsite and not adjacent to the project, the impact is considered cumulative. Study year 10 may be that typical SANDAG model year which is between 8 and 13 years in the future. In this case of a traffic study being performed in the period of 2003 to 2004, because the typical model will only evaluate traffic at years divisible by 5 (i.e. 2005, 2010, 2015 and 2020). Year 2010 is only 6 years in the future. Since the model year is less than 7 years in the future, study horizon year 10 (Year 2015) is 11 years in the future.

d. In the event a direct identified project specific impact in paragraph a. above occurs at study horizon year 5 or earlier and the impact is offsite and not adjacent to this project, but the property immediately adjacent to the identified project specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified project specific impact would still occur if the development of the adjacent property does not take place. If the additional analysis concludes that the identified project specific impact is no longer a direct impact, then the impact shall be considered cumulative.

10.2.3 FREEWAY ANALYSIS

a. Project specific impact if all the following criteria are met:

   i. Freeway segment LOS is LOS E or LOS F

   ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) is met.

11.0 Future Conditions Analysis

11.1 EXISTING + PROJECT ANALYSIS WITH ENTIRE PROJECT

For this condition, it is assumed that the total project is completed with only the existing roadway network to serve it. However, since the project access is planned mainly on future roadways, the following assumptions are made:

- La Media Road is built between Olympic Boulevard and Birch Road.
- Magdelena Avenue is built from Birch Road to the school site, providing access to the school.
- Birch Road is built between La Media Road and Eastlake Parkway.

Based on the above assumptions, the entire project traffic was assigned to the existing intersections and segments as described in Section 9.0, and added to the existing traffic to obtain the existing + project traffic volumes. These volumes were analyzed to determined the existing + project intersection and segment operations.

For CEQA purposes, an analysis was conducted to determine the theoretical impacts assuming the entire project is constructed with only the existing roadway network and the three assumptions identified above, to serve it (i.e. no SR 125). **Tables 13** and **14** show that several intersections and segments are calculated to operate at LOS E and F for the existing + entire project scenario without SR 125.

11.1.1 PEAK HOUR INTERSECTION ANALYSIS

Table 13 summarizes the existing + project peak hour intersection operations. As seen in Table 13, most of the existing intersections are calculated to continue to operate at LOS D or better conditions except the following:

- Telegraph Canyon Road/I-805 southbound Ramps (LOS F during the PM peak hour)
- Olympic Parkway/I-805 southbound Ramps (LOS F during the PM peak hour)
- Olympic Parkway/I-805 northbound Ramps (LOS F during the AM peak hour and LOS E during the PM peak hour)
- Magdelena Avenue/Birch Road (LOS F during the AM peak hour and LOS E during the PM peak hour)

Appendix V contains the existing + project peak hour analysis work sheets.

11.1.2 DAILY SEGMENT ANALYSIS

Table 14 summarizes the existing + project peak hour segment operations. As seen in Table 14, most of the existing segments are calculated to continue to operate at LOS C or better conditions except the following, which are calculated to continue to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS F)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS E)
- Telegraph Canyon Road from Paseo Ranchero/Heritage Rd. to Otay Lakes Rd. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS D)

11.1.3 FREEWAY ANALYSIS

Table 15 summarizes the freeway mainline operations for the existing + project condition. As seen in Table 15, with the addition of project traffic, all freeway segments along I-805 in the project vicinity are calculated to continue to operate at LOS D or better during the AM and PM peak hours except the section of southbound I-805 between Telegraph Canyon Road and East "H" Street which is calculated to continue to operate at LOS E in the PM peak hour as for existing conditions.

11.1.4 PARTIAL VILLAGE 7 PROJECT

The Village 7 area is owned by multiple owners. Currently, plans have been proposed for only two of the parcels owned by two separate owners. **Figure 36A** depicts the Partial Village 7 Development. **Table 15A** summarizes the land uses and the trip generation for this partial development (Partial Project). As seen in Table 15A, the proposed Partial Project is calculated to generate 18,165 ADT with 2,396 trips (1,258 inbound and 1,138 outbound) trips in the AM peak hour and 1,804 trips (1,056 inbound and 748 outbound) trips in the PM peak hour.

The project analyzed in this report (Proposed Project) is calculated to generate 25,079 ADT with 3,133 trips (1,629 inbound and 1,504 outbound) trips in the AM peak hour and 2,482 trips (1,442 inbound and 1,039 outbound) trips in the PM peak hour.

Hence the Proposed Project generates a higher amount of traffic than the Partial Project. No additional analysis is necessary since the existing + project analysis in this report addresses the worst case and the Partial Project will have lesser impacts than the Proposed Project.

11.2 SCENARIO 1 - OPENING YEAR WITHOUT SR 125

As described in Section 6.0, Existing Operations, the City is currently widening Telegraph Canyon Road between the Canyon Plaza Entrance and I-805 northbound ramps to provide 4 westbound lanes. Widening of Olympic Parkway at I-805 to provide two through lanes in both directions across I-805 are in advanced stages of planning. The improved geometry at the I-805/Telegraph Canyon Road northbound Ramps and the I-805/Olympic Parkway northbound and southbound ramps are shown later on in this report in Figure 48. The analyses of the above segments of Telegraph Canyon Road and Olympic Road for the future analysis timeframes assume the enhanced capacity.

11.2.1 PEAK HOUR INTERSECTION ANALYSIS

Table 16 summarizes the peak hour intersection operations for Scenarios 1 through 5. As seen in Table 16, all study area intersections are calculated to operate at LOS D or better for the Scenario 1 condition except the following:

- Telegraph Canyon Road/I-805 southbound Ramps (LOS E during the PM peak hour)

Appendix VI contains the Scenario 1 peak hour analysis work sheets.

11.2.2 DAILY SEGMENT ANALYSIS

Table 17 summarizes the segment operations for Scenarios 1 through 5. As seen in Table 17, all study area segments are calculated to operate at LOS C or better for the Scenario 1 condition except the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS F)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS D)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)
- Telegraph Canyon Road from Paseo Ranchero/Heritage Rd. to Otay Lakes Rd. (LOS D)
- Otay Lakes Road from North of Telegraph Canyon Rd. (LOS D)
- Otay Lakes Road from La Media Rd. to SR 125 (LOS E)

11.2.3 NEAR-TERM GMOC ANALYSIS

A GMOC analysis of Telegraph Canyon Road and Otay Lakes Road, which operate at LOS D or worse, was conducted for Scenario 1 conditions. The GMOC analysis is summarized in **Table 17A**. The analysis shows that LOS C or better operations are calculated along each segment on a GMOC basis other than Telegraph Canyon Road between I-805 and Oleander Avenue and on Otay Lakes Road between La Media Road and north of Telegraph Canyon Road during the AM peak hour. Therefore, significant street segment impacts are not calculated on any of the street segments listed above other than on Telegraph Canyon Road between I-805 and Oleander Avenue and on Otay Lakes Road between La Media Road and north of Telegraph Canyon Road during the AM peak hour. More than 2 hours of LOS D condition is expected on these segments.

11.3 SCENARIO 2 - YEAR 2010

Figure 37 depicts the assumed intersection geometry for the Year 2010 and beyond.

11.3.1 PEAK HOUR INTERSECTION ANALYSIS

Table 16 summarizes the peak hour intersection operations for Scenarios 1 through 5. As seen in Table 16, all study area intersections are calculated to operate at LOS D or better for the Scenario 2 condition.

Appendix VII contains the Scenario 2 peak hour analysis work sheets.

11.3.2 DAILY SEGMENT ANALYSIS

Table 17 summarizes the segment operations for Scenarios 1 through 5. As seen in Table 17, all study area segments are calculated to operate at LOS C or better for the Scenario 2 condition except the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS D)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS D)
- Olympic Parkway from SR 125 to Eastlake Pkwy. (LOS D)

11.4 SCENARIO 3 - YEAR 2015

11.4.1 PEAK HOUR INTERSECTION ANALYSIS

Table 16 summarizes the peak hour intersection operations for Scenarios 1 through 6. As seen in Table 16, all study area intersections are calculated to operate at LOS D or better for the Scenario 3 condition.

Appendix VIII contains the Scenario 3 peak hour analysis work sheets.

11.4.2 DAILY SEGMENT ANALYSIS

Table 17 summarizes the segment operations for Scenarios 1 through 5. As seen in Table 17, all study area segments are calculated to operate at LOS C or better for the Scenario 3 condition except for the following:

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS E)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Road (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS E)
- Olympic Parkway from Medical Center Dr. to Heritage Rd. (LOS D)
- Olympic Parkway from SR 125 to Eastlake Pkwy. (LOS D)
- Rock Mountain Road from La Media Road to SR 125 (LOS D)
- Rock Mountain Road from SR 125 to Eastlake Parkway (LOS F)

11.5 SCENARIO 4 - YEAR 2030

11.5.1 PEAK HOUR INTERSECTION ANALYSIS

Table 16 summarizes the peak hour intersection operations for Scenarios 1 through 5. As seen in Table 16, all study area intersections are calculated to operate at LOS D or better for the Scenario 4 condition.

Appendix IX contains the Scenario 4 peak hour analysis work sheets.

11.5.2 DAILY SEGMENT ANALYSIS

Table 17 summarizes the segment operations for Scenarios 1 through 5. As seen in Table 17, all study area segments are calculated to operate at LOS C or better for the Scenario 4 condition, except the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS D)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)
- Otay Lakes Road from Eastlake Pkwy. to Lane Ave. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS D)
- Olympic Parkway from Heritage Rd. to La Media Rd. (LOS D)
- Rock Mountain Road from SR 125 to Eastlake Parkway (LOS F)

11.6 SCENARIO 5 – BUILDOUT

11.6.1 PEAK HOUR INTERSECTION ANALYSIS

Table 16 summarizes the peak hour intersection operations for Scenarios 1 through 5. As seen in Table 16, all study area intersections are calculated to operate at LOS D or better for the Scenario 5 condition.

Appendix X contains the Scenario 5 peak hour analysis work sheets.

11.6.2 DAILY SEGMENT ANALYSIS

Table 17 summarizes the segment operations for Scenarios 1 through 5. As seen in Table 17, all study area segments are calculated to operate at LOS C or better for the Scenario 5 condition except for the following, which are calculated to operate at LOS D or worse.

- Otay Lakes Road from SR 125 to Eastlake Parkway (LOS E).
- Otay Lakes Road from Eastlake Parkway to Lane Avenue (LOS E).
- Olympic Parkway from SR 125 to Eastlake Pkwy. (LOS D)
- Rock Mountain Road from SR 125 to Eastlake Parkway (LOS F)

11.7 SCENARIO 6 - OPENING YEAR WITHOUT SR 125

11.7.1 PEAK HOUR INTERSECTION ANALYSIS

Table 18 summarizes the peak hour intersection operations for Scenarios 6 through 10. As seen in Table 10, all study area intersections are calculated to operate at LOS D or better for the Scenario 6 condition except the following"

- Telegraph Canyon Road/I-805 southbound ramps (LOS E during the PM peak hour)

Appendix XI contains the Scenario 6 peak hour analysis work sheets.

11.7.2 DAILY SEGMENT ANALYSIS

Table 19 summarizes the segment operations for Scenarios 6 through 10. As seen in Table 19, all study area segments are calculated to operate at LOS C or better for the Scenario 6 condition except for the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS F)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS D)
- Telegraph Canyon Road from Paseo Ranchero to Otay Lakes Road (LOS D)
- Otay Lakes Road from North of Telegraph Canyon Rd. (LOS D)

11.7.3 NEAR-TERM GMOC ANALYSIS

A near-term GMOC analysis of Telegraph Canyon Road and Otay Lakes Road, which operate at LOS D or worse, was conducted for Scenario 6 Conditions. The GMOC analysis is summarized in Table 17A. The analysis shows that LOS C or better operations are calculated along each segment on a GMOC basis other than Telegraph Canyon Road between I-805 and Oleander Avenue and on Otay Lakes Road, north of Telegraph Canyon Road during the AM peak hour. Therefore, significant street segment impacts are <u>not</u> calculated on any of the street segments listed above other than on Telegraph Canyon Road between I-805 and Oleander Avenue and on Otay Lakes Road, north of Telegraph Canyon Road during the AM peak hour. More than 2 hours of LOS D condition is expected on these segments.

11.8 SCENARIO 7 - YEAR 2010

11.8.1 PEAK HOUR INTERSECTION ANALYSIS

Table 18 summarizes the peak hour intersection operations for Scenarios 6 through 10. As seen in Table 18, all study area intersections are calculated to operate at LOS D or better for the Scenario 7 condition.

Appendix XII contains the Scenario 7 peak hour analysis work sheets.

11.8.2 DAILY SEGMENT ANALYSIS

Table 19 summarizes the segment operations for Scenarios 6 through 10. As seen in Table 19, all study area segments are calculated to operate at LOS C or better for the Scenario 7 condition except for the following, which are calculated to operate at LOS D or worse:

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS E)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS E)
- Olympic Parkway from Medical Center Dr. to Heritage Rd. (LOS D)
- Olympic Parkway from SR 125 to Eastlake Pkwy. (LOS D)

11.9 SCENARIO 8 - YEAR 2015

11.9.1 PEAK HOUR INTERSECTION ANALYSIS

Table 18 summarizes the peak hour intersection operations for Scenarios 6 through 10. As seen in Table 18, all study area intersections are calculated to operate at LOS D or better for the Scenario 8 condition.

Appendix XIII contains the Scenario 8 peak hour analysis work sheets.

11.9.2 DAILY SEGMENT ANALYSIS

Table 19 summarizes the segment operations for Scenarios 6 through 10. As seen in Table 19, all study area segments are calculated to operate at LOS C or better for the Scenario 8 condition except for the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS D)
- Rock Mountain Road from Main Street to La Media Road (LOS F)
- Rock Mountain Road from La Media Road to SR 125 (LOS F)
- Rock Mountain Road from SR 125 to Eastlake Pkwy. (LOS F)

11.10 SCENARIO 9 - YEAR 2030

11.10.1 PEAK HOUR INTERSECTION ANALYSIS

Table 18 summarizes the peak hour intersection operations for Scenarios 6 through 10. As seen in Table 18, all study area intersections are calculated to operate at LOS D or better for the Scenario 9 condition except for the following:

- Rock Mountain Road/La Media Road (LOS E in the AM peak hour and LOS F in the PM peak hour)

Appendix XIV contains the Scenario 9 peak hour analysis work sheets.

11.10.2 DAILY SEGMENT ANALYSIS

Table 19 summarizes the segment operations for Scenarios 6 through 10. As seen in Table 19, all study area segments are calculated to operate at LOS C or better for the Scenario 9 condition except for the following, which are calculated to operate at LOS D or worse.

- Telegraph Canyon Road from I-805 to Oleander Ave. (LOS E)
- Telegraph Canyon Road from Oleander Ave. to Medical Center Dr. (LOS E)
- Otay Lakes Road from Eastlake Pkwy. to Lane Ave. (LOS D)
- Olympic Parkway from I-805 to Medical Center Dr. (LOS D)
- Rock Mountain Road from Main Street to La Media Road (LOS F)

- Rock Mountain Road from La Media Road to SR 125 (LOS F)
- Rock Mountain Road from SR 125 to Eastlake Pkwy. (LOS F)
- Oleander Avenue from Telegraph Canyon Rd. to Palomar St. (LOS D)

11.11 SCENARIO 10 - BUILDOUT

11.11.1 PEAK HOUR INTERSECTION ANALYSIS

Figure 37A depicts the Scenario 10 buildout peak hour intersection turning movement volumes. Table 18 summarizes the peak hour intersection operations for Scenarios 6 through 10. As seen in Table 18, all study area intersections are calculated to operate at LOS D or better for the Scenario 10 condition except for the following:

- Rock Mountain Road/La Media Road (LOS E in the AM peak hour and LOS F in the PM peak hour)
- Rock Mountain Road/SR 125 SB Ramps (LOS F in the PM peak hour)
- Rock Mountain Road/SR 125 NB Ramps (LOS F in the AM peak hour and LOS E in the PM peak hour)

Appendix XV contains the Scenario 10 peak hour analysis work sheets.

11.11.2 DAILY SEGMENT ANALYSIS

Table 19 summarizes the segment operations for Scenarios 6 through 10. As seen in Table 19, all study area segments are calculated to operate at LOS C or better for the Scenario 10 condition except for the following, which are calculated to operate at LOS D or worse.

- Otay Lakes Road from SR 125 to Eastlake Pkwy. (LOS D)
- Otay Lakes Road from Eastlake Pkwy. to Lane Ave. (LOS E)
- Olympic Parkway from SR 125 to Eastlake Pkwy. (LOS D)
- Rock Mountain Road from Main Street to La Media Road (LOS F)
- Rock Mountain Road from La Media Road to SR 125 (LOS F)
- Rock Mountain Road from SR 125 to Eastlake Pkwy. (LOS F)

12.0 Freeway Analysis

Table 20 summarizes the freeway mainline operations for scenarios 1 through 10.

12.1 SCENARIO 1 - OPENING YEAR WITHOUT SR 125

As seen in Table 20, for Scenario 1, all segments of Interstate 805 (I-805) between East "H" Street and Palm Avenue are calculated to operate at LOS D or better in both directions during the AM and PM peak hours except one. The segment of I-805 from East "H" Street to Telegraph Canyon Road is calculated to operate at LOS E in the southbound direction during the PM peak hour.

12.2 SCENARIO 2 - YEAR 2010

As seen in Table 20, for Scenario 2, segments of I-805 and SR 125 were analyzed. All segments of I-805 between East "H" Street and Palm Avenue are calculated to continue to operate at LOS D or better in both directions during the AM and PM peak hours except one. The segment of I-805 from East "H" Street to Telegraph Canyon Road is calculated to operate at LOS E in the southbound direction during the PM peak hour.

As seen in Table 20, for Scenario 2, all segments of SR 125 from East "H" Street to south of Main Street are calculated to operate at LOS A.

12.3 SCENARIO 3 - YEAR 2015

As seen in Table 20, for Scenario 3, segments of I-805 and SR 125 were analyzed. All segments of I-805 between East "H" Street and Palm Avenue are calculated to continue to operate at LOS D or better in both directions during the AM and PM peak hours except the following, which are calculated to deteriorate:

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS E during the AM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS F (0) during the PM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the PM peak hour)

As seen in Table 20, for Scenario 3, all segments of SR 125 from East "H" Street to south of Main Street are calculated to continue to operate at LOS A.

12.4 SCENARIO 4 - YEAR 2030

As seen in Table 20, for Scenario 4, the following segments of I-805 are calculated to deteriorate to LOS E or LOS F. The remaining segments are calculated to operate at LOS D or better.

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS F (0) during the AM peak hour and LOS E during the PM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS F (0) during the AM and PM peak hours)
- Southbound I-805 from Telegraph Canyon Road to Olympic Parkway (LOS E during the PM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)

As seen in Table 20, for Scenario 4, all segments of SR 125 from East "H" Street to south of Main Street are calculated to continue to operate at LOS A except the segment between East "H" Street and Telegraph Canyon Road, which is calculated to operate at LOS B.

12.5 SCENARIO 5 – BUILDOUT

As seen in Table 20, for Scenario 5, the following segments of I-805 are calculated to continue to operate at LOS E or LOS F as for Scenario 5. The remaining segments are calculated to continue to operate at LOS D or better.

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS F (0) during the AM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)

As seen above, operations along some segments are calculated to improve over that for Scenario 4. This may be due to the removal of toll on SR 125, which results in the reduction of traffic on the northern two segments of I-805.

As seen in Table 20, for Scenario 5, with the removal of toll on SR 125, the traffic on SR 125 increases. All segments of SR 125 from East "H" Street to south of Main Street are calculated to operate at LOS C or better except one. The southbound segment between East "H" Street and Otay Lakes Road is calculated to operate at LOS E in the PM peak hour.

12.6 SCENARIO 6 - OPENING YEAR WITHOUT SR 125 ANALYSIS

As seen in Table 20, for Scenario 6, all segments of Interstate 805 (I-805) between East "H" Street and Palm Avenue are calculated to operate at LOS D or better in both directions during the AM and PM peak hours except one. The segment of I-805 from East "H" Street to Telegraph Canyon Road is calculated to operate at LOS E in the southbound direction during the PM peak hour.

12.7 SCENARIO 7 - YEAR 2010

As seen in Table 20, for Scenario 7, segments of I-805 and SR 125 were analyzed. All segments of I-805 between East "H" Street and Palm Avenue are calculated to continue to operate at LOS D or better in both directions during the AM and PM peak hours except the following:

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS E during the AM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS E during the PM peak hour)

As seen in Table 20, for Scenario 8, all segments of SR 125 from East "H" Street to south of Main Street are calculated to operate at LOS A.

12.8 SCENARIO 8 - YEAR 2015

As seen in Table 20, for Scenario 8, segments of I-805 and SR 125 were analyzed. All segments of I-805 between East "H" Street and Palm Avenue are calculated to continue to operate at LOS D or better in both directions during the AM and PM peak hours except the following, which are calculated to deteriorate:

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS E during the AM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS F (0) during the PM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the PM peak hour)

As seen in Table 20, for Scenario 9, all segments of SR 125 from East "H" Street to south of Main Street are calculated to continue to operate at LOS A.

12.9 SCENARIO 9 - YEAR 2030 – PROPOSED PROJECT

As seen in Table 20, for Scenario 9, the following segments of I-805 are calculated to deteriorate to LOS E or LOS F. The remaining segments are calculated to operate at LOS D or better.

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS F (0) during the AM peak hour and LOS E during the PM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)
- Northbound I-805 from Olympic Parkway to Telegraph Canyon Road (LOS E during the AM peak hour)
- Southbound I-805 from Telegraph Canyon Road to Olympic Parkway (LOS E during the PM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)

As seen in Table 20, for Scenario 9, all segments of SR 125 from East "H" Street to south of Main Street are calculated to continue to operate at LOS A except the segment between East "H" Street and Telegraph Canyon Road, which is calculated to operate at LOS B.

12.10 SCENARIO 10 – BUILDOUT

As seen in Table 20, for Scenario 10, the following segments of I-805 are calculated to continue to operate at LOS E or LOS F as for Scenario 10. The remaining segments are calculated to continue to operate at LOS D or better.

- Northbound I-805 from Telegraph Canyon Road to East "H" Street (LOS F (0) during the AM peak hour)
- Southbound I-805 from East "H" Street to Telegraph Canyon Road (LOS E during the AM peak hour and LOS F (0) during the PM peak hour)
- Southbound I-805 from Telegraph Canyon Road to Olympic Parkway (LOS E during the PM peak hour)
- Northbound I-805 from Main Street to Olympic Parkway (LOS E during the AM peak hour)
- Southbound I-805 from Olympic Parkway to Main Street (LOS F(0) during the AM and PM peak hours)

As seen above, operations along some segments are calculated to improve over that for Scenario 9. This may be due to the removal of toll on SR 125, which results in the reduction of traffic on the northern two segments of I-805.

As seen in Table 20, for Scenario 10, all segments of SR 125 from East "H" Street to south of Main Street are calculated to operate at LOS D or better. With the removal of toll on SR 125, the traffic on SR 125 increases.

13.0 Congestion Management Program (CMP) Compliance

The Congestion Management Program Update (CMP) was adopted in January 2003 by the SANDAG Board, and is intended to directly link land use, transportation and air quality through Level of Service performance. Local agencies are required by statute to conform to the CMP.

The CMP requires an Enhanced CEQA Review for all large projects that are expected to generate more than 2,400 ADT or more than 200 peak hour trips. Since the project is calculated to generate traffic in excess of these amounts, this level of review is required of the proposed project.

In 1993, the Institute of Transportation Engineers California Border Section and the San Diego Region Traffic Engineer's Council established a set of guidelines to be used in the preparation of traffic impact studies that are subject to the Enhanced CEQA review process. This published document, which is titled 1993 Guidelines for Congestion Management Program Transportation Impact Reports for the San Diego Region, requires that a project study area be established as follows:

1) All streets and intersections on CMP principal arterials where the project will add 50 or more peak hour trips in either direction.

2) Mainline freeway locations where the project will add 50 or more peak hour trips in either direction.

This project is calculated to add more than 50 new directional peak hour trips to I-805. This is the only CMP facility in the study area. Section 12.0 contains a complete analysis of I-805.

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14.0 Access Assessment

14.1 SITE ACCESS DRIVEWAYS

Project traffic was assigned to the following project access driveways, which were analyzed for the buildout condition.

44. Magdelena Avenue/Birch Road
45. Magdelena Avenue/Rock Mountain Road
46. Street "C"/La Media

Figure 38 depicts the recommended geometry at the proposed access intersections and **Figure 39** depicts the buildout peak hour intersection turning movement volumes. **Table 21** summarizes the results of the access intersection analysis. As seen in Table 21, all project access intersections are calculated to operate at LOS D or better conditions with the assumed intersection geometry. **Appendix XVI** contains the peak hour access intersection buildout analyses work sheets.

14.2 TURN LANE STORAGE LENGTHS

One of the products of the Traffix peak hour intersection analysis worksheets is the queue length for each movement at an intersection. Based on this information under buildout, the required left-turn storage lengths and the right-turn deceleration lengths were estimated at the project driveways. The higher of the AM and PM peak hour queue lengths were used to determine the required storage lengths. **Table 22** indicates the required turn lane storage lengths at the project driveways, **on a per lane basis.**

14.3 REVIEW OF INTERNAL CIRCULATION STUDY BY DARNELL & ASSOCIATES

A traffic analysis dated April 1, 2004 was prepared by Darnell & Associates, for the internal traffic circulation of Village 7. A copy of the report is included in **Appendix XVI**. This study analyzes the following four conditions:

Condition 1: Development of the high school site with 1,420 students and 450 students with access to Birch Road via Magdalena Avenue only.

Condition 2: Full occupancy of the high school with 2,950 students and 450 units with access to Birch Road via Magdalena Avenue only.

Condition 3: Full occupancy of the high school with 2,950 students with development of sited R-1, R-2, R-5, R-6, R-7, P-1 and S-3. This condition also includes extension of La Media Road to Street "C", to provide additional access for the school.

Condition 4: Future conditions with full development of Village 7 and the surrounding land uses with the full roadway network including the Rock Mountain Road/State Route SR 125 interchange.

The report concludes the following:

- For Conditions 1 and 2, Magdalena Avenue and the Magdalena Avenue/Birch Road intersection will accommodate the full development of the school and 450 dwelling units prior to having La Media Road extended.
- For Condition 3, Magdalena Avenue and all internal intersections can accommodate the full enrollment at the high school and areas R-1, R-2, R-5, R-6, R-7, P-1 and S-3.
- For condition 4, all roadways will operate below capacity.

- The following traffic control is recommended for the internal intersections:
  - Magdalena Avenue/Street "J" - All–way STOP
  - Magdalena Avenue/Street "D" - All–way STOP
  - Magdalena Avenue/MU-1 Access - All–way STOP
  - Magdalena Avenue/Street "E" - All–way STOP
  - Magdalena Avenue/Street "C" - Traffic Signal

LLG reviewed this report and offers the following comments:

- At the Birch Road/Magdalena Avenue intersection, the AM peak hour eastbound right turn volumes are 433 in Condition 1, 858 in Condition 2, 300 in Condition 3 and 295 in Condition 4. Birch Road is a six–lane facility. A shared through/right-turn lane is provided for this movement (Figure 3). A dedicated westbound right-turn lane should be provided for Condition 1.

- In condition 2, the eastbound right-turn volumes at the Birch Road/Magdalena Avenue intersection is 858 vehicles per hour (vph), which is in excess of the City standard of 400 vehicles. Hence a second access will be required for Condition 2.

- The following traffic controls recommended for the internal intersections are adequate.

  - **Magdalena Avenue/Street "J":** Provide All–way STOP control at the Magdalena Avenue/Street "J" intersection.

  - **Magdalena Avenue/Street "D":** Provide All–way STOP control at the Magdalena Avenue/Street "D" intersection.

  - **Magdalena Avenue/MU-1 Access:** Provide All–way STOP control at the Magdalena Avenue/MU-1 intersection.

  - **Magdalena Avenue/Street "E":** Provide All–way STOP control at the Magdalena Avenue/Street "E" intersection.

  - **Magdalena Avenue/Street "C":** Provide traffic signal control at the Magdalena Avenue/Street "C" intersection.

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15.0 Pre SR 125 Analysis

A traffic analysis was completed by Linscott Law and Greenspan Engineers (LLG) in April 2003 (See **Appendix XVII**), which determines the total number of dwelling units which can be constructed in the eastern territories of Chula Vista before the City's LOS thresholds would be exceeded. This number of dwelling units was set as the maximum, which could be built before SR 125 was needed.

The analysis was done using the City's GMOC and TMP (Traffic Monitoring Program) thresholds. With a starting date of January 1, 2003, the total number of units was determined to be 6,150. With the completion of improvements on Telegraph Canyon Road, East "H" Street and the I-805/Olympic Parkway interchange, this number was raised to 8,990 units. No project units can be built which would result in the 8990 units being exceeded. Non-residential land uses could be developed since they attract trips, as opposed to producing them.

16.0 PFFP Assessment

16.1 RESIDENTIAL UNIT THRESHOLD

An analysis was conducted to determine approximately how many units within Village 7 could be built before access to La Media Road would be needed. It is assumed that access would initially be provided via only Magdalena Drive to Birch Road and the next access to be provided would be to La Media Road. Several other assumptions were necessary to conduct this analysis as listed below:

- SR 125 is completed with an interchange at Birch Road but not a Rock Mountain Road.
- High School with 2,950 students is built (trip generation rate of 2.0 ADT/student).
- Rock Mountain Road does not extend east or west of the site.
- Roadway connection to the EUC is not yet provided.
- Connection to La Media is needed once the northbound left-turn volume at the Birch Road/Magdalena Avenue intersection reaches 600 vehicles per hour (vph) or the eastbound right-turn volume reaches 400 vph based on City standards (City of Chula Vista Design Standards, 2002 Construction Standards).
- 60% of northbound residential traffic on Magdalena Avenue turns left.
- One half of the commercial area is developed and middle school and elementary school are not built.
- Assume each dwelling unit generates 9 ADT, 0.54 AM outbound trips (9 ADT*8% during AM peak * 75% of AM trips are outbound) and 0.18 inbound trips.

By inspection, because of the large amount of high school AM inbound traffic, the AM eastbound right-turn is expected to "reach capacity" first.

Based on Table 10, the high school generates 825 AM inbound trips and all these trips must use the Birch Road/Magdalena Avenue intersection (once residential units are built within Village 7, it could be assumed that 15% of these trips remain within Village 7 and the number of inbound trips using the Birch Road/Magdalena Avenue intersection would be 700 vph).

Assuming 60% of the 825 trips are oriented to/from the west, the AM peak hour eastbound right-turn volume would be 495 vph and with ½ of the commercial traffic added in, 517 vph. Since these volumes exceed 400 vph (the capacity of a right-turn lane), access to La Media Road shall be provided with the first building permit.

16.2 HIGH SCHOOL ONLY THRESHOLD

The Birch Road/Magdalena intersection can accommodate all high school traffic until Birch Road is connected between La Media Road and Eastlake Parkway (or SR 125) since there would be virtually no cross traffic on Birch Road. Once Birch Road is connected, there will be cross traffic on Birch Road, which would make eastbound right-turns and the northbound left-turn volumes exceed City standards. Assuming cross traffic on Birch Road, **1,475 High School students** (out of 2,950 total) would generate over 400 AM peak hour eastbound right-turn vehicles at the Birch Road/Magdalena Avenue intersection. In summary, the high school would need access to La Media Road via Street "C" if over 1,475 students are desired and Birch Road is connected between La Media Road and Eastlake Parkway (or SR 125).

There is not a traffic demand justification for Rock Mountain Road assuming access from Village 7 to Birch Road and La Media Road is provided.

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17.0 Significance of Impacts

Based on the peak hour intersection and street segment analyses, the significance of impacts under each analysis timeframe was determined. **Table 23** summarizes the significant intersection impacts, while **Table 24** summarizes the significant street segment impacts. Significant cumulative impacts are calculated on I-805 since LOS F is calculated for individual scenarios and the project adds traffic to this freeway. In addition, access related impacts would occur if appropriate control and lane configurations are not provided at the project driveways.

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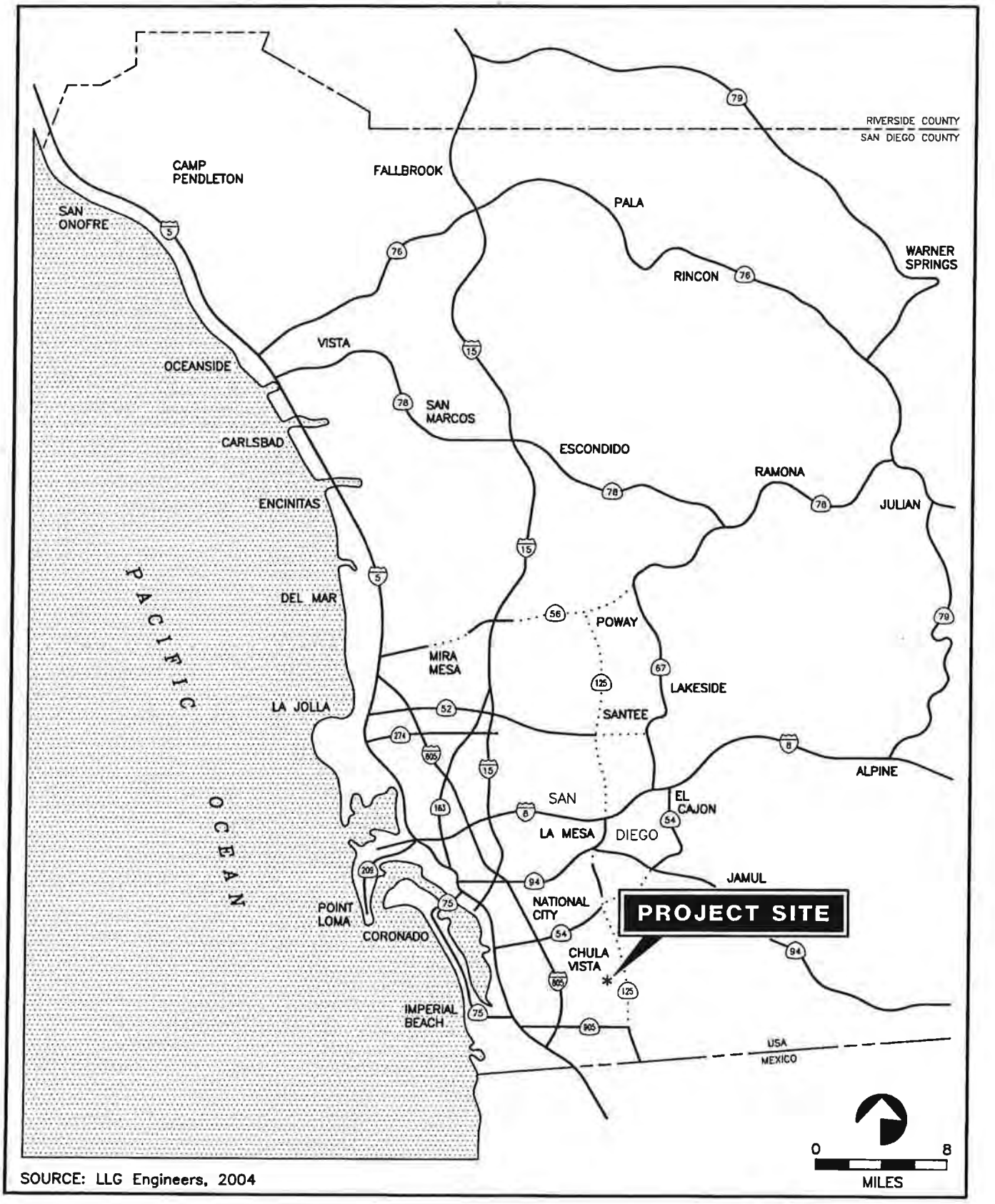
18.0 Mitigation Measures

Measures are recommended to mitigate significant project and cumulative impacts. **Table 25** lists the mitigation measures for direct and cumulative impacts.

Mitigation for impacts on Rock Mountain Road includes widening this facility to an 8-Lane Prime Arterial. Since this is a non-standard cross-section, the capacity was derived based on the capacity of a 6-Lane Prime Arterial. The LOS C capacity of an 8-Lane Prime Arterial was derived by multiplying the per lane capacity of a 6-Lane Prime Arterial (50,000/6 = 8,333) by the number of lanes (8 x 6,667 = 66,700).



SOURCE: LLG Engineers, 2004

Figure 1

VICINITY MAP

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OTAY RANCH VILLAGE 7

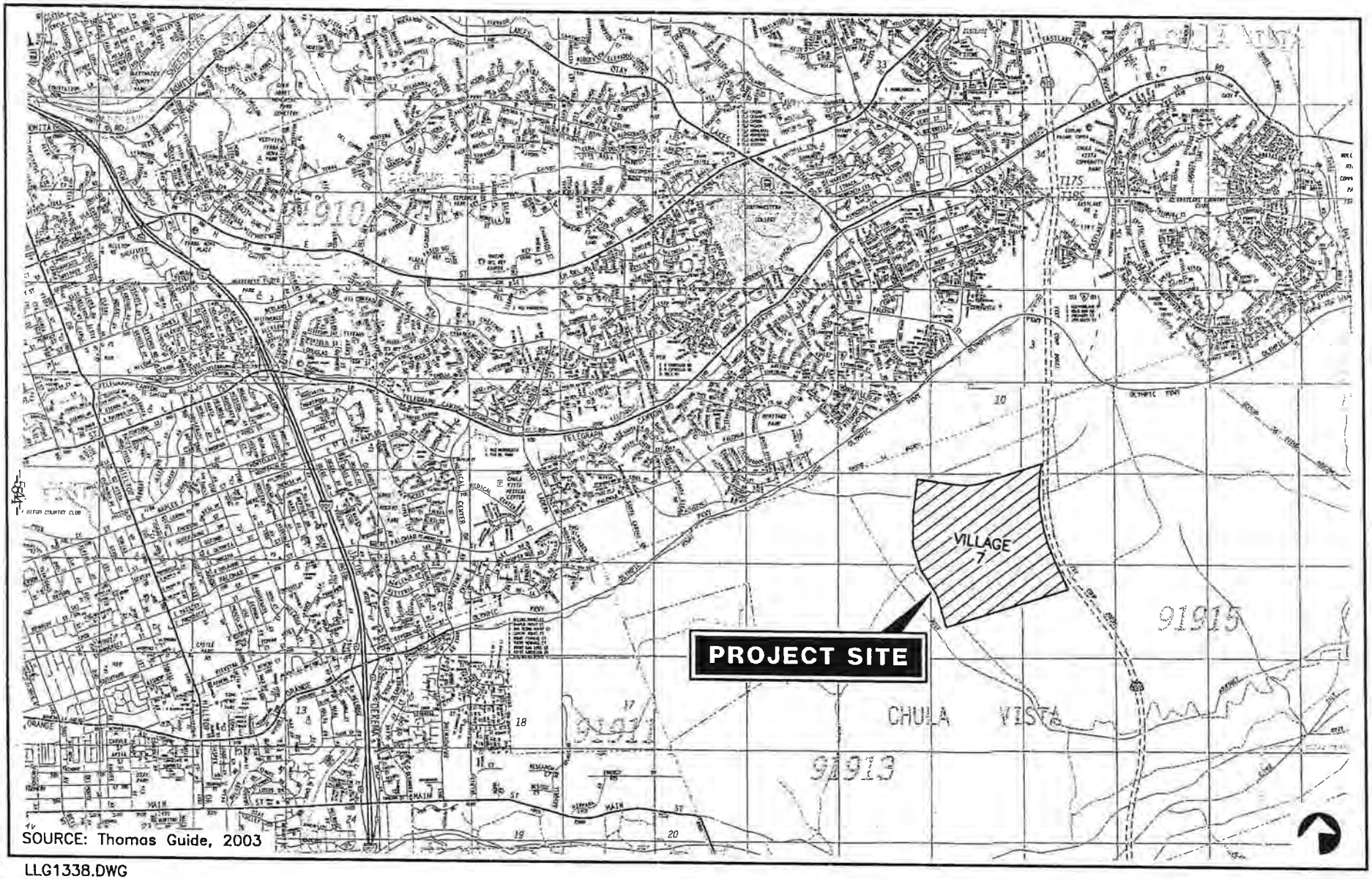

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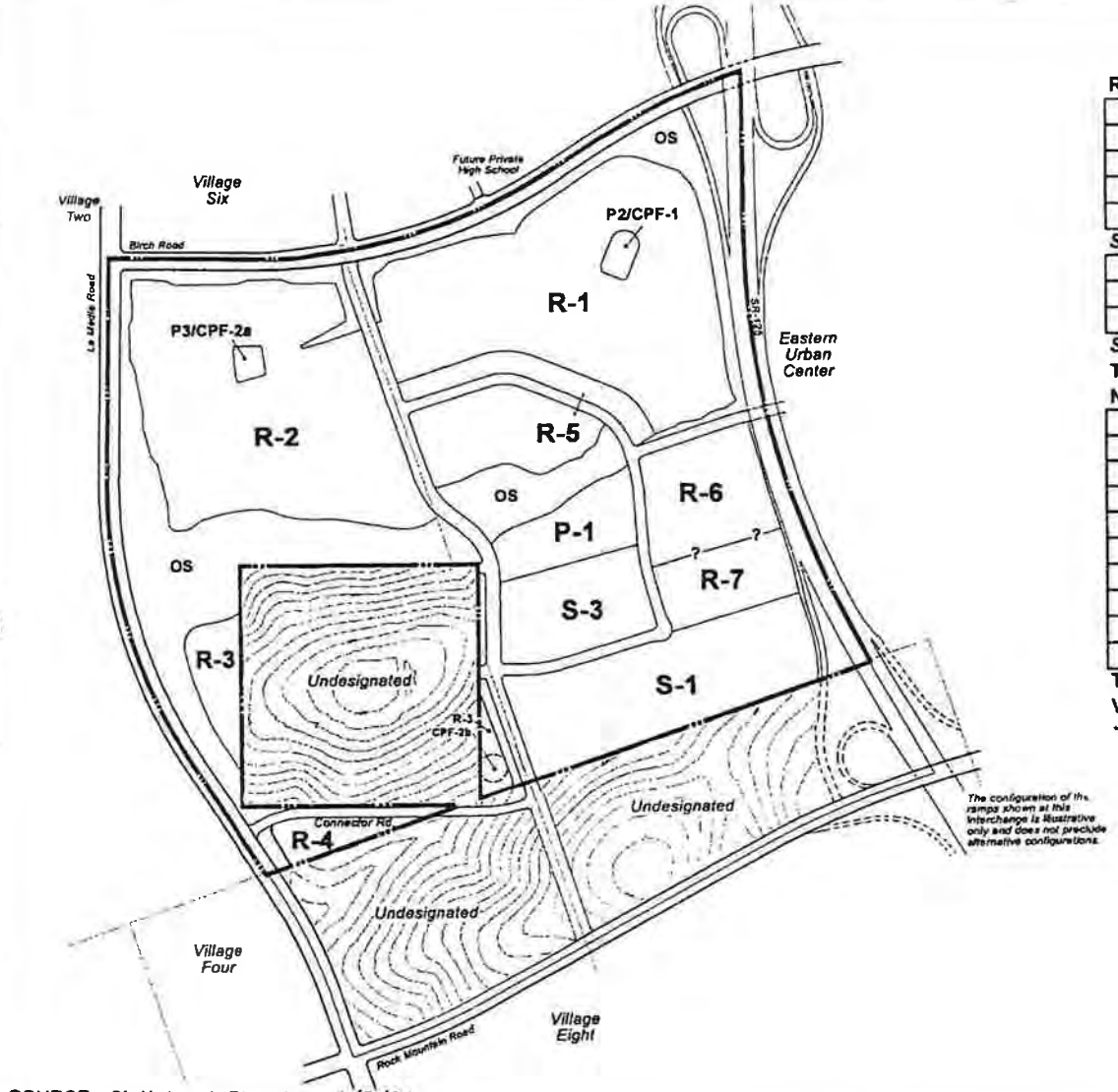
Figure 2

PROJECT AREA MAP

...Y R...H V...GE



SOURCE: Cinti Land Planning, 4/8/04

NO SCALE

LLG1340.DWG

RESIDENTIAL

Neighborhood	Land Use	Acres	du/ac	DU
R-1	SFD	50.7	6.8	346
R-2	SFD	50.5	7.4	375
R-3	SFD *(Designated)*	5.3	4.2	22
R-4	SFD *(Designated)*	3.1	4.2	13
Sub-total SFD		***109.6***	***6.9***	***756***
R-5	MF/SF Cluster	17.4	8.2	142
R-6	MF/SF Cluster*	12.5	15.0	187
R-7	MF*	8.0	14.9	119
Sub-total MF		***37.9***	***11.8***	***448***
Total Residential		**147.5**	**8.2**	**1,204**

NON-RESIDENTIAL

Neighborhood	Land Use	Acres
P-1	Public Park	7.6 *(7.0 ac req'd)*
P2/CPF-1	CPF *(Common OS)*	1.1
P3/CPF-2a	CPF *(Common OS)*	0.7
CPF-2b	CPF	1.0
S-1	High School *(Designated)*	23.4
S-3	Elem. School	11.1
OS	Open Space *(Designated)*	47.8
Undesignated	Undesignated Uses	121.3
Clr.	Circulation	62.9
Total Non-Residential		**276.9**
VILLAGE TOTAL		**424.4**

** Refer to SPA Text for provisions to blend these two parcels.*

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Figure 3

SITE UTILIZATION PLAN

OTAY RANCH VILLAGE 7

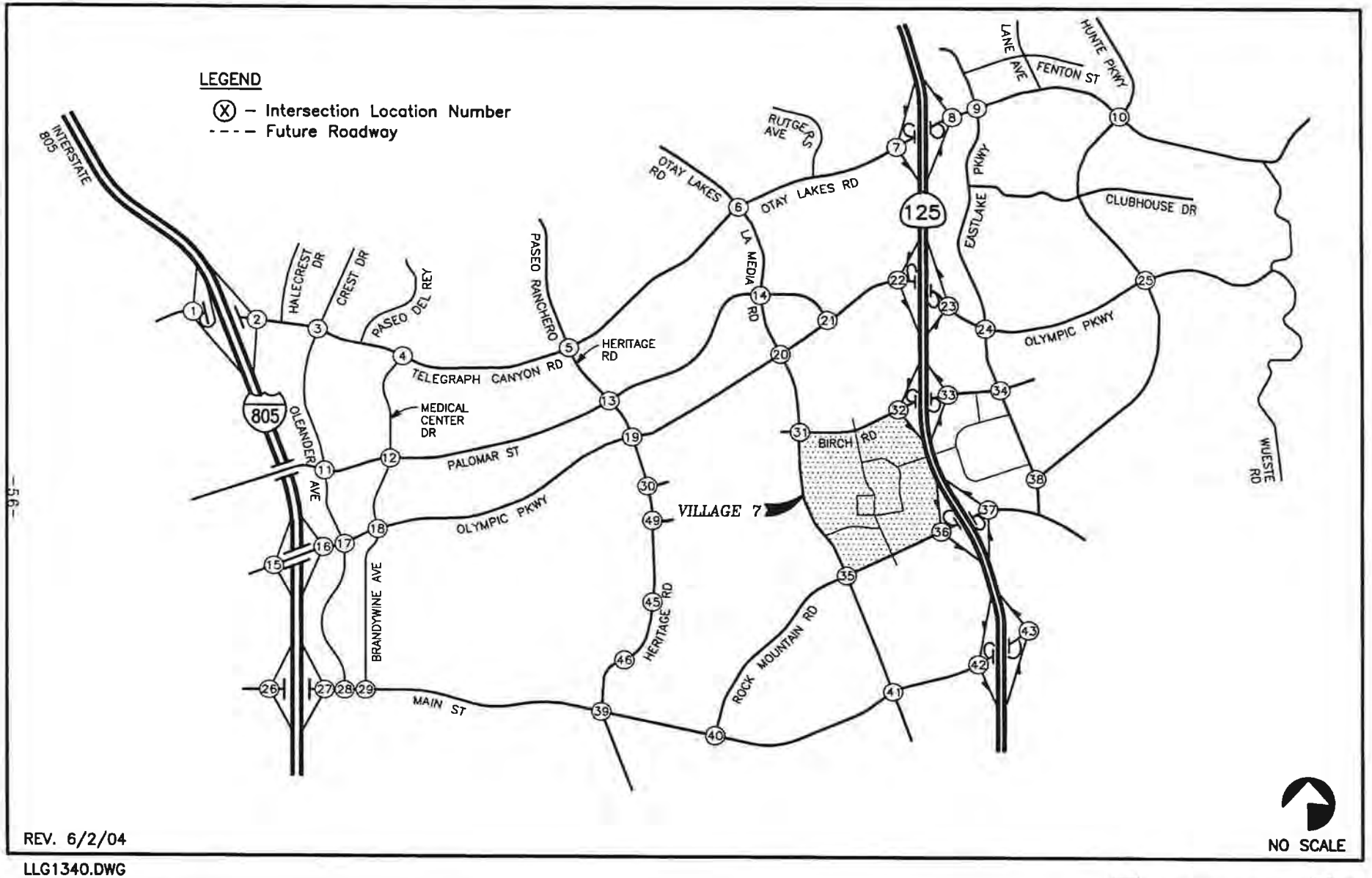

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Figure 3a

CITY OF CHULA VISTA ADOPTED CIRCULATION ELEMENT

OTAY RANCH VILLAGE 7

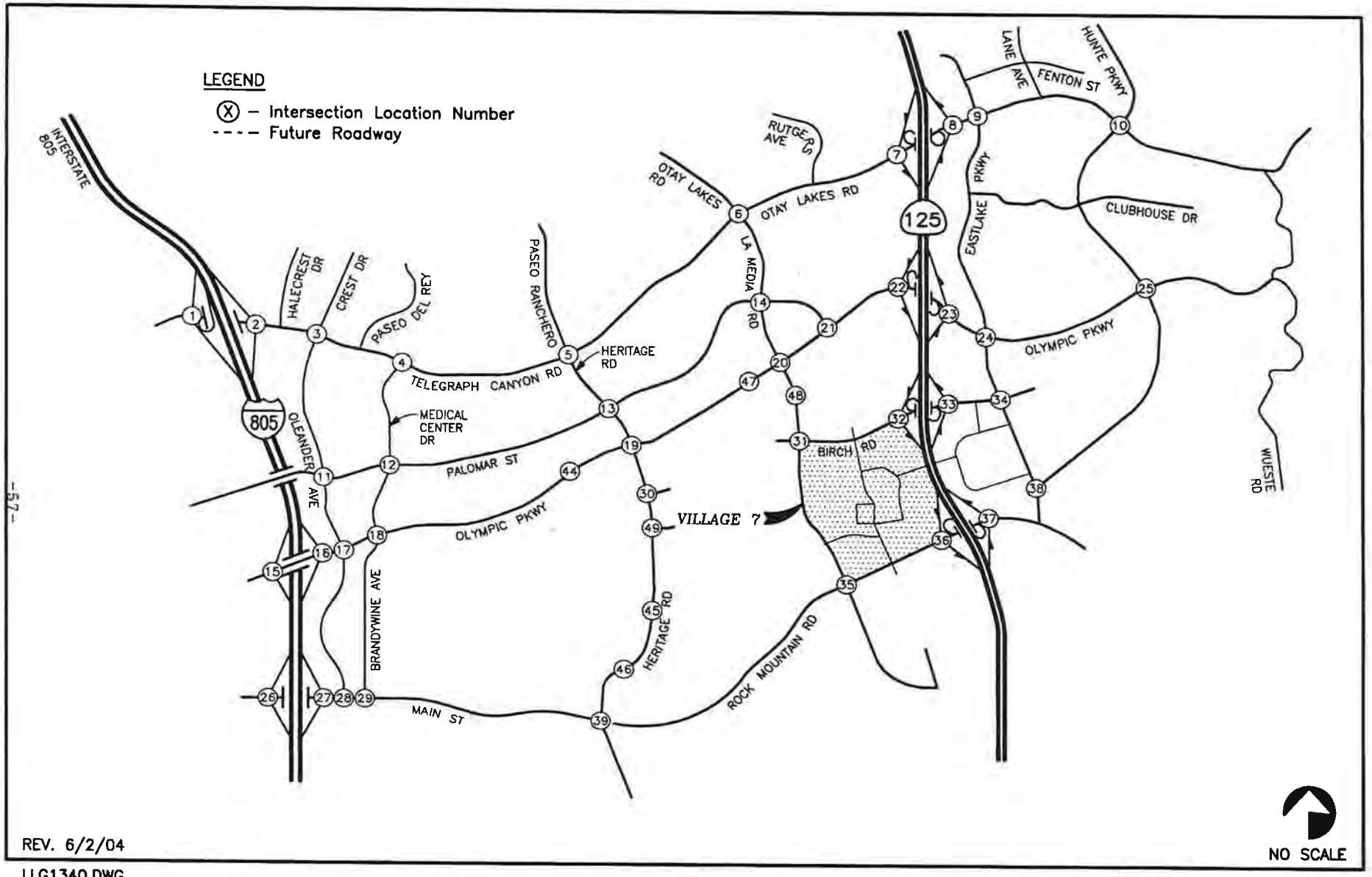

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Figure 3b

CITY OF CHULA VISTA PROPOSED CIRCULATION ELEMENT

OTAY RANCH VILLAGE 7

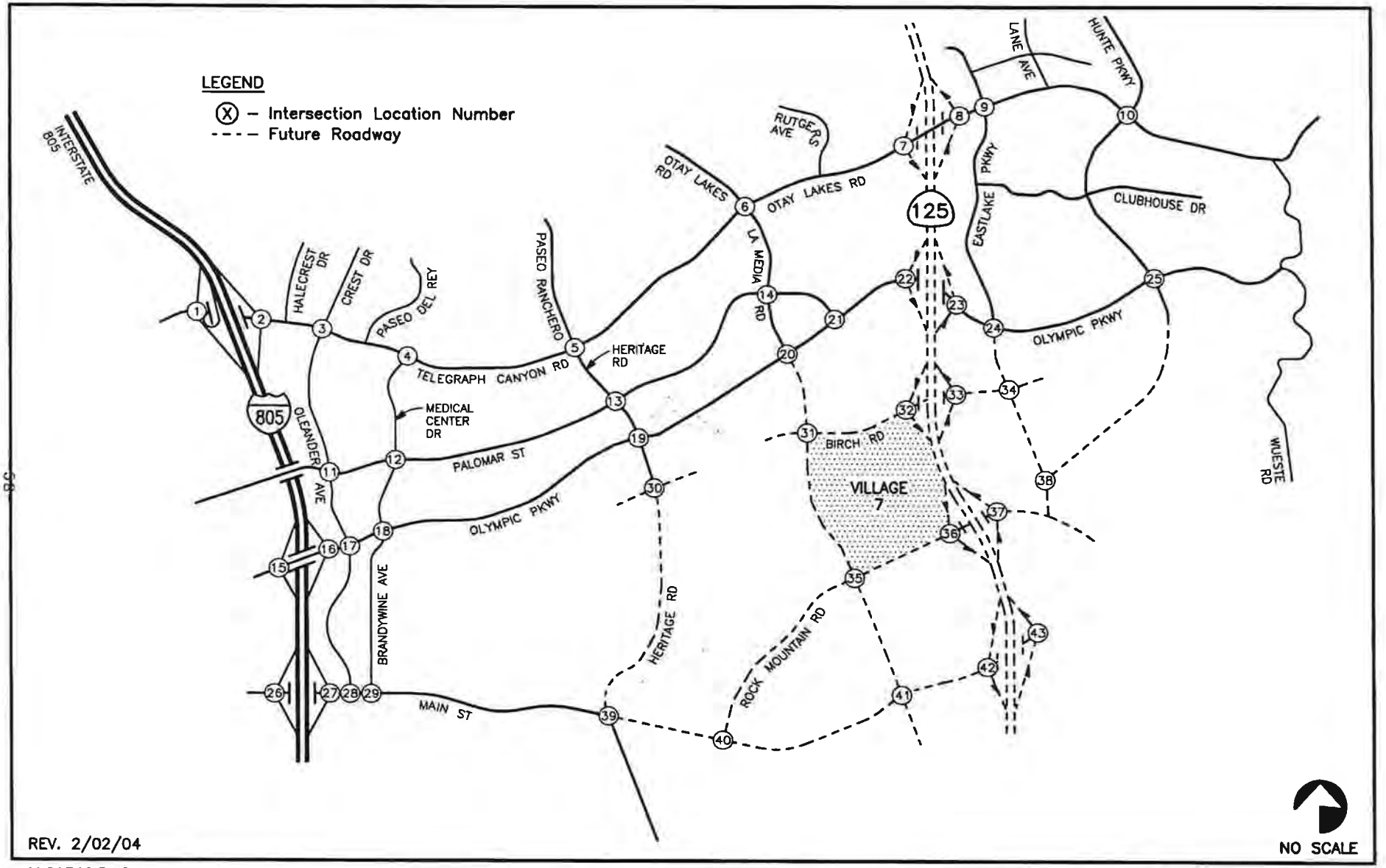

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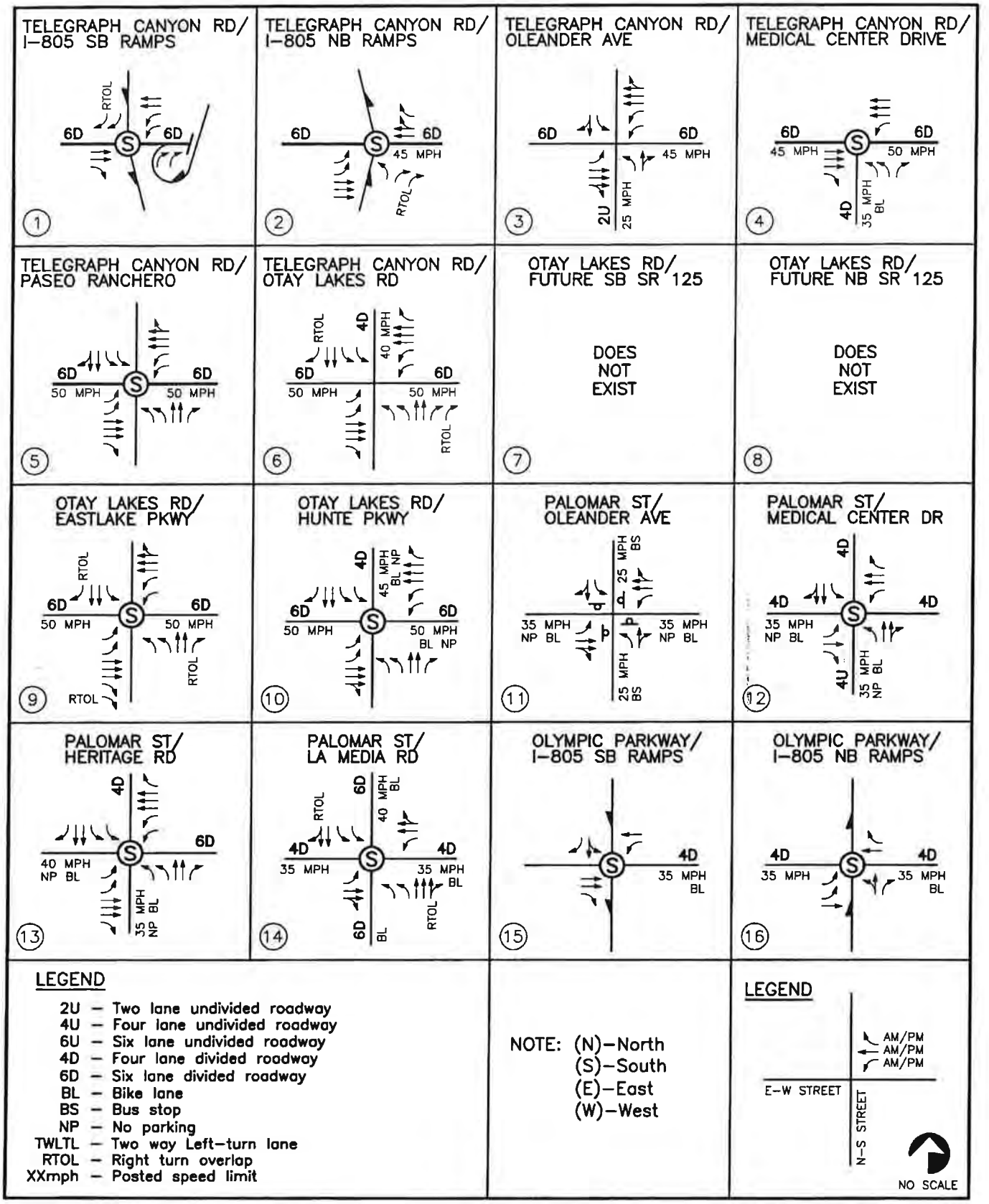
Figure 4

STUDY AREA MAP

OTAY RANCH VILLAGE 7



REV. 4/12/04
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Figure 5
(1 OF 3)
EXISTING CONDITIONS DIAGRAM

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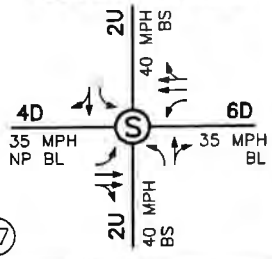
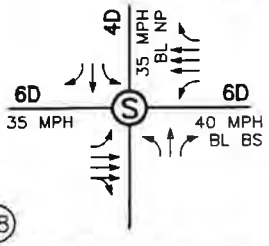
OTAY RANCH VILLAGE 7

OLYMPIC PARKWAY/
OLEANDER AVENUE



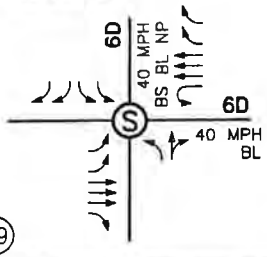
17

OLYMPIC PARKWAY/
BRANDYWINE AVENUE



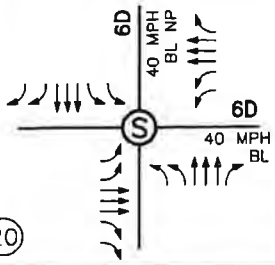
18

OLYMPIC PARKWAY/
HERITAGE RD



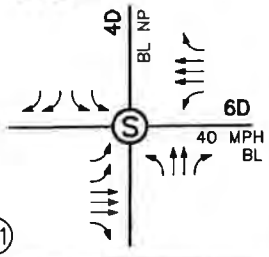
19

OLYMPIC PARKWAY/
LA MEDIA RD



20

OLYMPIC PARKWAY/
PALOMAR ST



21

OLYMPIC PARKWAY/
FUTURE SB SR 125

DOES
NOT
EXIST

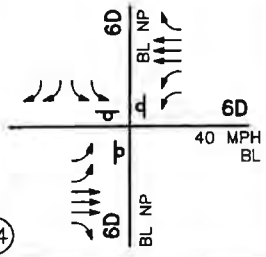
22

OLYMPIC PARKWAY/
FUTURE NB SR 125

DOES
NOT
EXIST

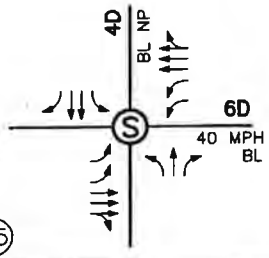
23

OLYMPIC PARKWAY/
EASTLAKE PKWY



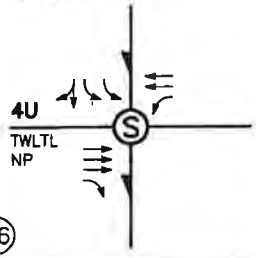
24

OLYMPIC PARKWAY/
HUNTE PKWY



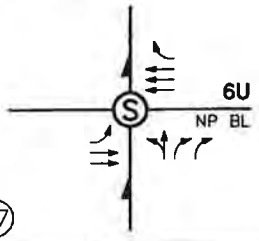
25

MAIN ST/
I-805 SB RAMPS



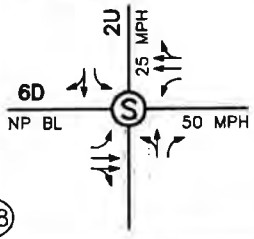
26

MAIN ST/
I-805 NB RAMPS



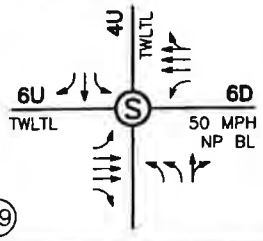
27

MAIN ST/
OLEANDER AVE



28

MAIN ST/
BRANDYWINE AVE



29

VILLAGE 2 STREET "D"/
HERITAGE RD

DOES
NOT
EXIST

30

BIRCH ROAD/
LA MEDIA ROAD

DOES
NOT
EXIST

31

BIRCH ROAD/
SR-125 SB RAMPS

DOES
NOT
EXIST

32

LEGEND

2U – Two lane undivided roadway
4U – Four lane undivided roadway
6U – Six lane undivided roadway
4D – Four lane divided roadway
6D – Six lane divided roadway
BL – Bike lane
BS – Bus stop
NP – No parking
TWLTL – Two way Left-turn lane
RTOL – Right turn overlap
XXmph – Posted speed limit

NOTE: (N)–North
(S)–South
(E)–East
(W)–West

LEGEND

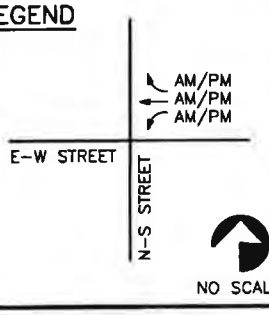


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Figure 5
(2 OF 3)

EXISTING CONDITIONS DIAGRAM

OTAY RANCH VILLAGE 7

BIRCH ROAD/ SR-125 NB RAMPS DOES NOT EXIST (33)	BIRCH ROAD/ EASTLAKE PARKWAY DOES NOT EXIST (34)	ROCK MOUNTAIN ROAD/ LA MEDIA ROAD DOES NOT EXIST (35)	ROCK MOUNTAIN ROAD/ SR-125 SB RAMPS DOES NOT EXIST (36)
ROCK MOUNTAIN ROAD/ SR-125 NB RAMPS DOES NOT EXIST (37)	HUNTE PKWY/ EASTLAKE PARKWAY DOES NOT EXIST (38)	MAIN STREET/ HERITAGE RD DOES NOT EXIST (39)	MAIN STREET/ ROCK MOUNTAIN ROAD DOES NOT EXIST (40)
MAIN STREET/ LA MEDIA ROAD DOES NOT EXIST (41)	MAIN STREET/ SR-125 SB RAMPS DOES NOT EXIST (42)	MAIN STREET/ SR-125 NB RAMPS DOES NOT EXIST (43)	
		NOTE: (N)-North (S)-South (E)-East (W)-West	LEGEND AM/PM AM/PM AM/PM E-W STREET N-S STREET NO SCALE

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Figure 5
(3 OF 3)
EXISTING CONDITIONS DIAGRAM

OTAY RANCH VILLAGE 7

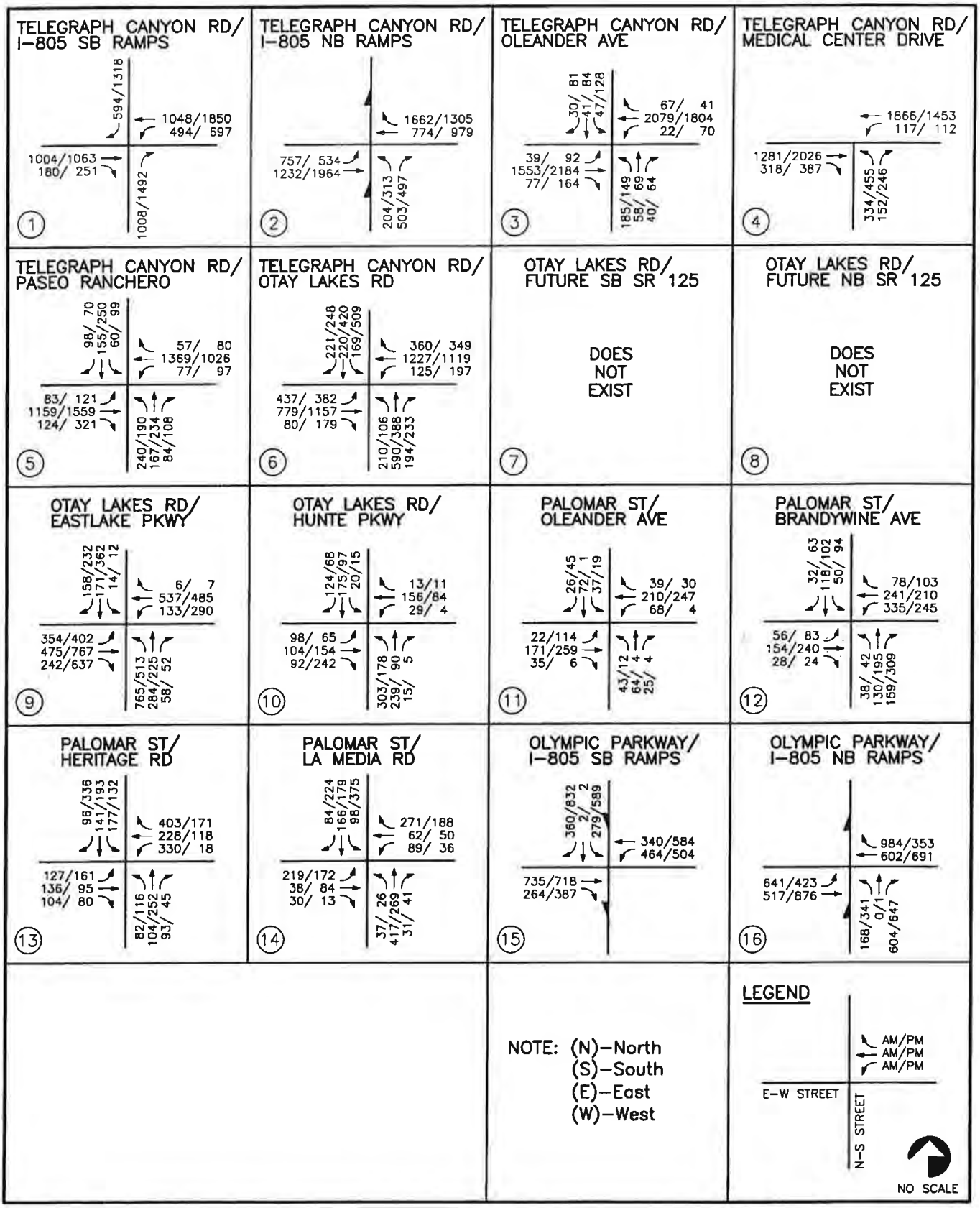

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Figure 6
(1 OF 3)

EXISTING INTERSECTION VOLUMES AM/PM PEAK HOURS
OTAY RANCH VILLAGE 7

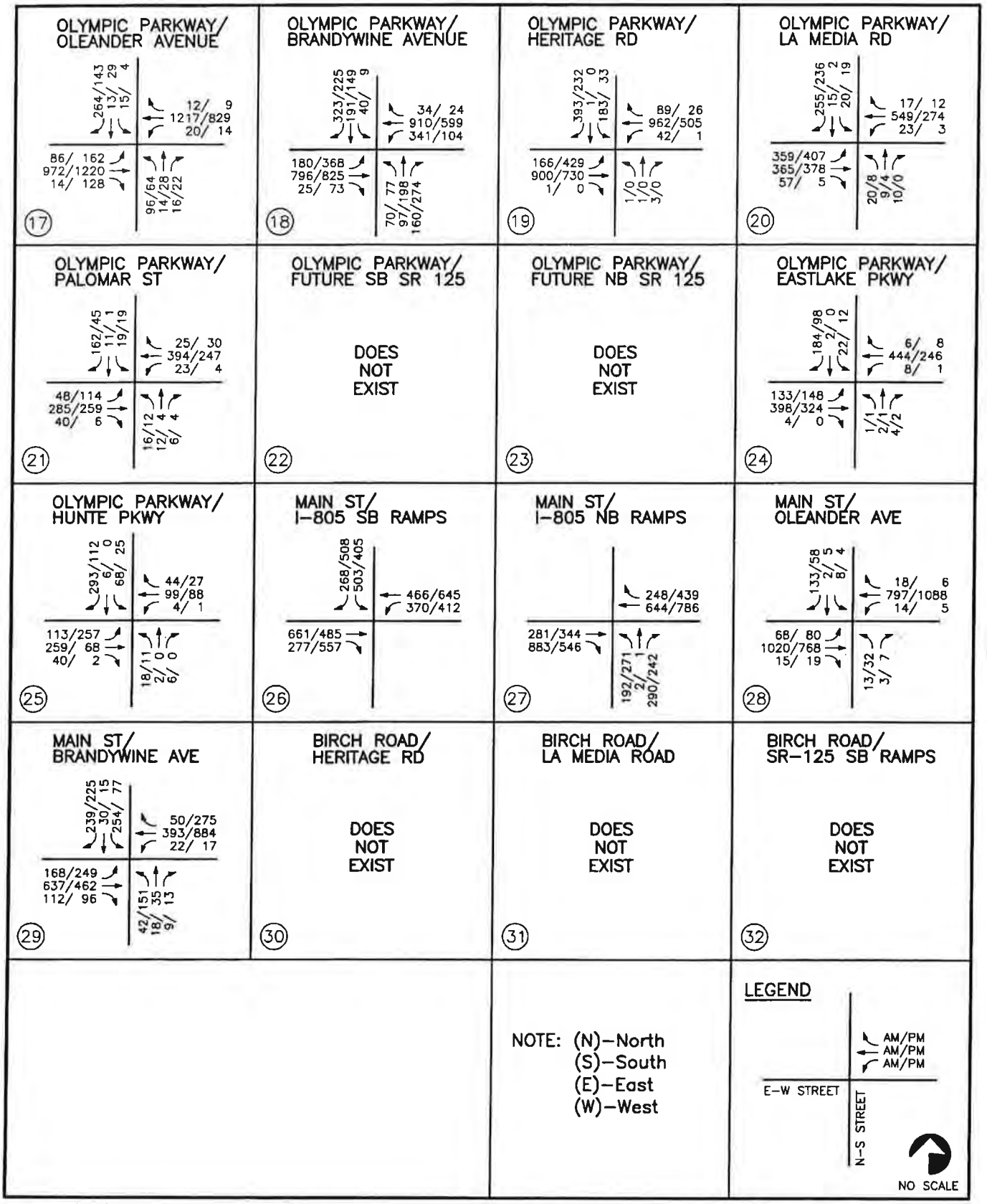

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Figure 6

(2 OF 3)

EXISTING INTERSECTION VOLUMES
AM/PM PEAK HOURS
OTAY RANCH VILLAGE 7

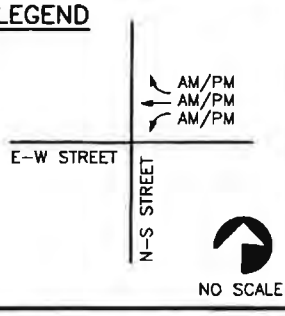
BIRCH ROAD/ SR-125 NB RAMPS DOES NOT EXIST (33)	BIRCH ROAD/ EASTLAKE PARKWAY DOES NOT EXIST (34)	ROCK MOUNTAIN ROAD/ LA MEDIA ROAD DOES NOT EXIST (35)	ROCK MOUNTAIN ROAD/ SR-125 SB RAMPS DOES NOT EXIST (36)
ROCK MOUNTAIN ROAD/ SR-125 NB RAMPS DOES NOT EXIST (37)	HUNTE PKWY/ EASTLAKE PARKWAY DOES NOT EXIST (38)	MAIN STREET/ HERITAGE RD DOES NOT EXIST (39)	MAIN STREET/ ROCK MOUNTAIN ROAD DOES NOT EXIST (40)
MAIN STREET/ LA MEDIA ROAD DOES NOT EXIST (41)	MAIN STREET/ SR-125 SB RAMPS DOES NOT EXIST (42)	MAIN STREET/ SR-125 NB RAMPS DOES NOT EXIST (43)	
		NOTE: (N)-North (S)-South (E)-East (W)-West	LEGEND 

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Figure 6
(3 OF 3)

EXISTING INTERSECTION VOLUMES AM/PM PEAK HOURS
OTAY RANCH VILLAGE 7

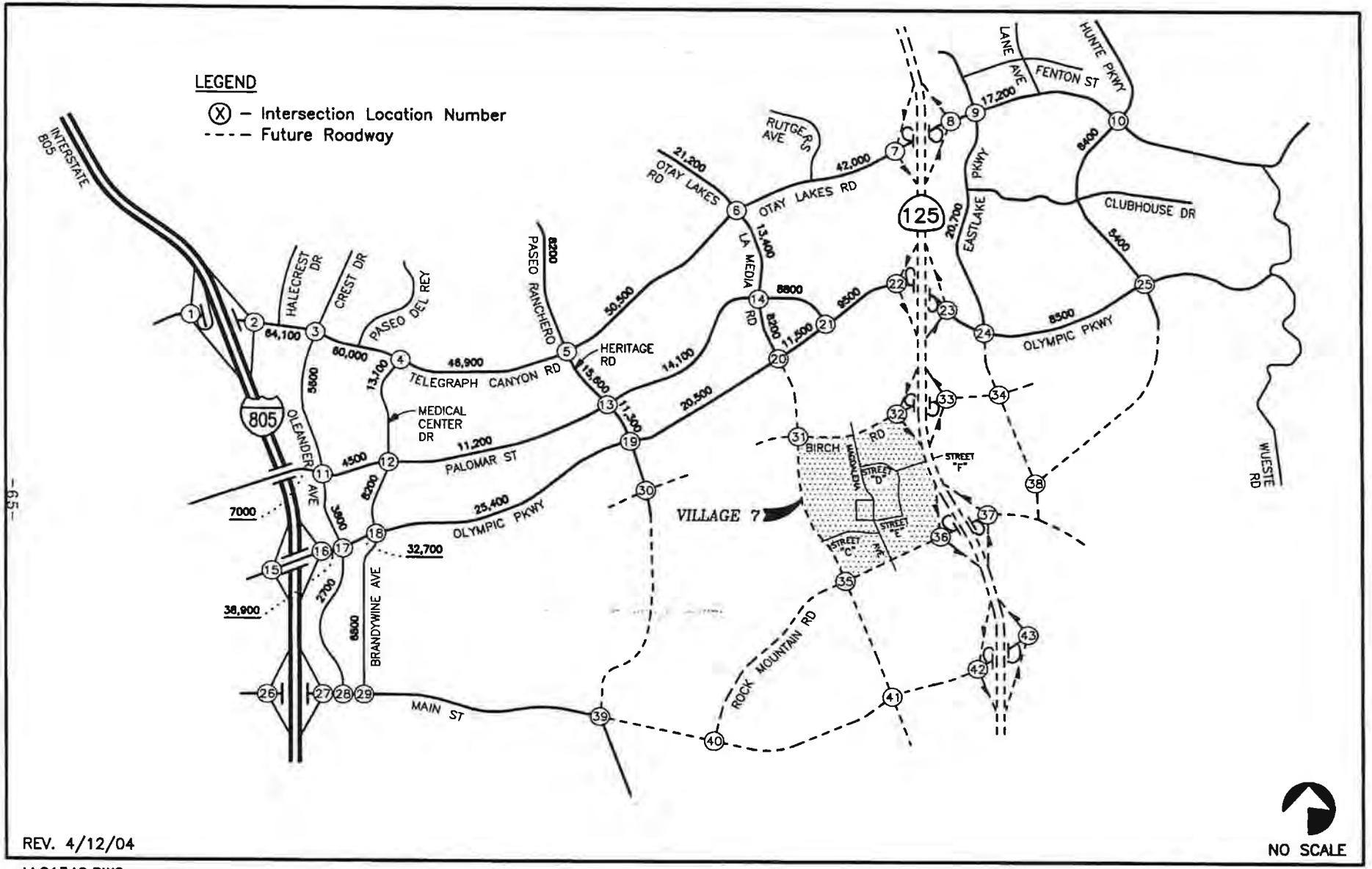

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Figure 7

EXISTING TRAFFIC VOLUMES ADT

OTAY RANCH VILLAGE 7

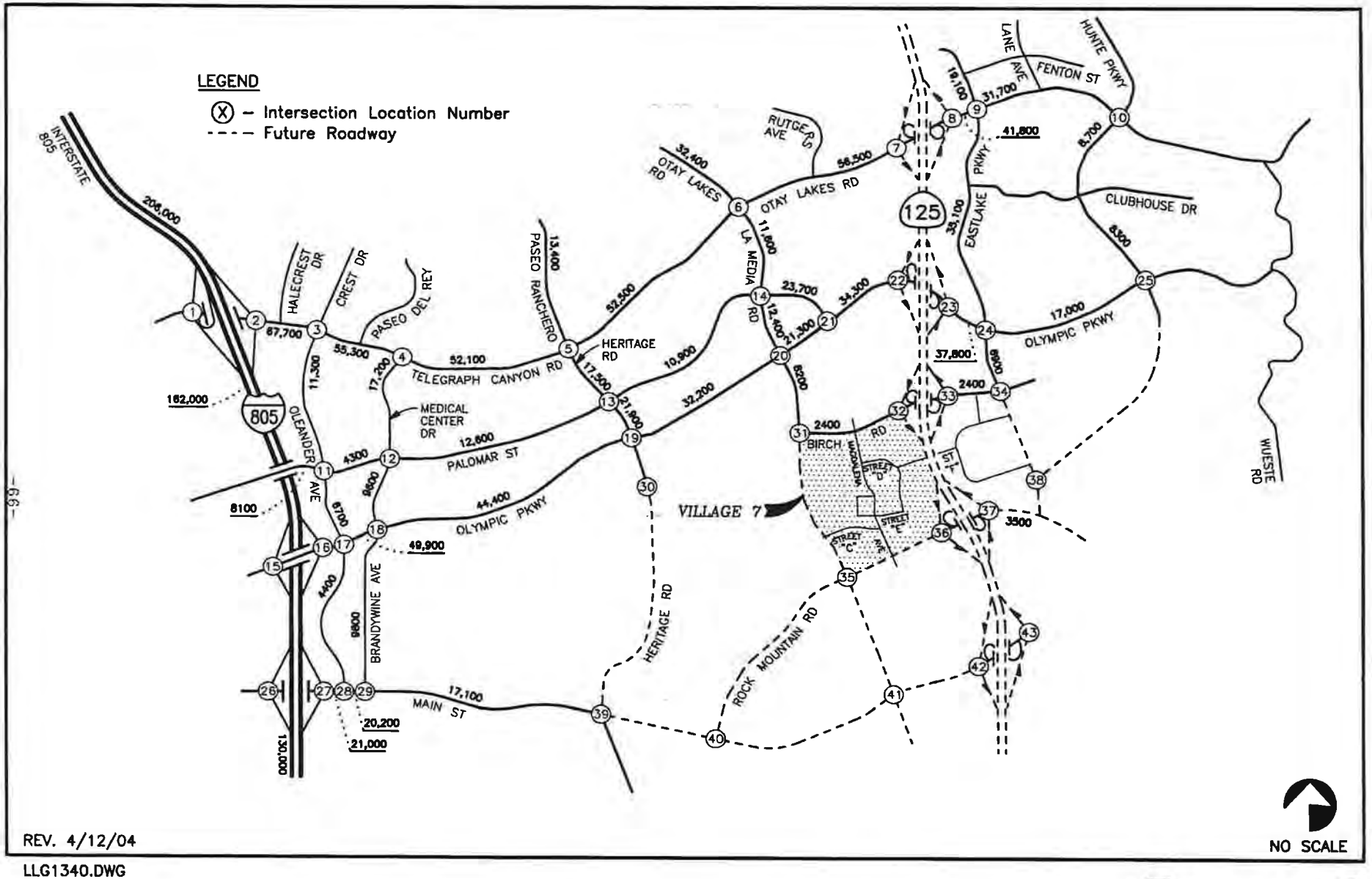

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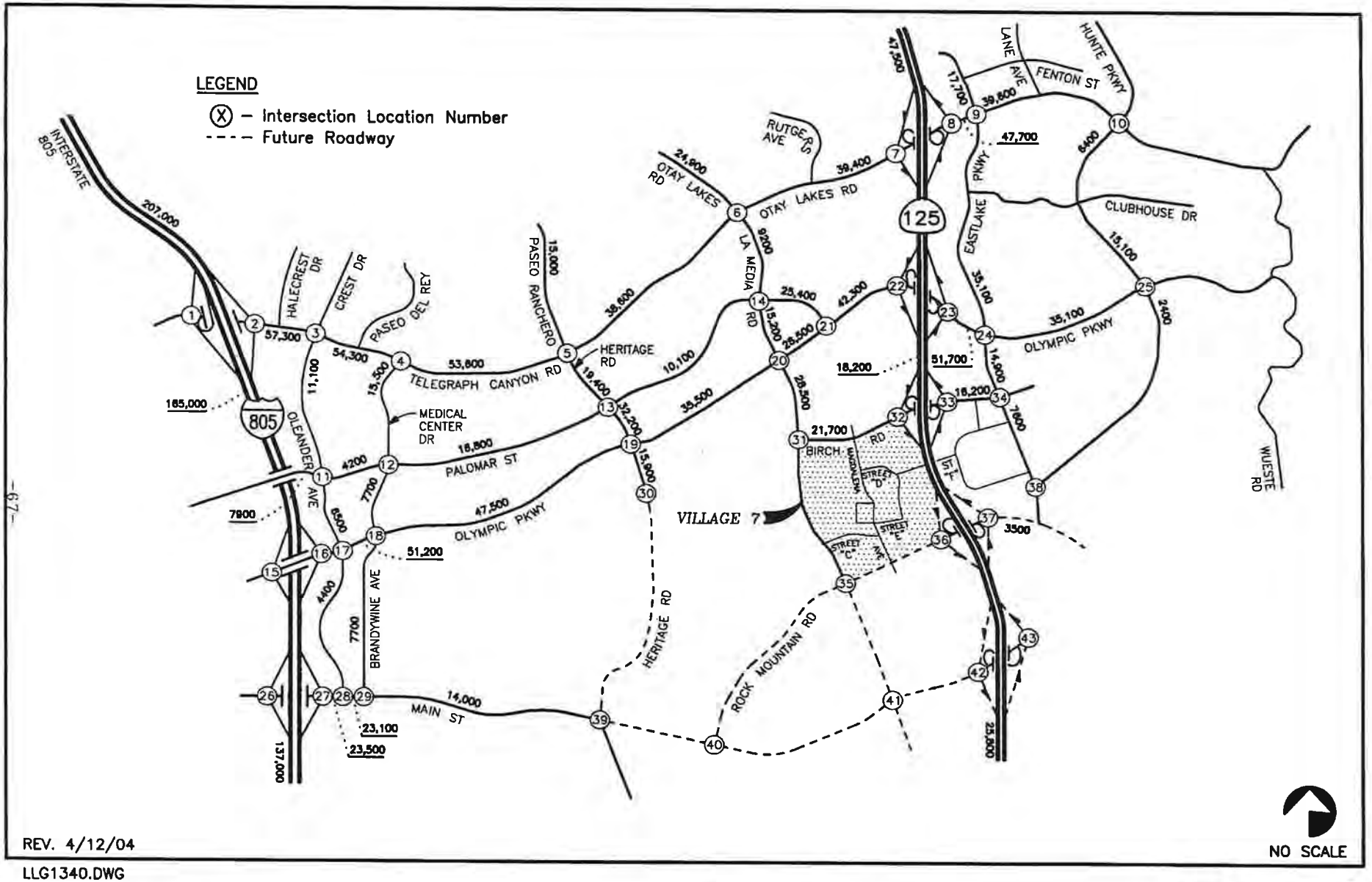
Figure 8

SCENARIO 1 (YEAR 2005) –ADT

OTAY RANCH VILLAGE 7



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NO SCALE

Figure 9

SCENARIO 2 (YEAR 2010) –ADT

OTAY RANCH VILLAGE 7

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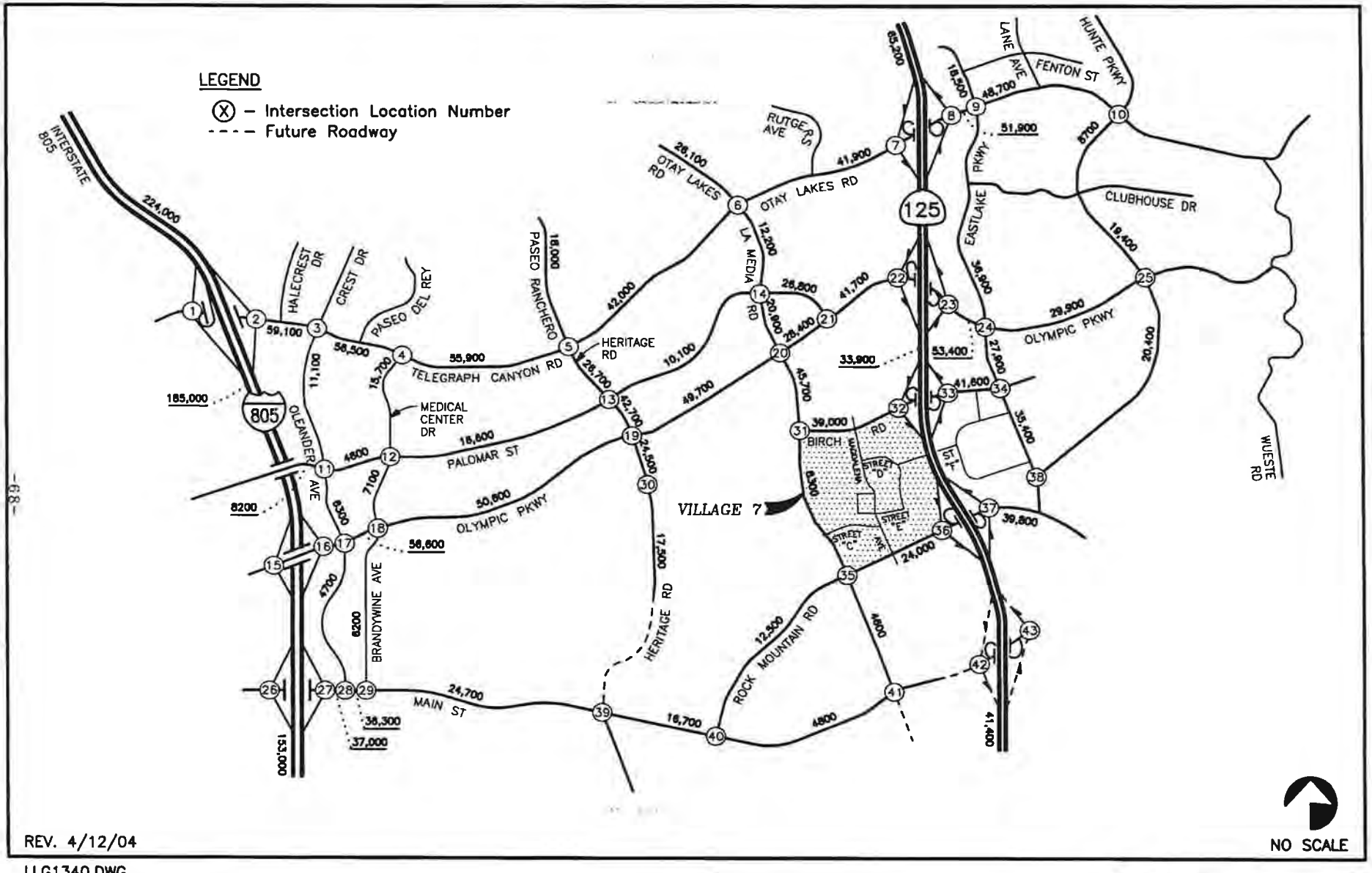

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NO SCALE

LLG1340.DWG

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Figure 10

SCENARIO 3 (YEAR 2015) –ADT

OTAY RANCH VILLAGE 7

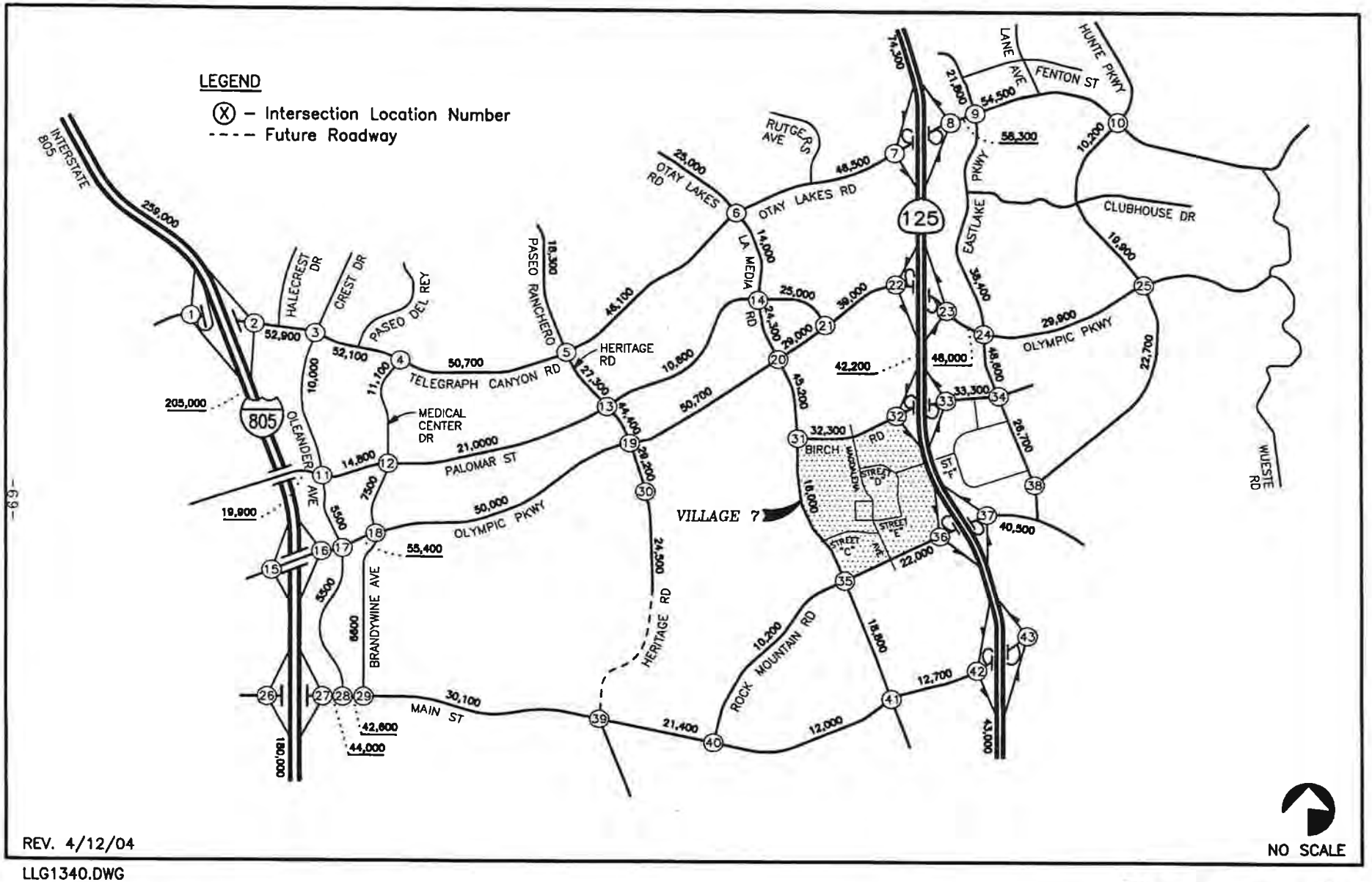

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Figure 11

SCENARIO 4 (YEAR 2030) –ADT

OTAY RANCH VILLAGE 7

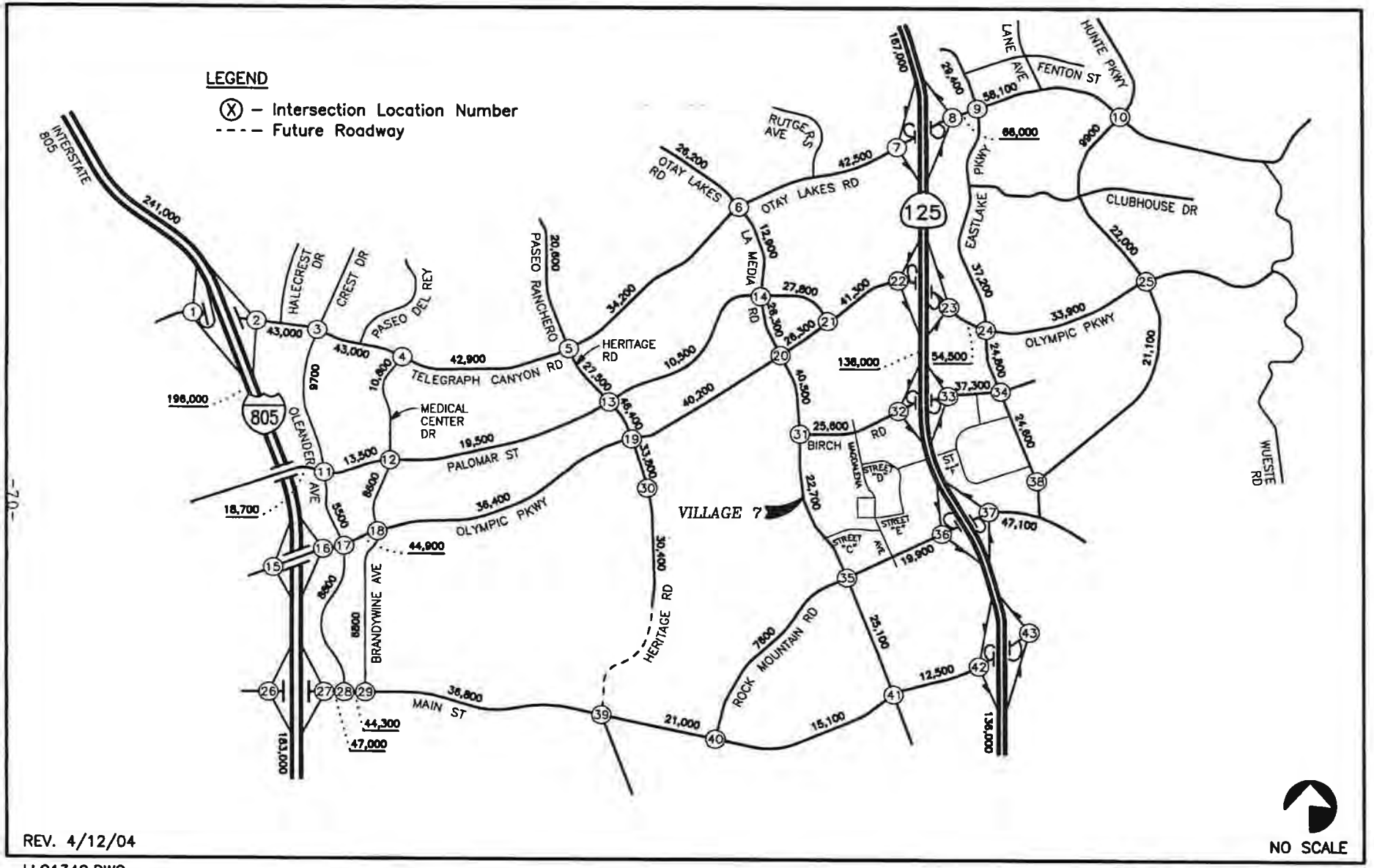

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Figure 12

SCENARIO 5 (BUILDOUT) –ADT

OTAY RANCH VILLAGE 7

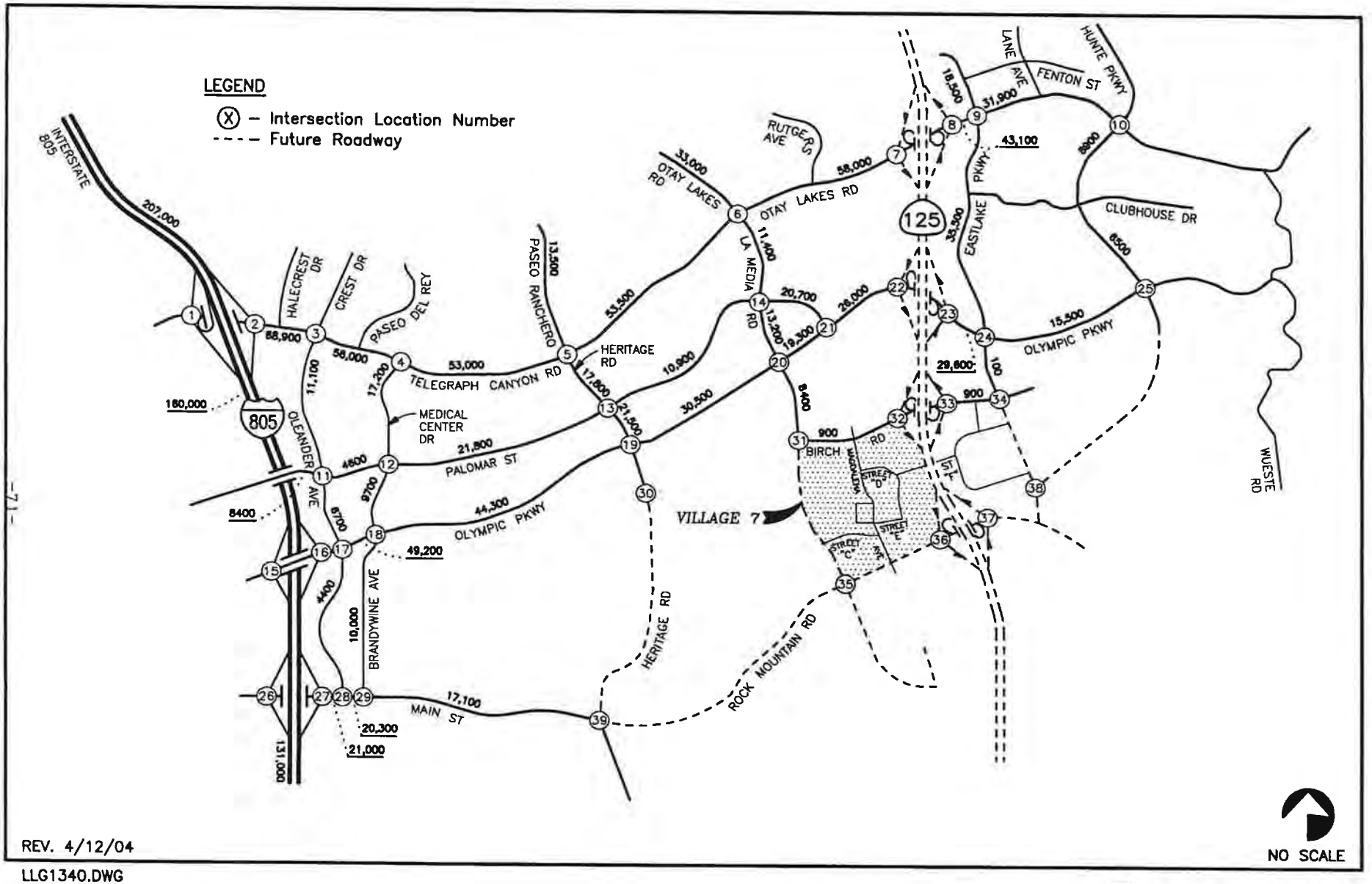

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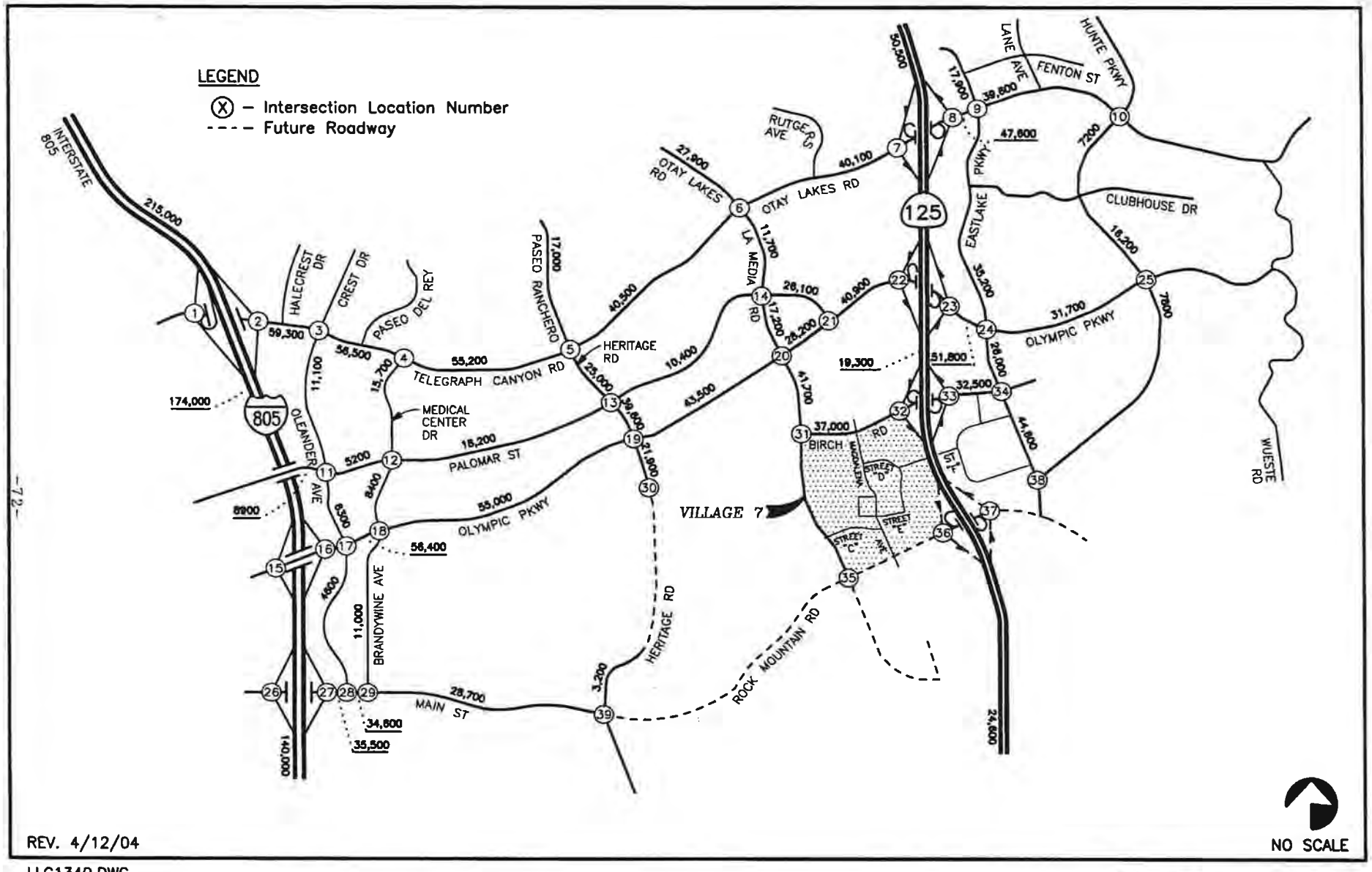
Figure 13

SCENARIO 6 (YEAR 2005) –ADT

OTAY RANCH VILLAGE 7



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NO SCALE

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Figure 14

SCENARIO 7 (YEAR 2010) –ADT

OTAY RANCH VILLAGE 7

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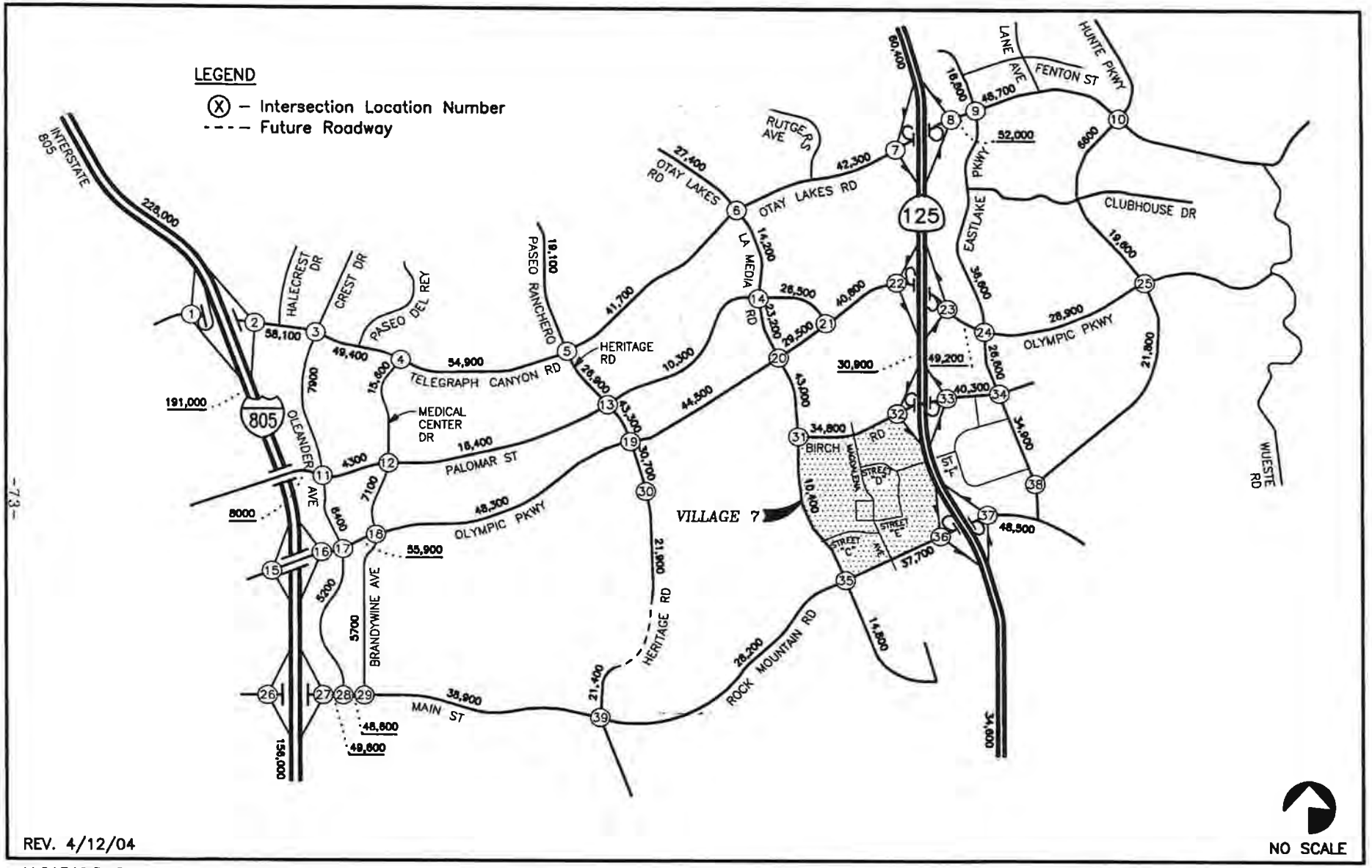

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NO SCALE

LLG1340.DWG

Figure 15

SCENARIO 8 (YEAR 2015) –ADT

OTAY RANCH VILLAGE 7

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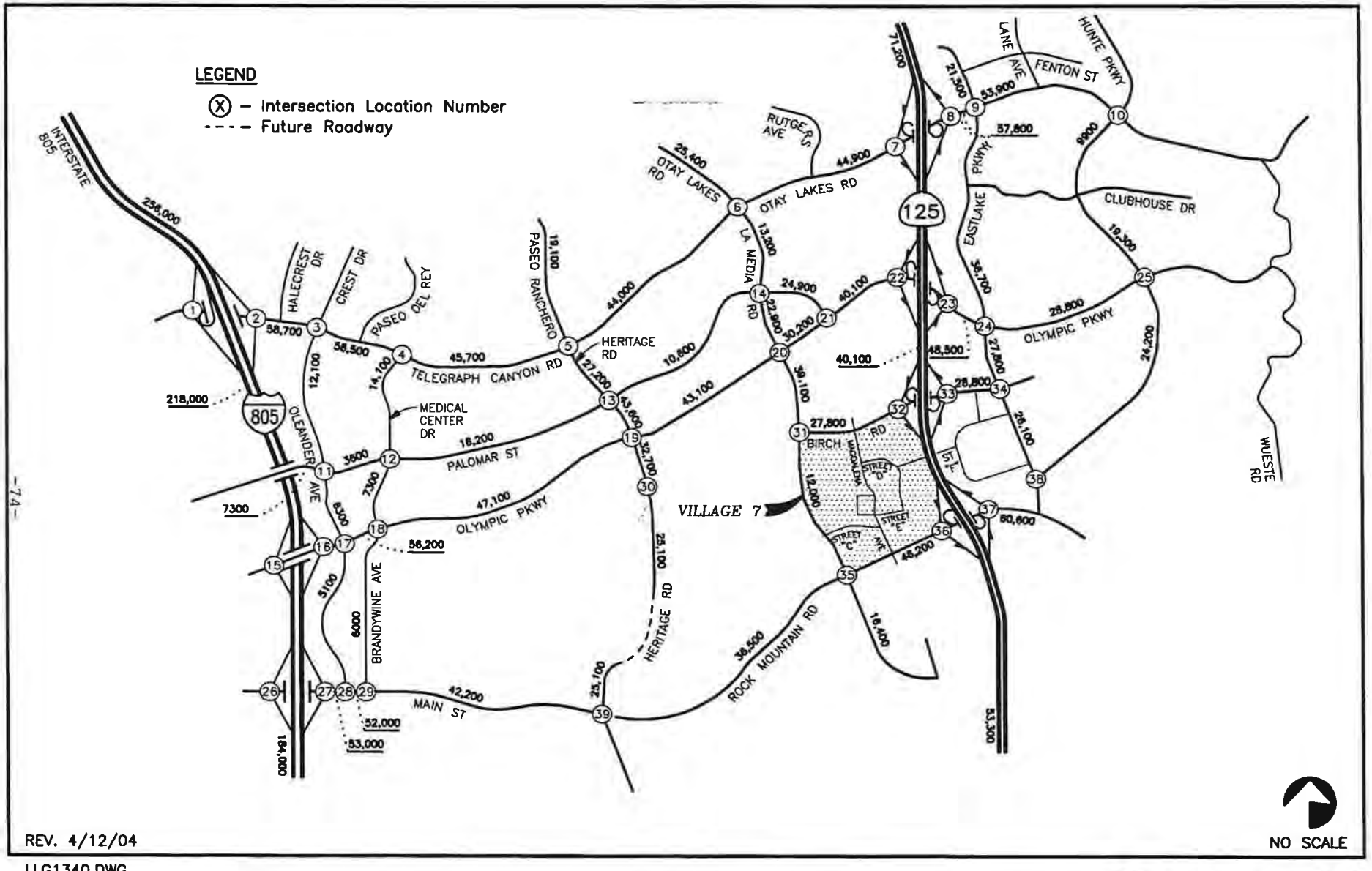

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Figure 16

SCENARIO 9 (YEAR 2030) –ADT

OTAY RANCH VILLAGE 7

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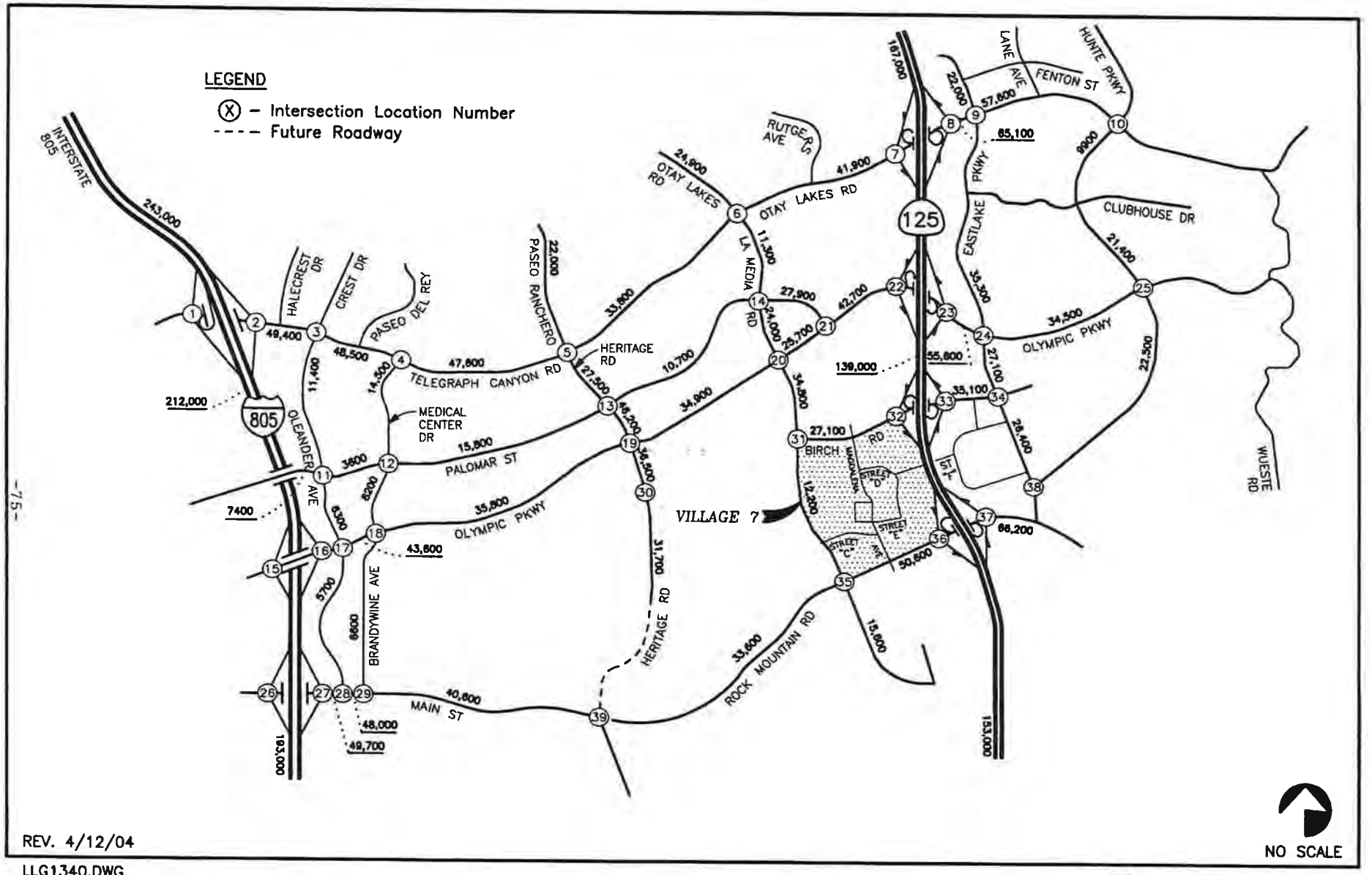

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LLG1340.DWG

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Figure 17

SCENARIO 10 (BUILDOUT) –ADT

OTAY RANCH VILLAGE 7

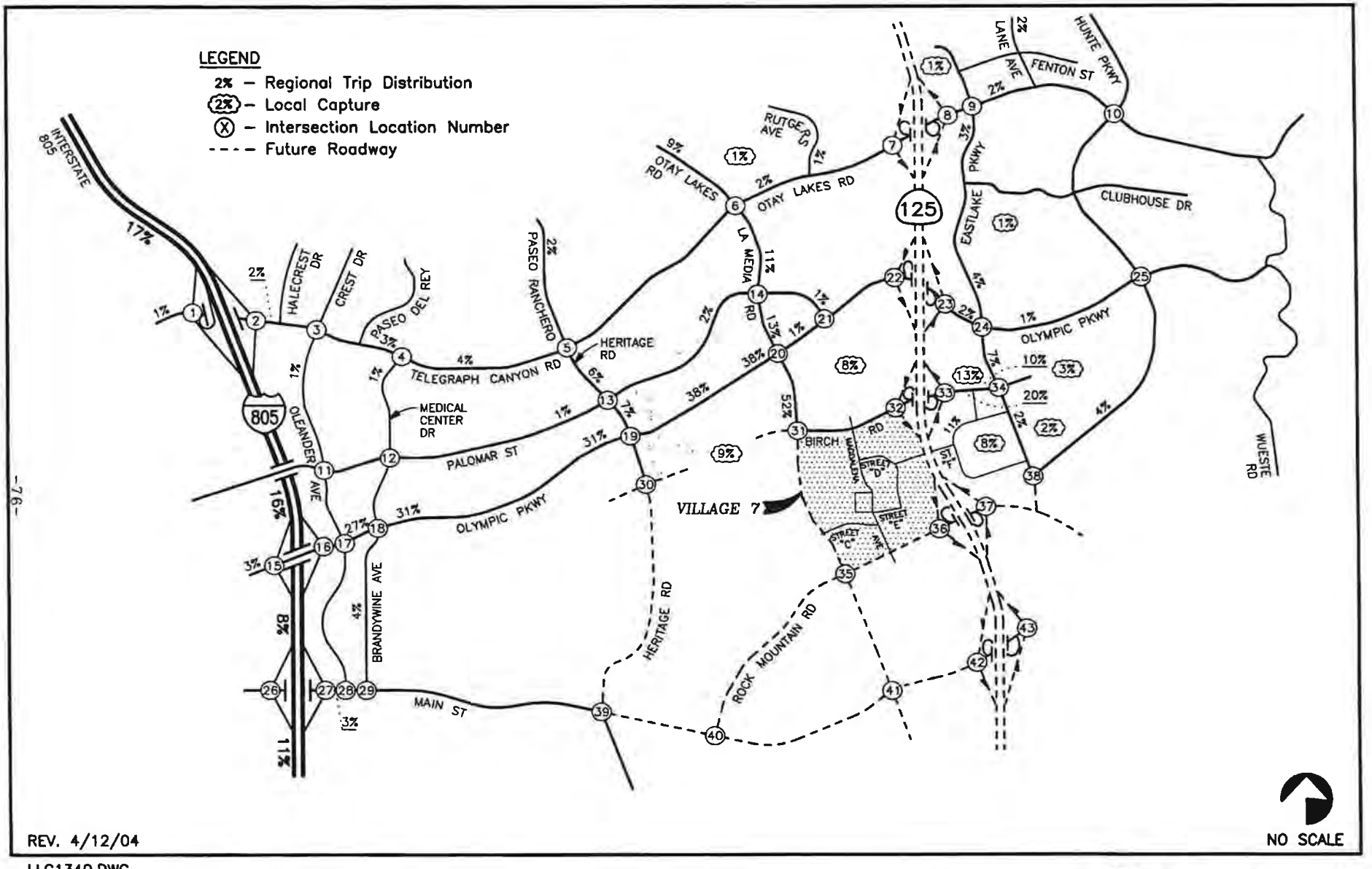

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Figure 18

YEAR 2005 PROJECT TRAFFIC DISTRIBUTION

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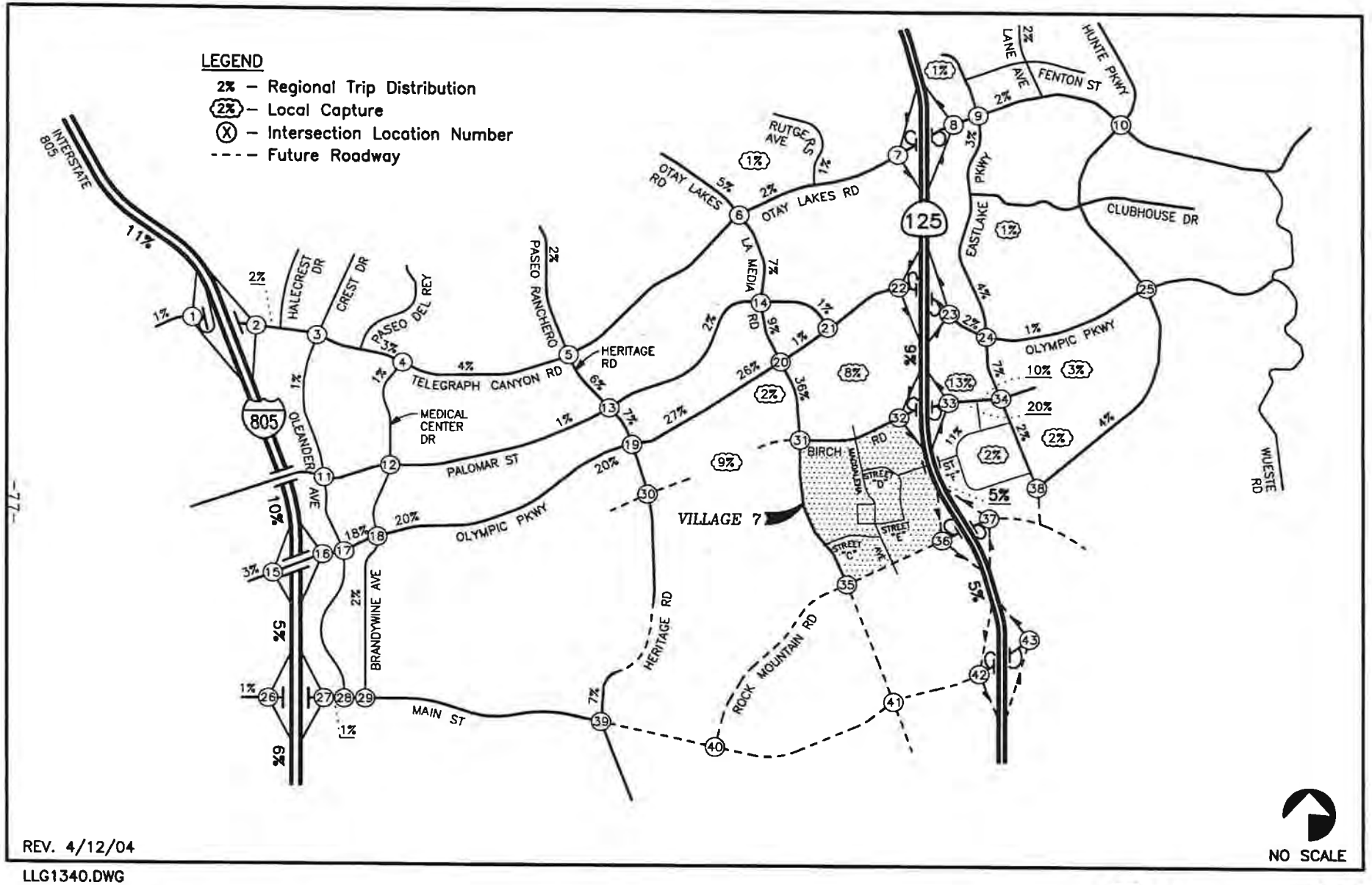
OTAY RANCH VILLAGE 7



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LLG1340.DWG

-77-

Figure 19

YEAR 2010 PROJECT TRAFFIC DISTRIBUTION

OTAY RANCH VILLAGE 7

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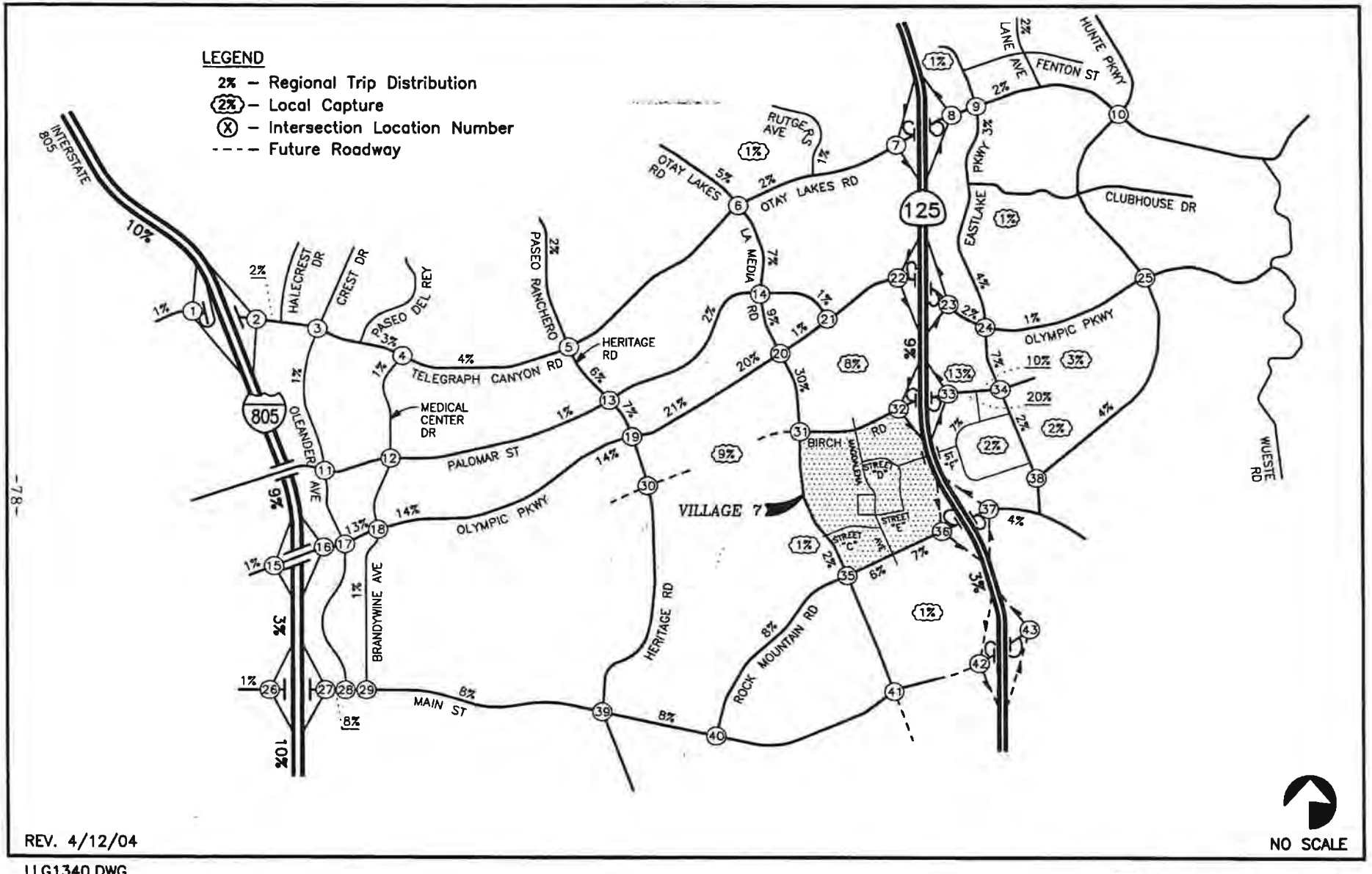

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Figure 20

YEAR 2015 PROJECT TRAFFIC DISTRIBUTION

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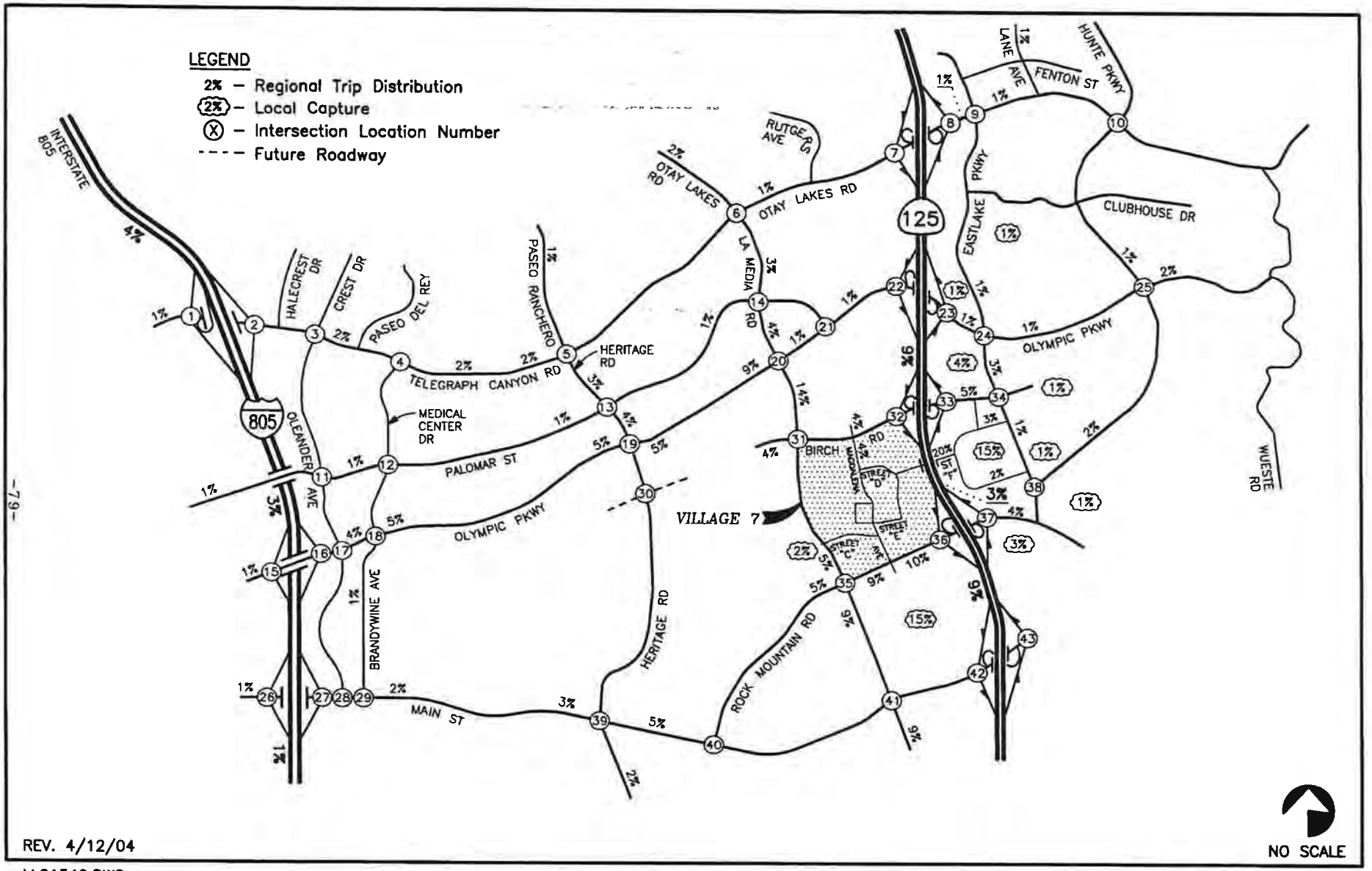
OTAY RANCH VILLAGE 7



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-79-

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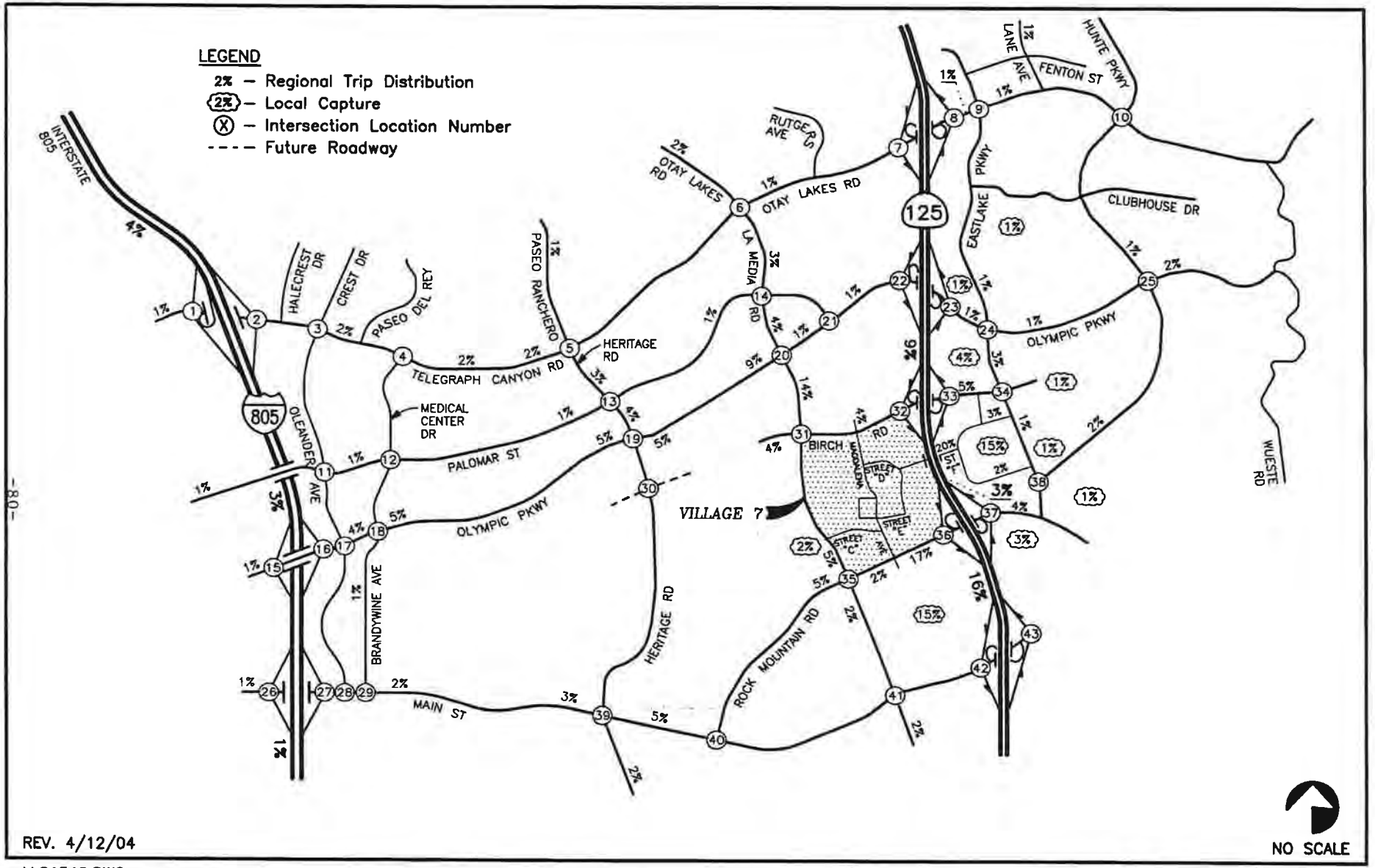
Figure 21

YEAR 2030 PROJECT TRAFFIC DISTRIBUTION

OTAY RANCH VILLAGE 7



LLG1340.DWG

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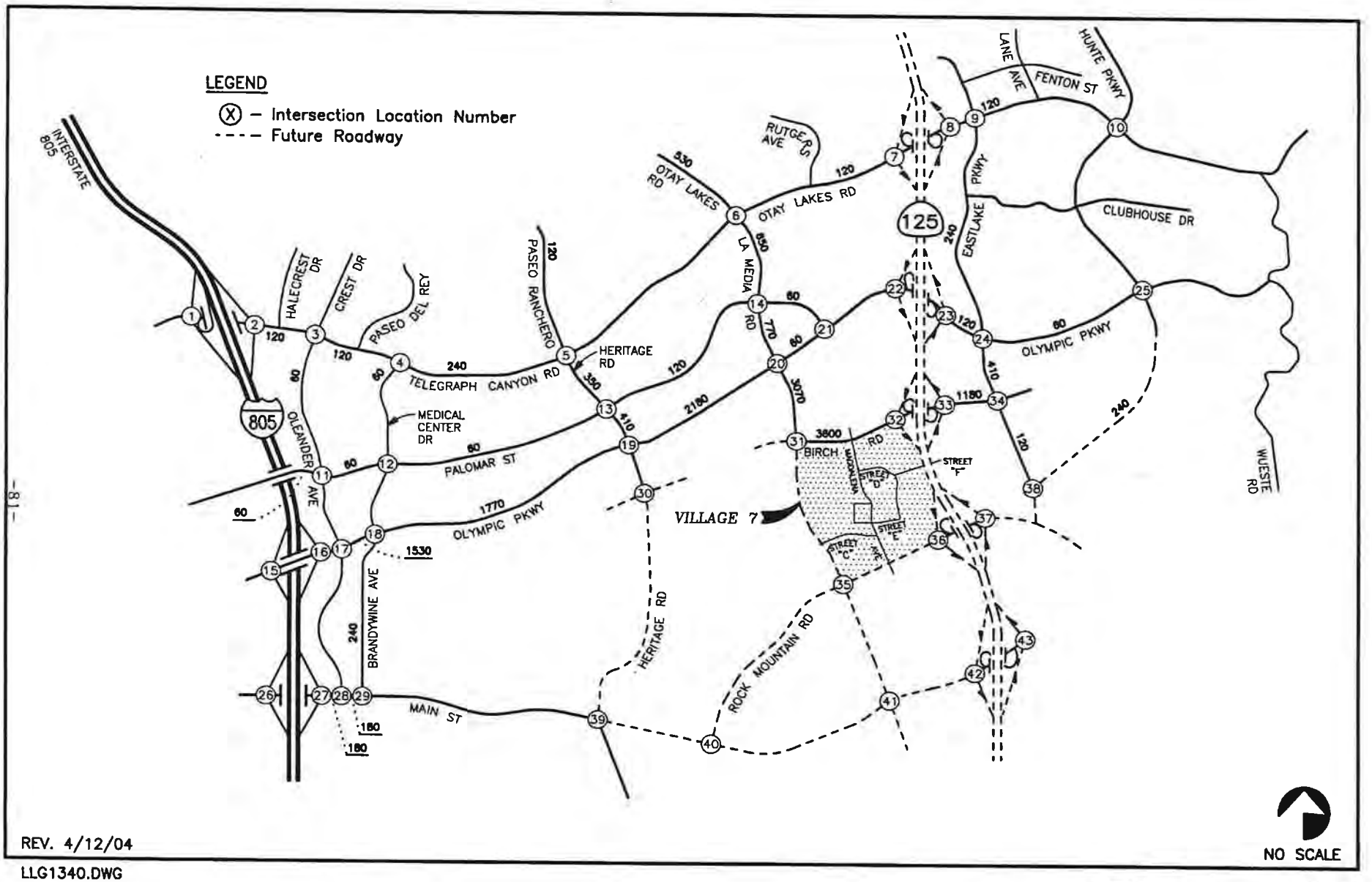
Figure 22

BUILDOUT PROJECT TRAFFIC DISTRIBUTION

OTAY RANCH VILLAGE 7



LLG1340.DWG

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Figure 23

SCENARIO 1 (YEAR 2005) –PROJECT ADTs

OTAY RANCH VILLAGE 7

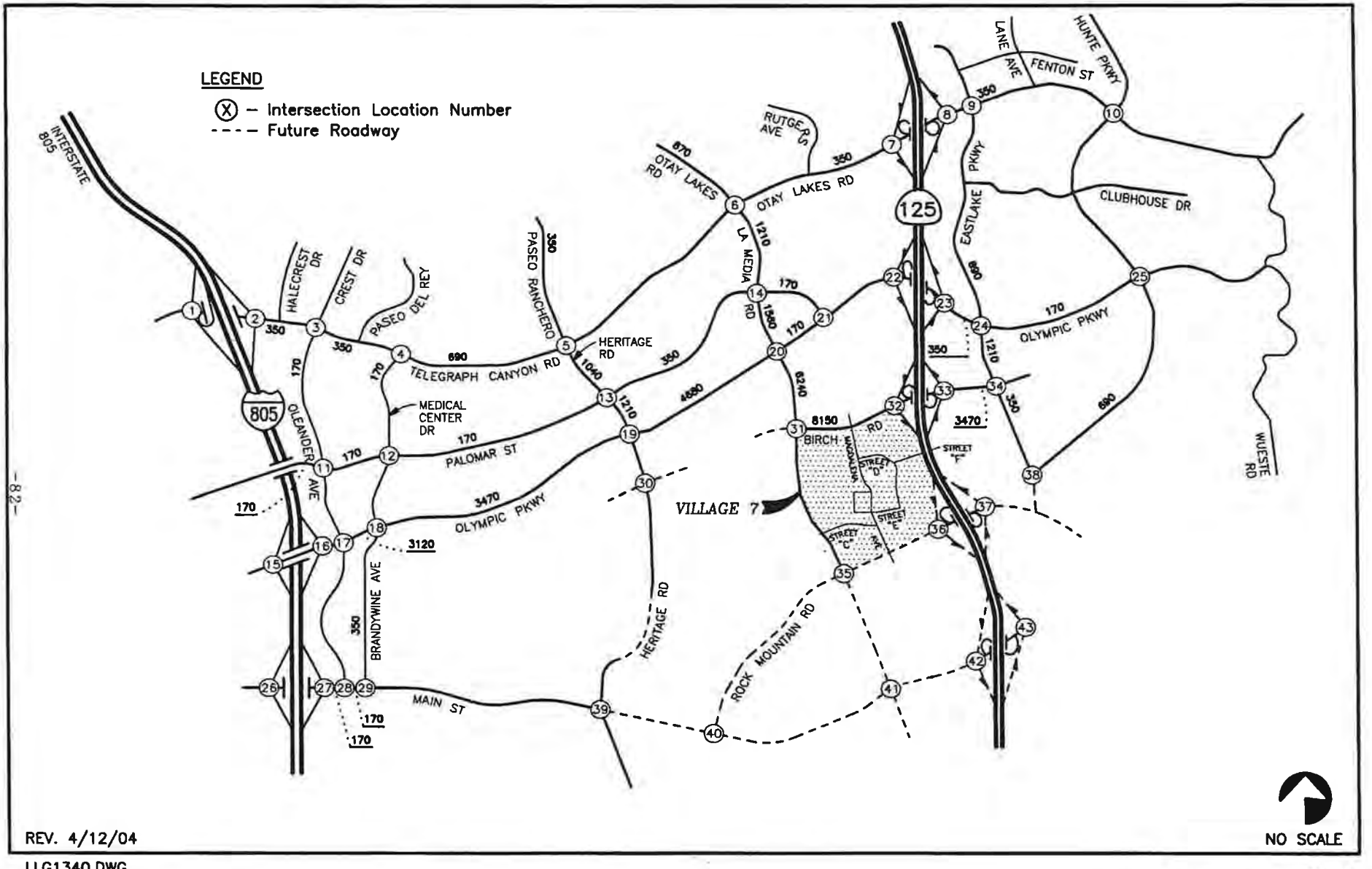

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Figure 24

SCENARIO 2 (YEAR 2010) –PROJECT ADTs

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OTAY RANCH VILLAGE 7

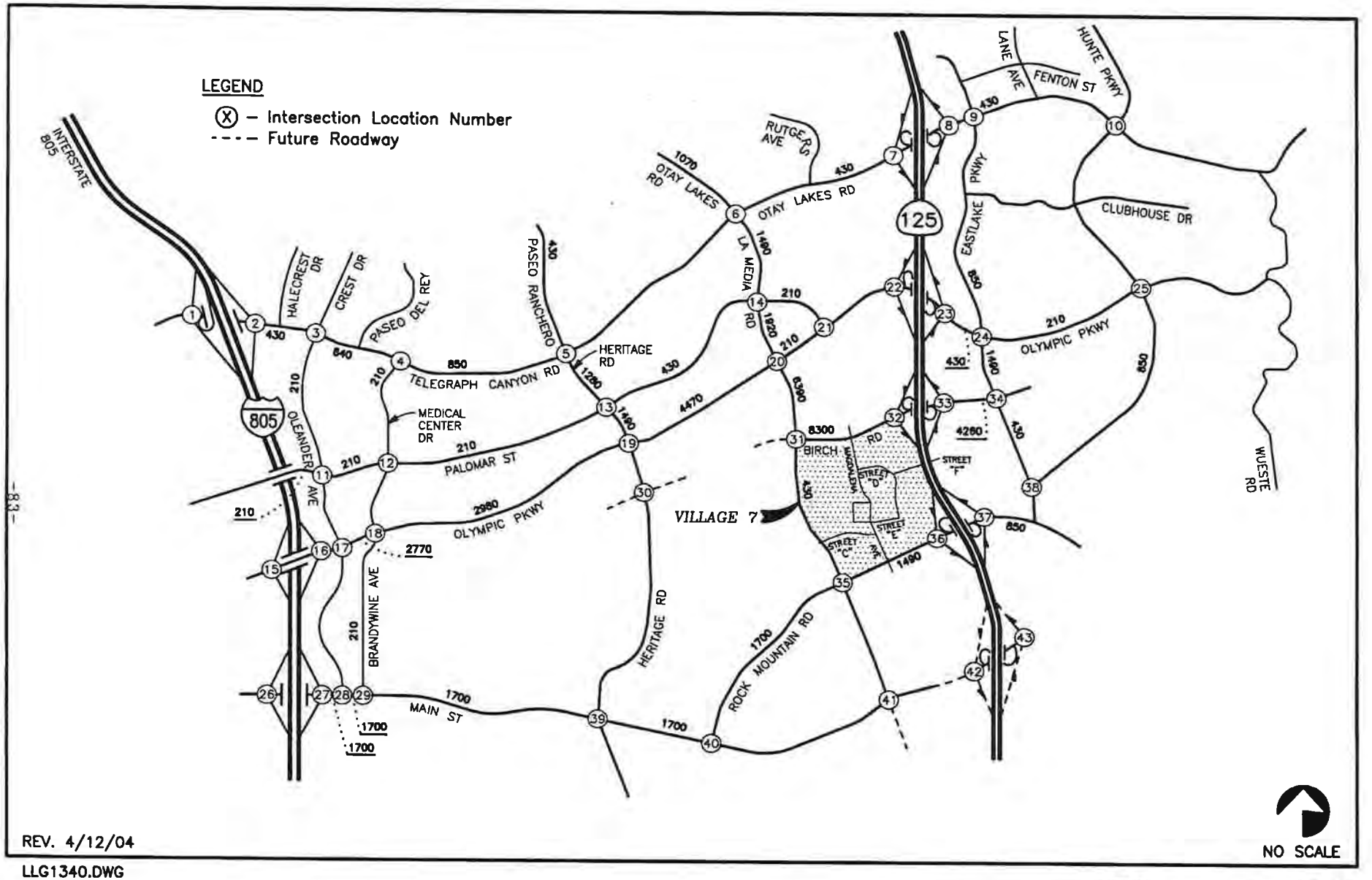

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Figure 25

SCENARIO 3 (YEAR 2015) –PROJECT ADTs

OTAY RANCH VILLAGE 7

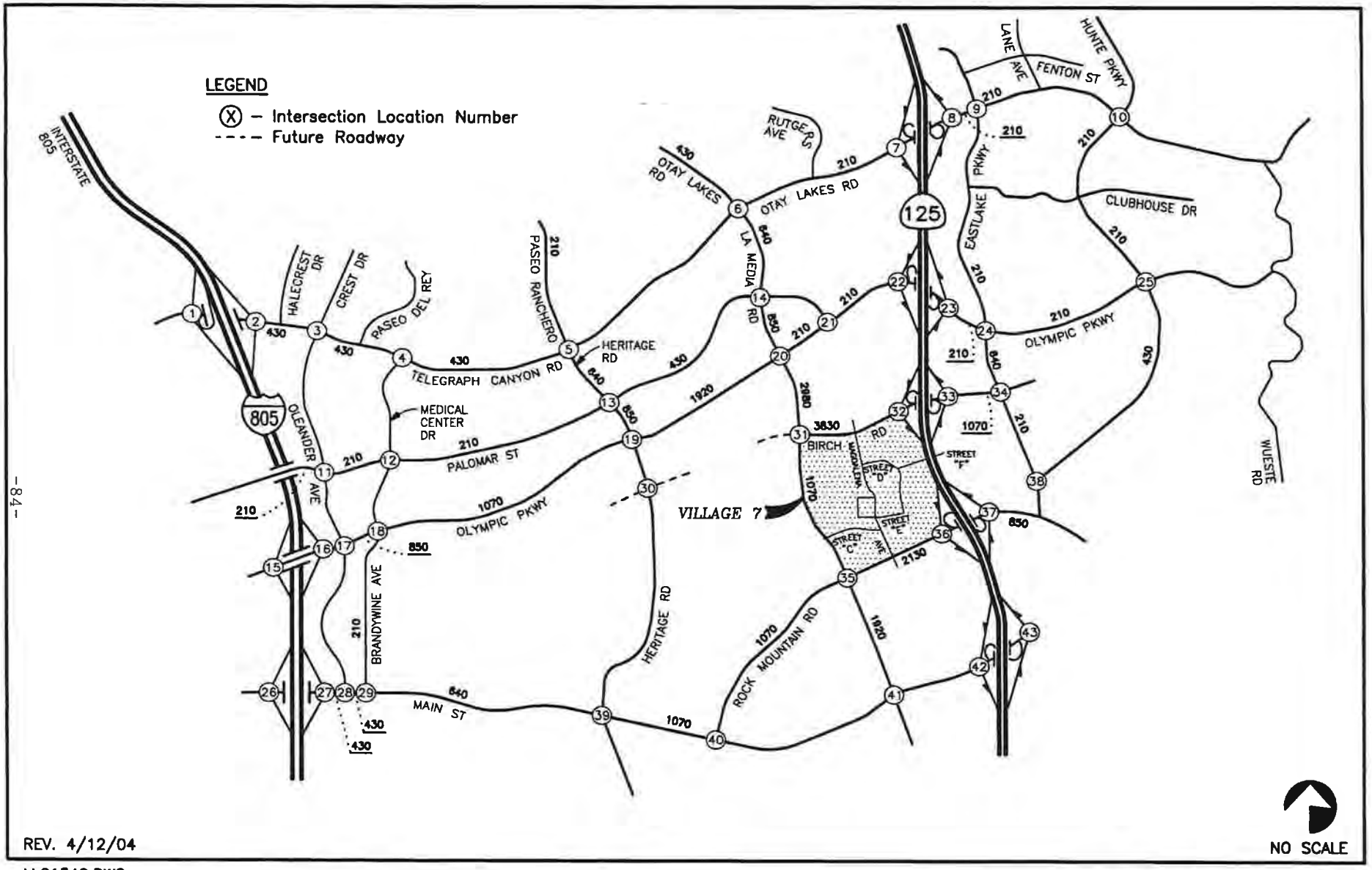

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Figure 26

SCENARIO 4 (YEAR 2030) –PROJECT ADTs

OTAY RANCH VILLAGE 7

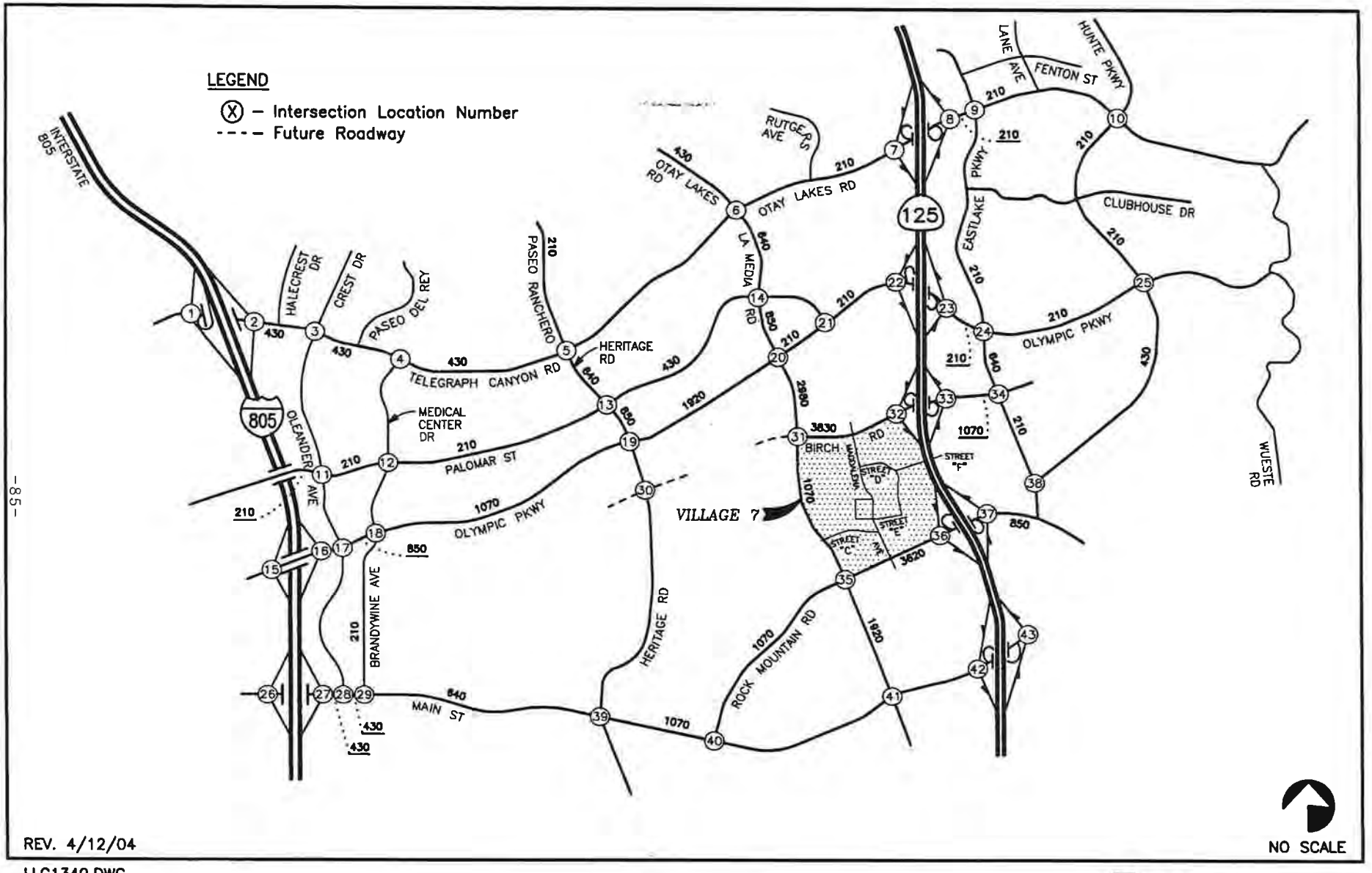

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Figure 27

SCENARIO 5 (BUILDOUT) –PROJECT ADTs

OTAY RANCH VILLAGE 7

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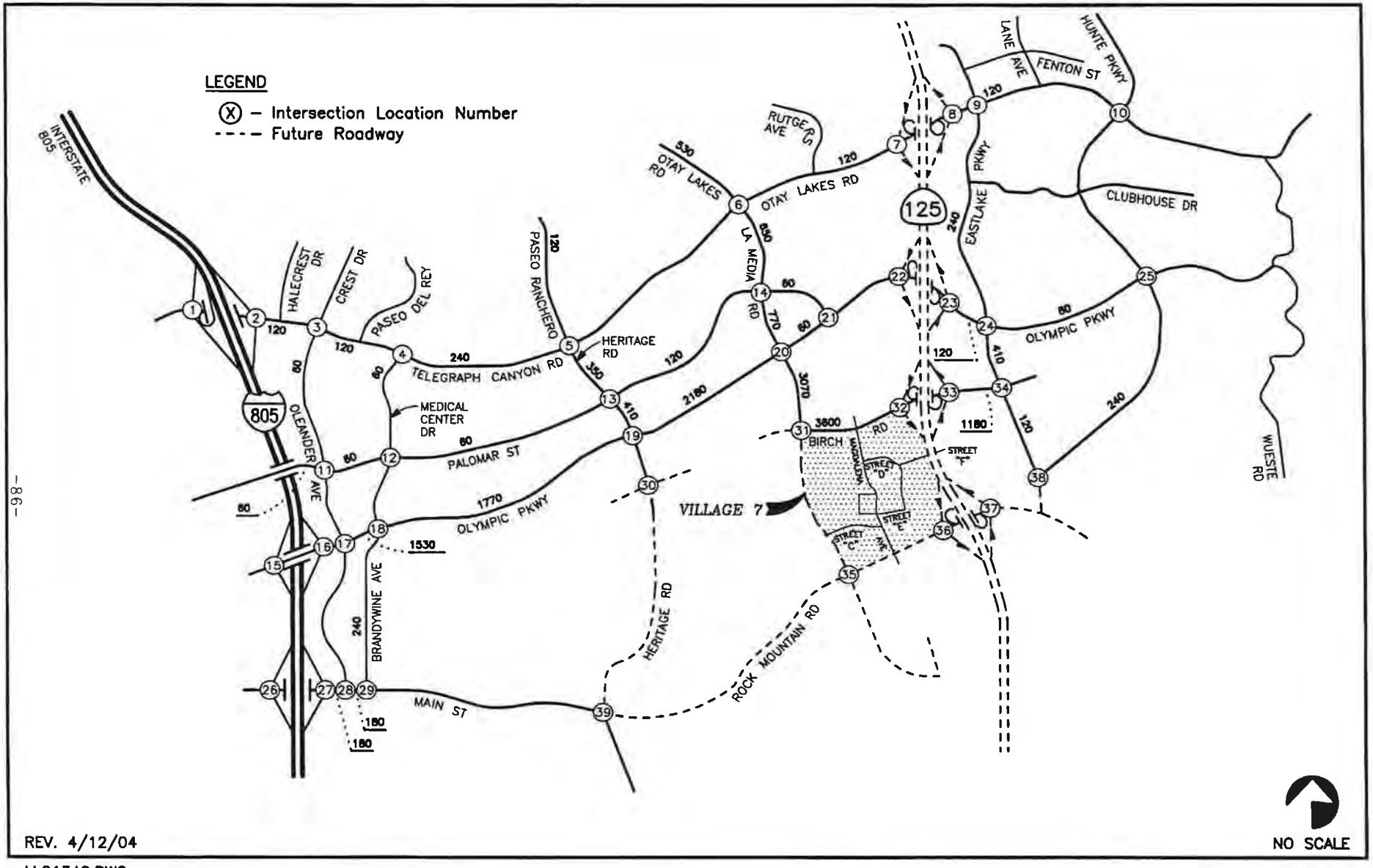

LLG1340.DWG

Figure 28

SCENARIO 6 (YEAR 2005) –PROJECT ADTs

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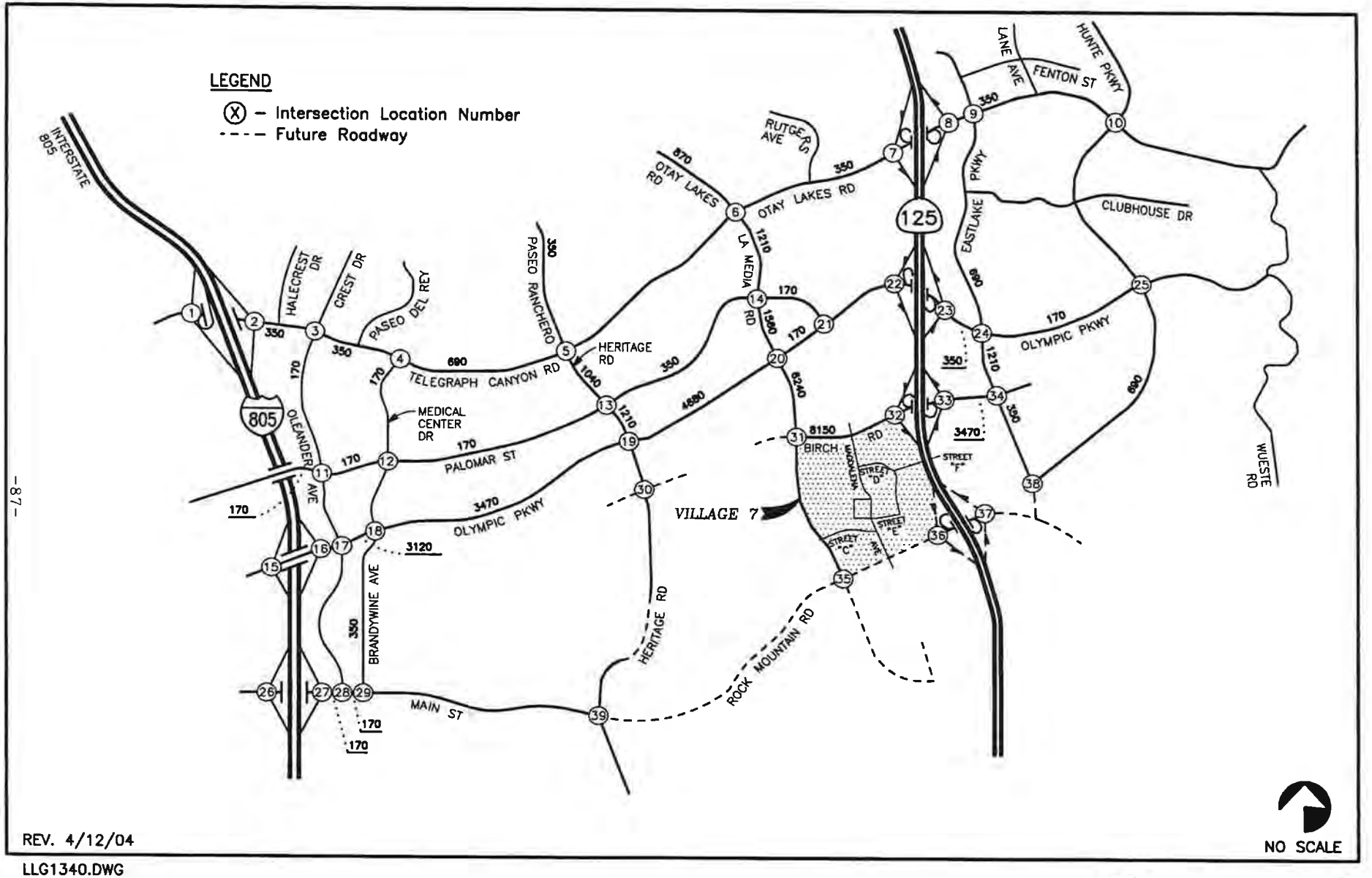
OTAY RANCH VILLAGE 7



REV. 4/12/04

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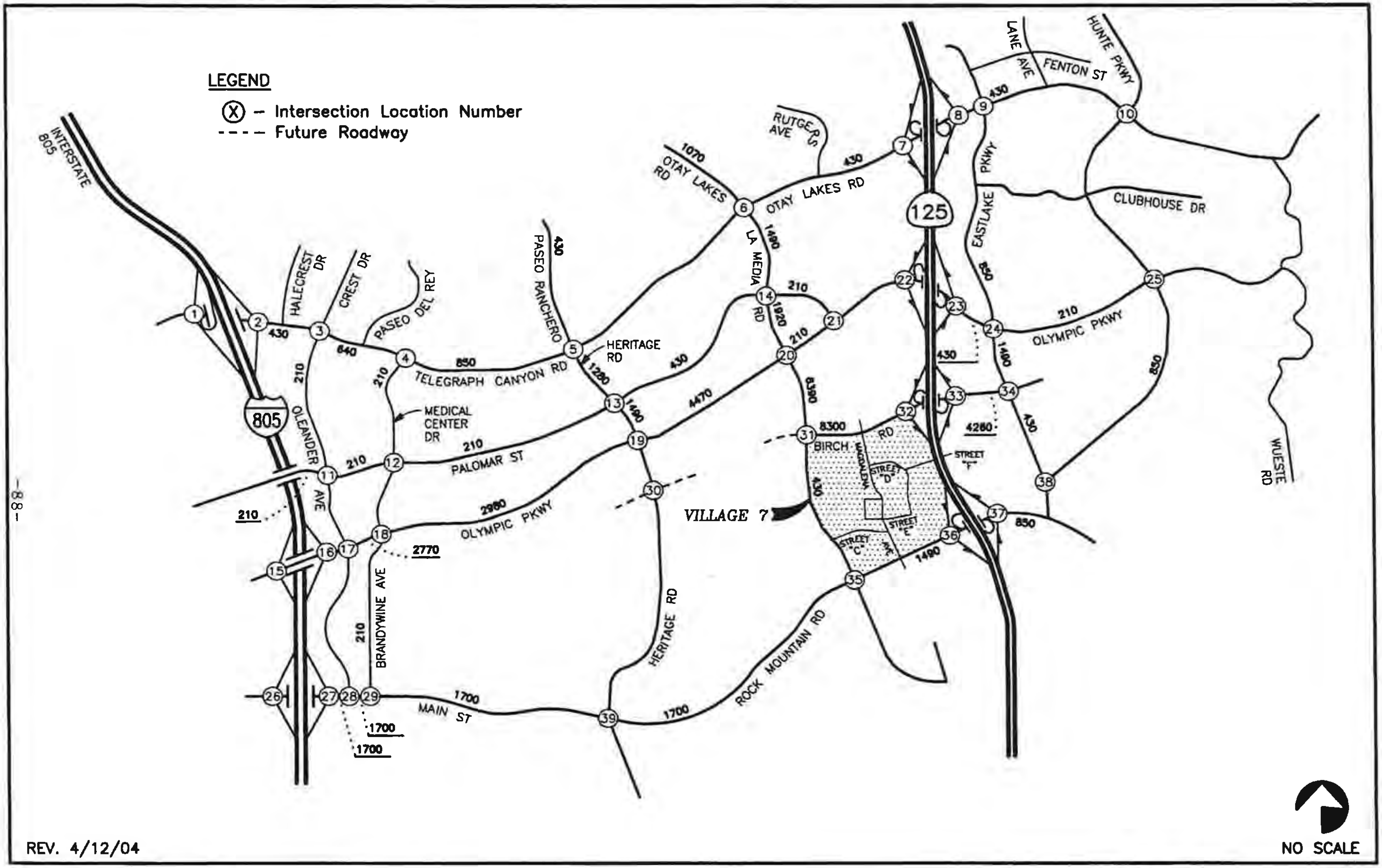
Figure 29

SCENARIO 7 (YEAR 2010) –PROJECT ADTs

OTAY RANCH VILLAGE 7



LLG1340.DWG

Figure 30

SCENARIO 8 (YEAR 2015) –PROJECT ADTs

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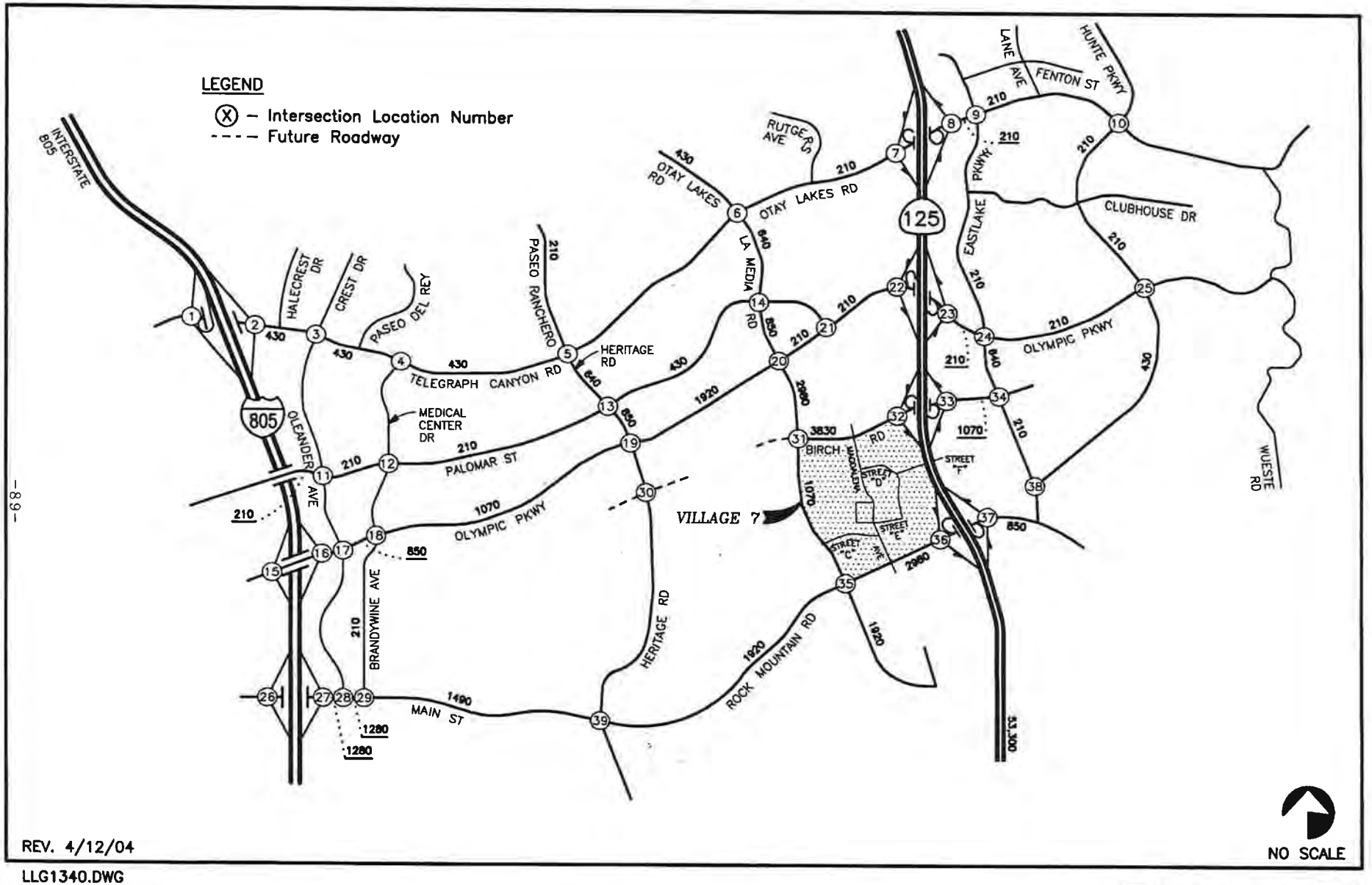

REV. 4/12/04

LLG1340.DWG

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Figure 31

SCENARIO 9 (YEAR 2030) –PROJECT ADTs

OTAY RANCH VILLAGE 7

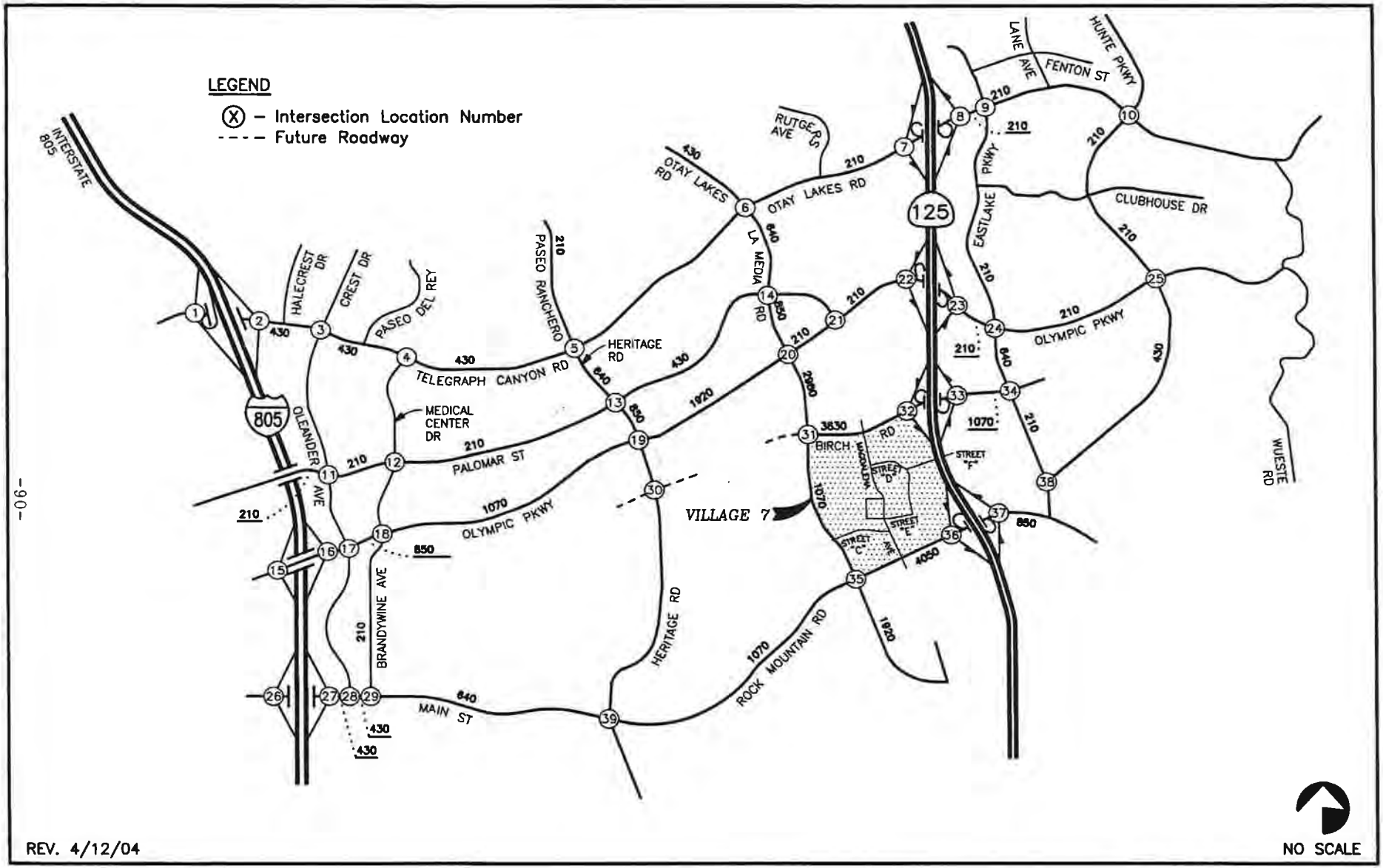

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Figure 32

SCENARIO 10 (BUILDOUT) –PROJECT ADTs

OTAY RANCH VILLAGE 7

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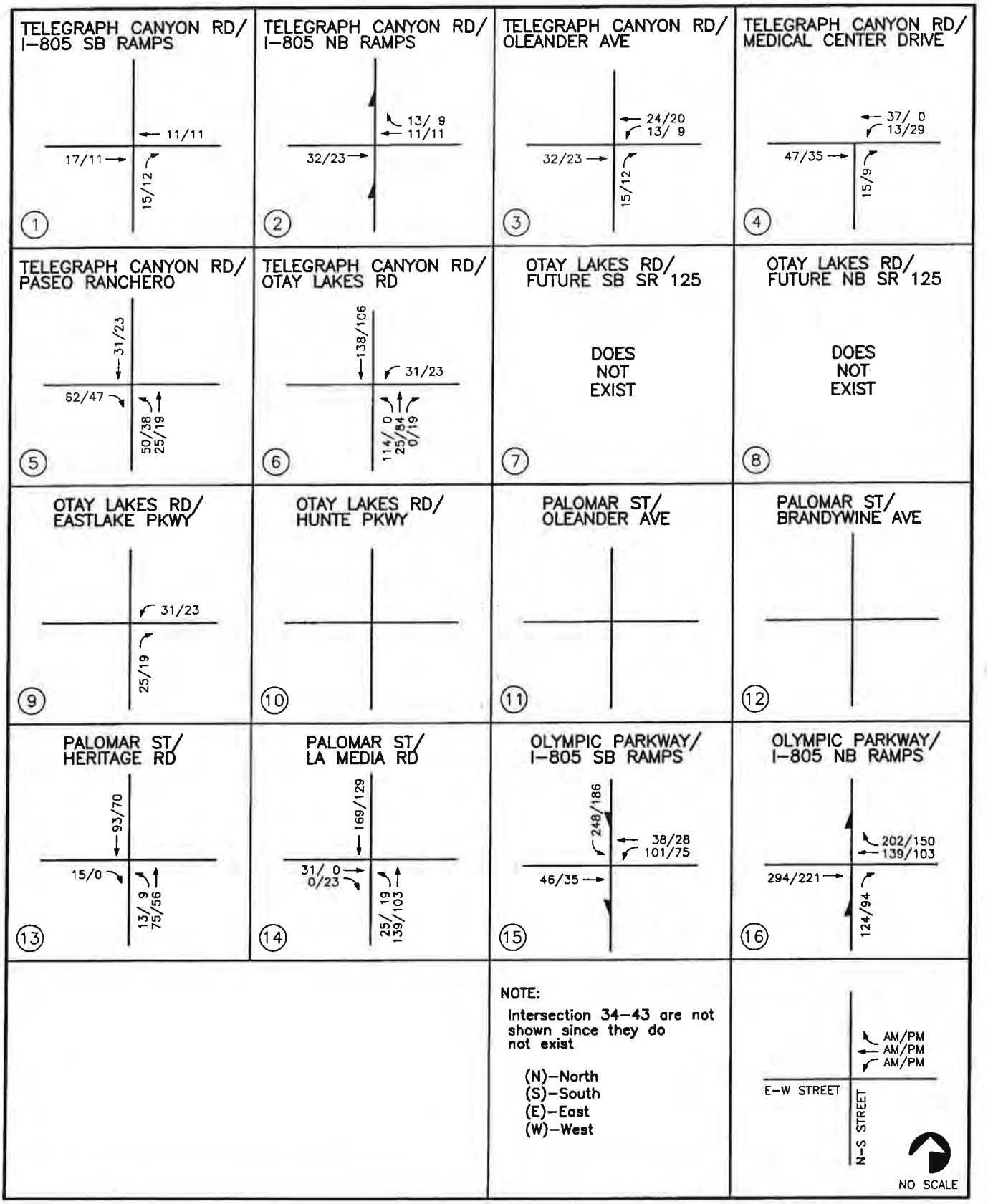

REV. 6/2/04
LLG1340.DWG

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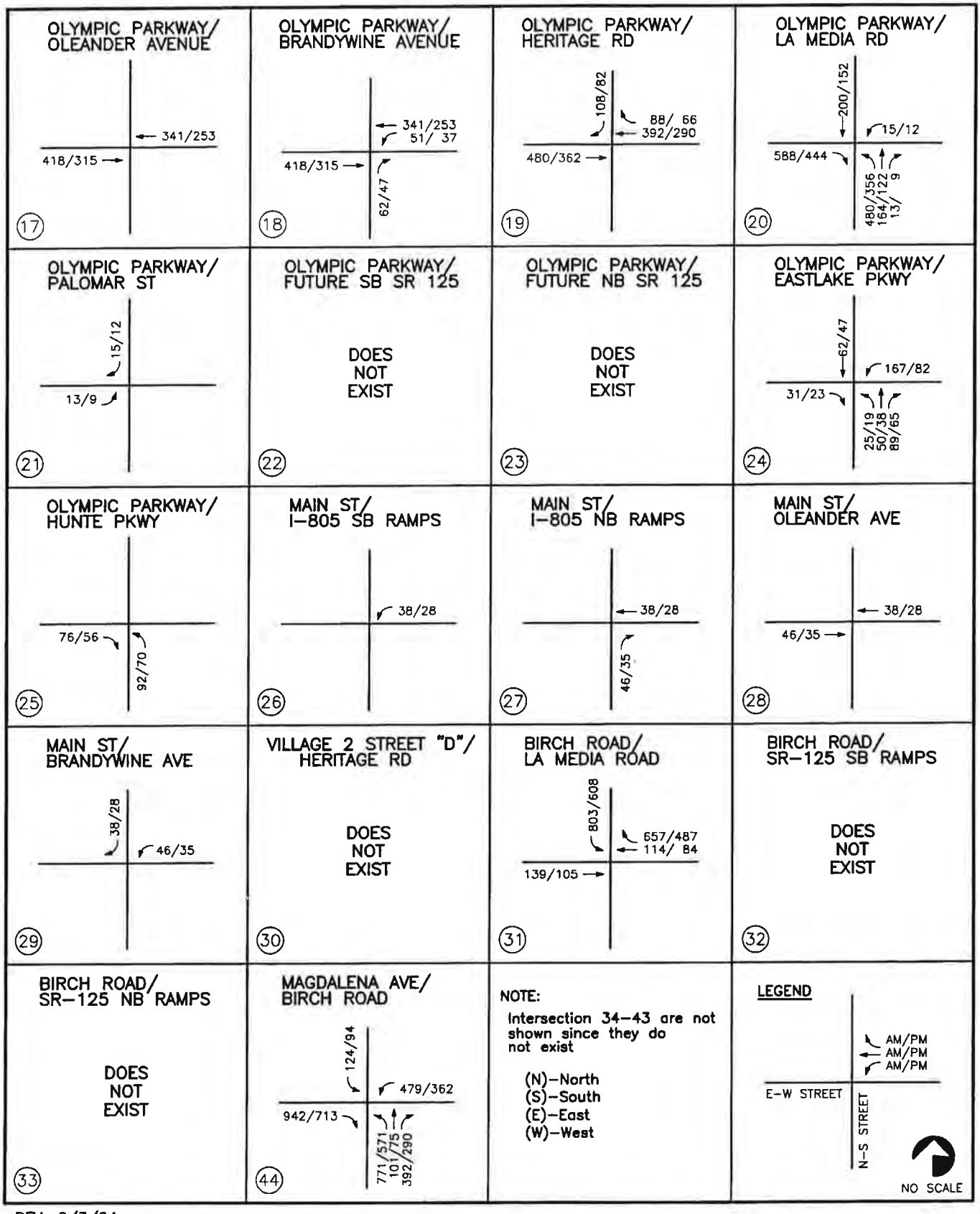
Figure 33

(1 OF 2)

PROJECT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7



REV. 6/3/04
LLG1340.DWG

Figure 33
(2 OF 2)

PROJECT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7

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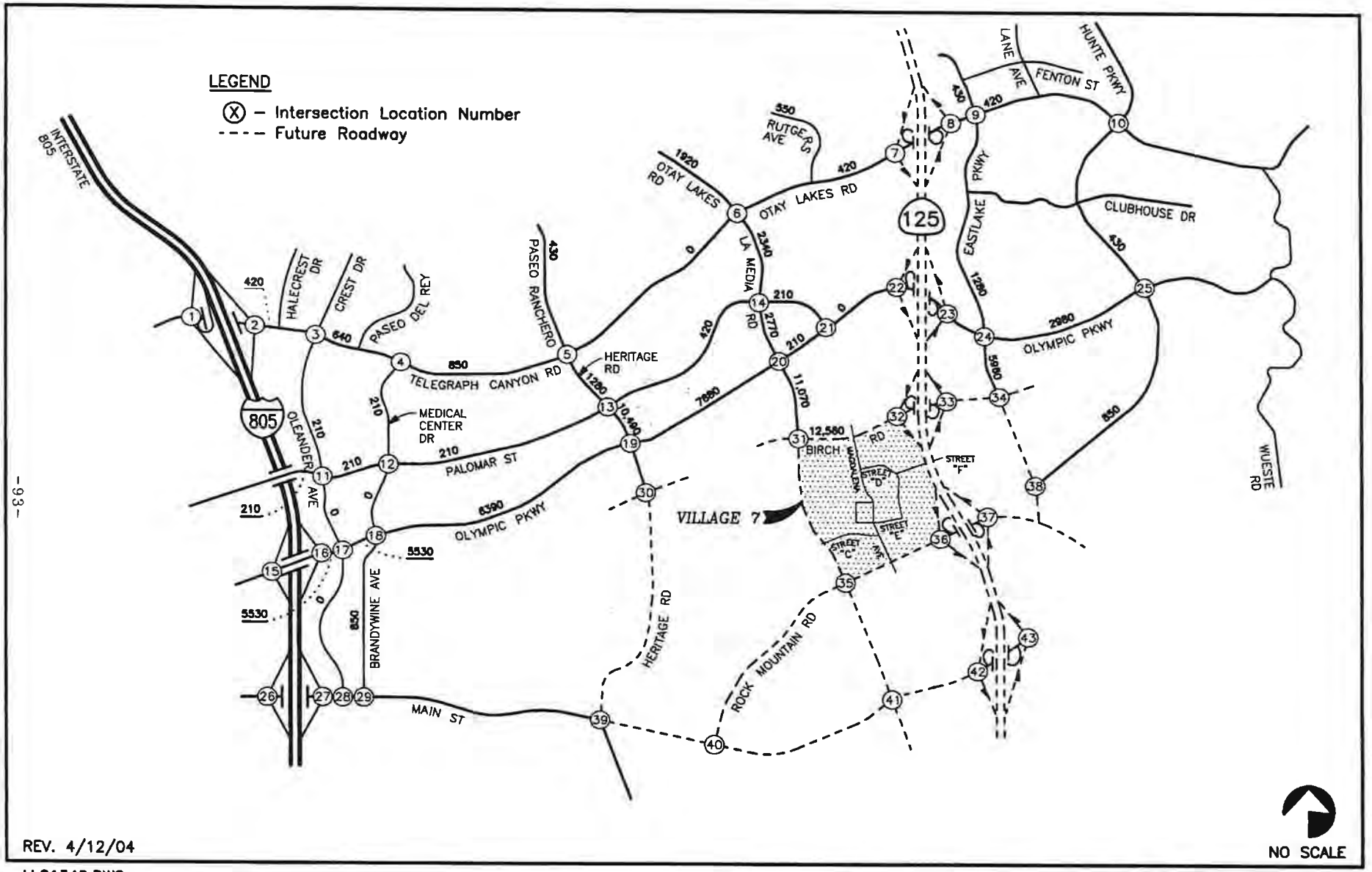

REV. 4/12/04

LLG1340.DWG

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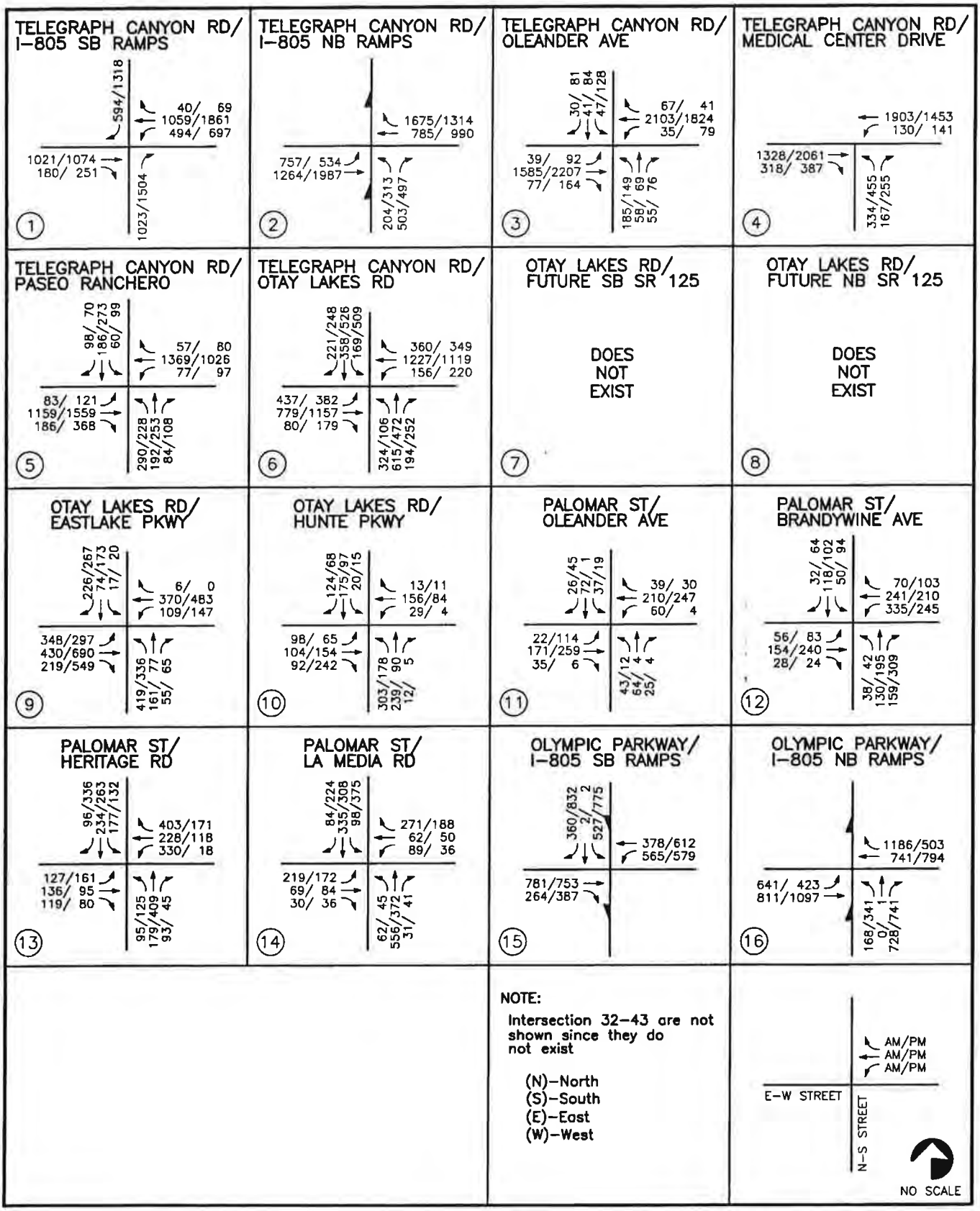
Figure 34

PROJECT TRAFFIC VOLUMES ADT

OTAY RANCH VILLAGE 7



REV. 6/2/04
LLG1340.DWG

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Figure 35
(1 OF 2)

EXISTING + PROJECT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7

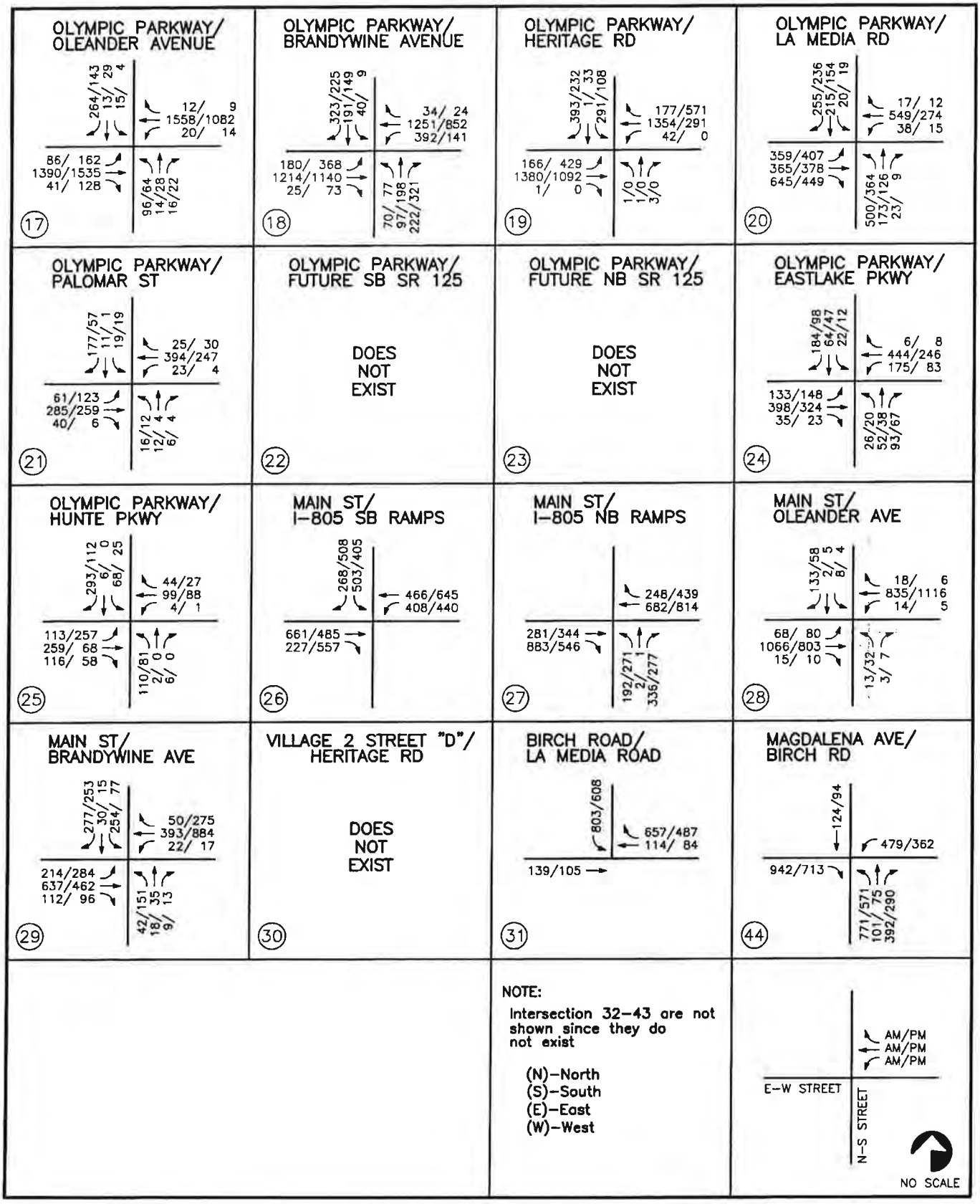

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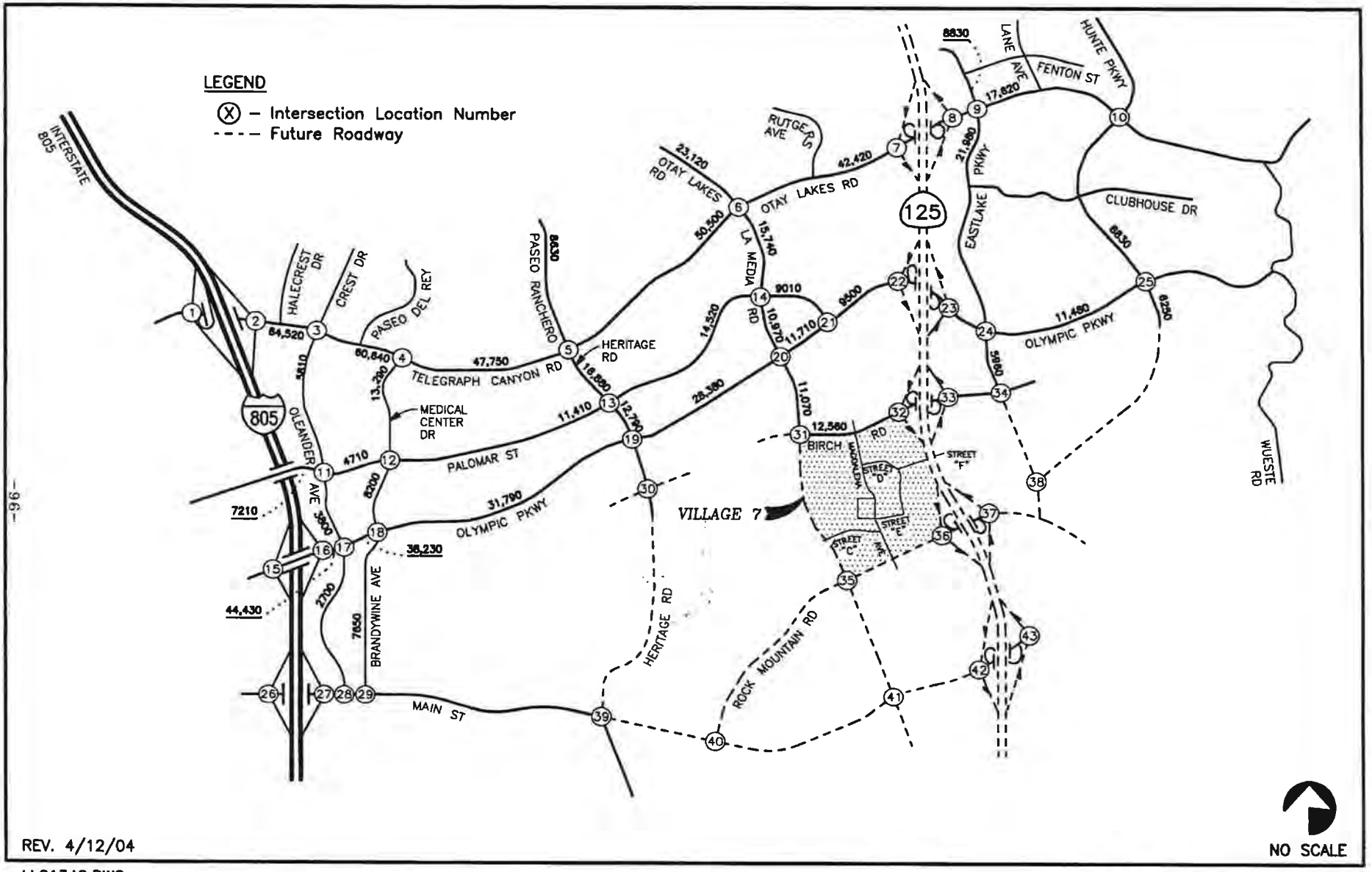
Figure 35
(2 OF 2)

EXISTING + PROJECT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7



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NO SCALE

Figure 36

EXISTING + PROJECT TRAFFIC VOLUMES ADT

OTAY RANCH VILLAGE 7

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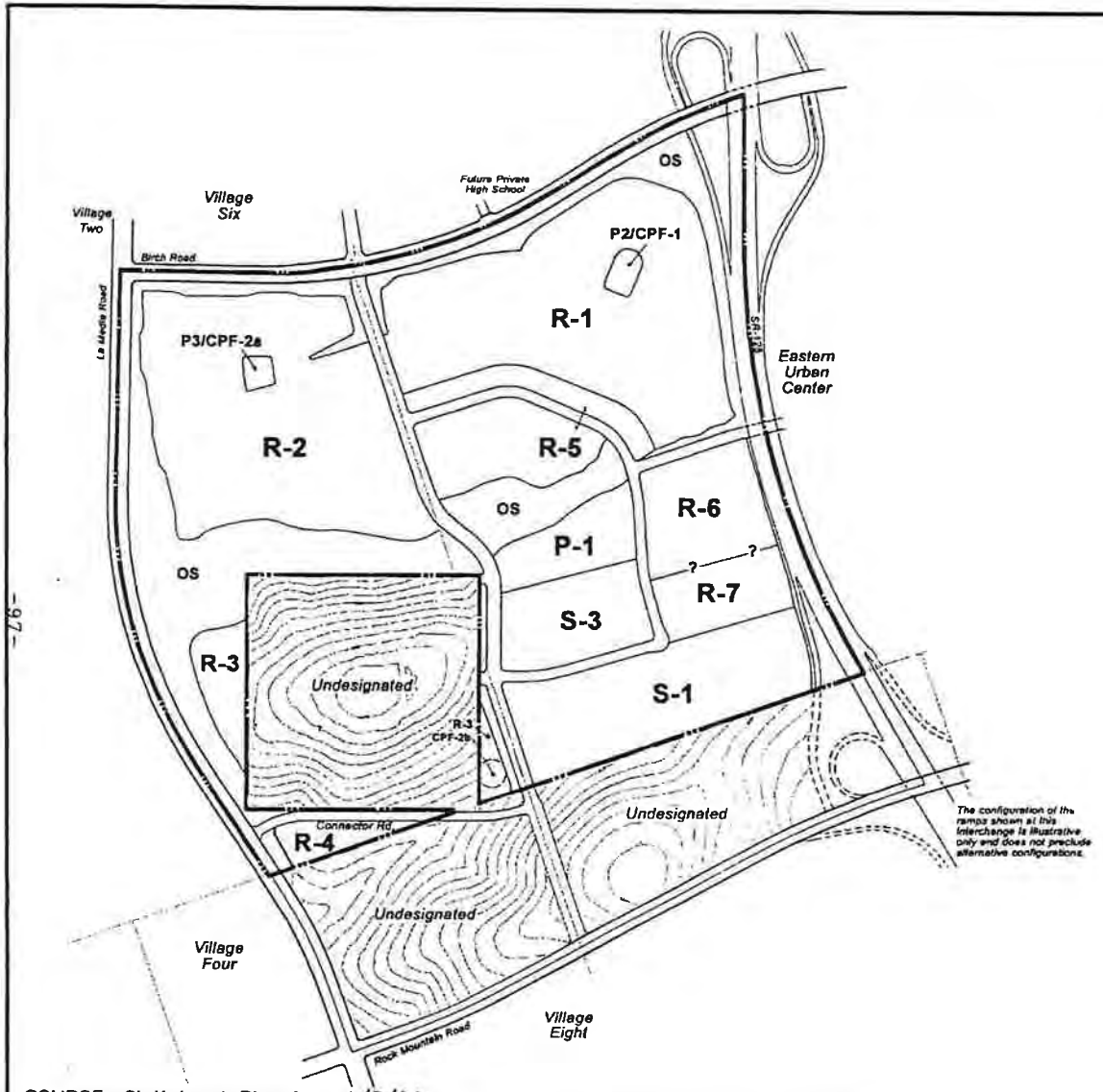

SOURCE: Cinti Land Planning, 4/8/04

NO SCALE

RESIDENTIAL

Neighborhood	Land Use	Acres	du/ac	DU
R-1	SFD	50.7	6.8	346
R-2	SFD	50.5	7.4	375
R-3	SFD *(Designated)*	5.3	4.2	22
R-4	SFD *(Designated)*	3.1	4.2	13
Sub-total SFD		*109.6*	*6.9*	*756*
R-5	MF/SF Cluster	17.4	8.2	142
R-6	MF/SF Cluster*	12.5	15.0	187
R-7	MF*	8.0	14.9	119
Sub-total MF		*37.9*	*11.8*	*448*
Total Residential		147.5	8.2	1,204

NON-RESIDENTIAL

Neighborhood	Land Use	Acres
P-1	Public Park	7.6 *(7.0 ac net req'd)*
P2/CPF-1	CPF *(Common OS)*	1.1
P3/CPF-2a	CPF *(Common OS)*	0.7
CPF-2b	CPF	1.0
S-1	High School *(Designated)*	23.4
S-3	Elem. School	11.1
OS	Open Space *(Designated)*	47.8
Undesignated	Undesignated Uses	121.3
Clr.	Circulation	62.9
Total Non-Residential		276.9
VILLAGE TOTAL		424.4

** Refer to SPA Text for provisions to blend these two parcels.*

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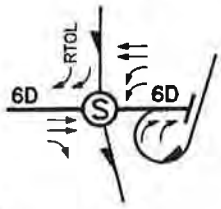
Figure 36a

PARTIAL VILLAGE 7 DEVELOPMENT

OTAY RANCH VILLAGE 7

TELEGRAPH CANYON RD/
I–805 SB RAMPS



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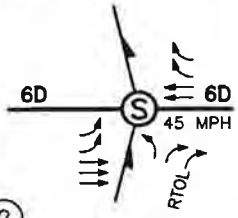
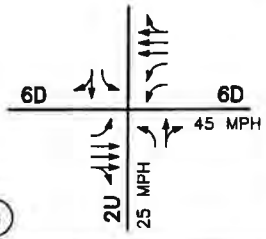
TELEGRAPH CANYON RD/
I–805 NB RAMPS



2

TELEGRAPH CANYON RD/
OLEANDER AVE



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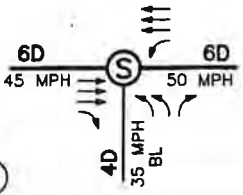
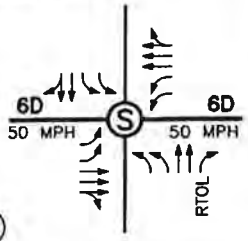
TELEGRAPH CANYON RD/
MEDICAL CENTER DRIVE



4

TELEGRAPH CANYON RD/
PASEO RANCHERO



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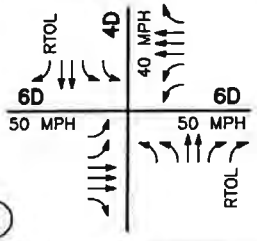
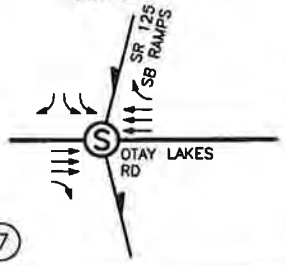
TELEGRAPH CANYON RD/
OTAY LAKES RD



6

OTAY LAKES RD/
FUTURE SB SR 125



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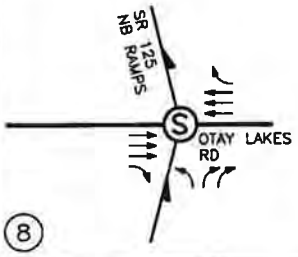
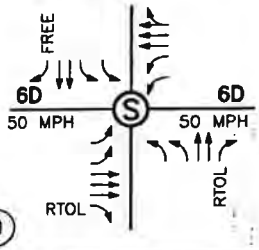
OTAY LAKES RD/
FUTURE NB SR 125



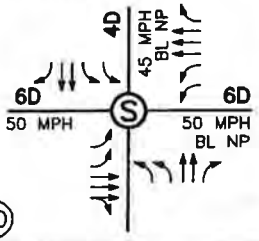
8

OTAY LAKES RD/
EASTLAKE PKWY



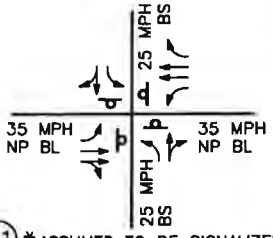
9

OTAY LAKES RD/
HUNTE PKWY



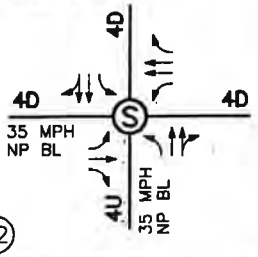
10

PALOMAR ST/
OLEANDER AVE



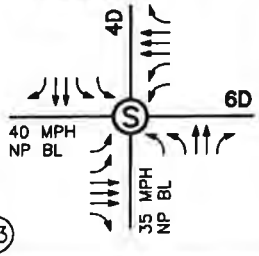
11 *ASSUMED TO BE SIGNALIZED FROM 2015

PALOMAR ST/
MEDICAL CENTER DR



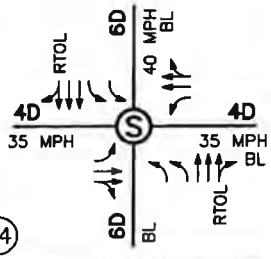
12

PALOMAR ST/
HERITAGE RD



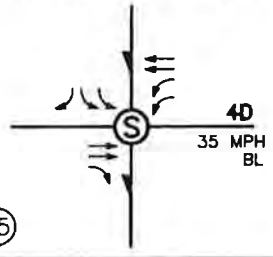
13

PALOMAR ST/
LA MEDIA RD



14

OLYMPIC PARKWAY/
I–805 SB RAMPS



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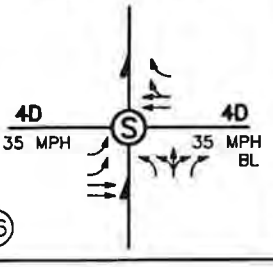
OLYMPIC PARKWAY/
I–805 NB RAMPS



16

LEGEND

2U – Two lane undivided roadway
4U – Four lane undivided roadway
6U – Six lane undivided roadway
4D – Four lane divided roadway
6D – Six lane divided roadway
BL – Bike lane
BS – Bus stop
NP – No parking
TWLTL – Two way Left–turn lane
RTOL – Right turn overlap
XXmph – Posted speed limit

NOTES:
– Geometry for intersections 33, 36 & 37 obtained from SR–125 Tollway LOS Study, August 2003.

(N)–North
(S)–South
(E)–East
(W)–West

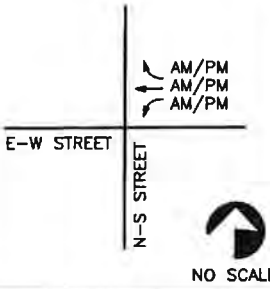


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Figure 37
(1 OF 3)

YEAR 2010 & BEYOND INTERSECTION GEOMETRY

OTAY RANCH VILLAGE 7

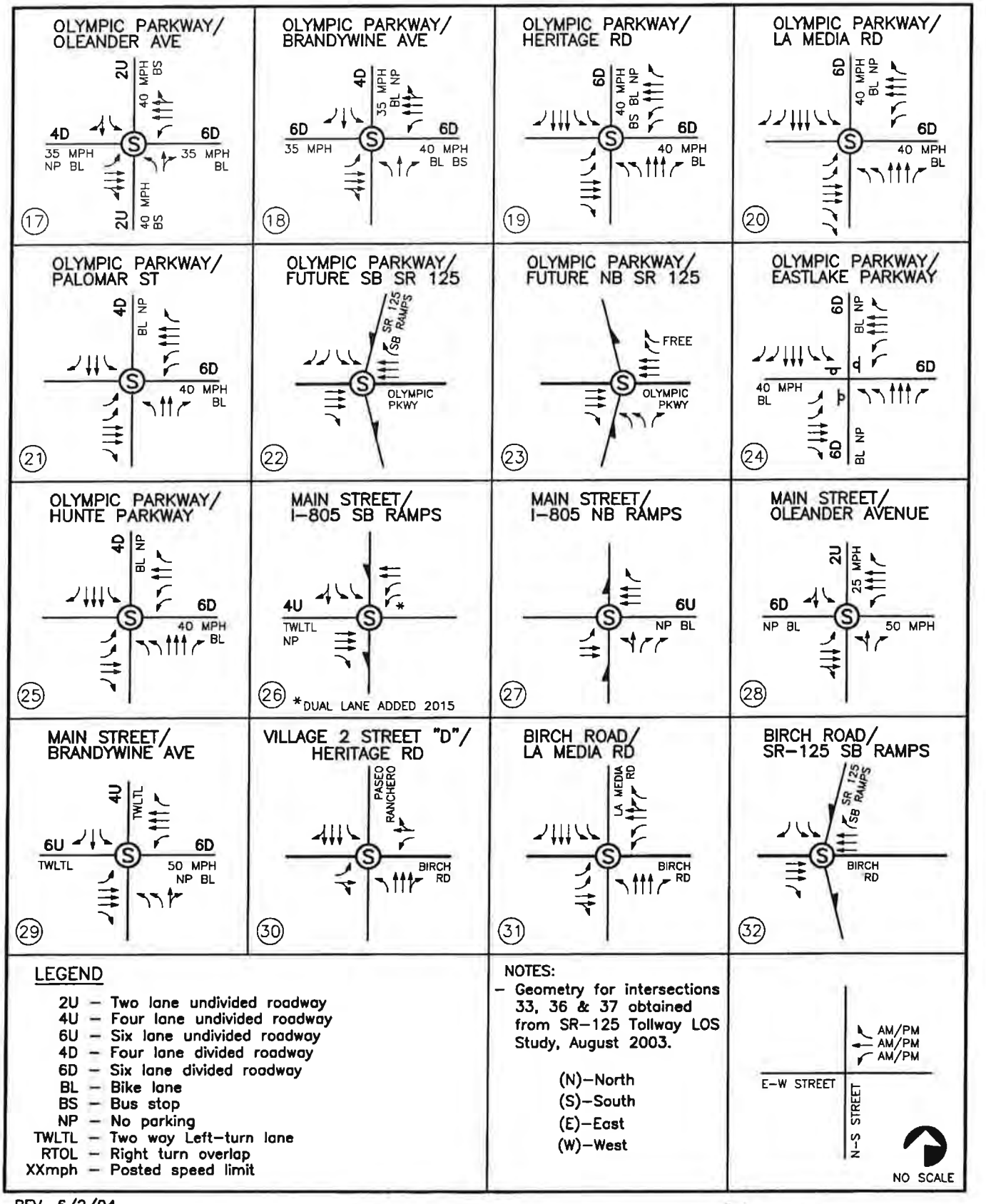

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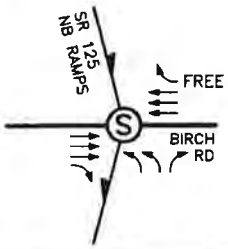
Figure 37
(2 OF 3)

YEAR 2010 & BEYOND INTERSECTION GEOMETRY

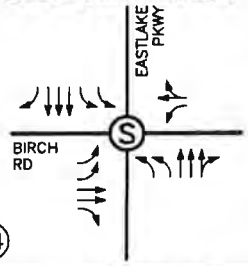
OTAY RANCH VILLAGE 7

BIRCH ROAD/
SR-125 NB RAMPS



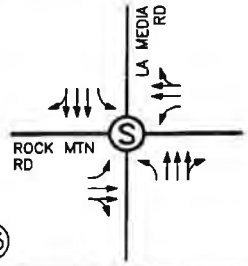
(33)

BIRCH ROAD/
EASTLAKE PARKWAY



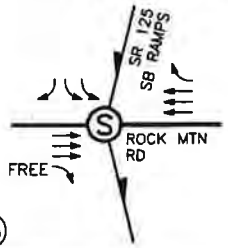
(34)

ROCK MOUNTAIN ROAD/
LA MEDIA RD*



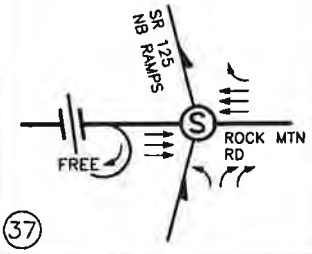
(35)

ROCK MOUNTAIN ROAD/
SR-125 SB RAMPS*



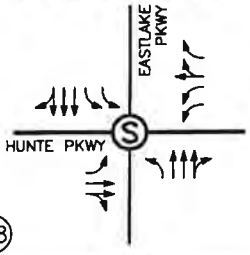
(36)

ROCK MOUNTAIN ROAD/
SR-125 NB RAMPS*



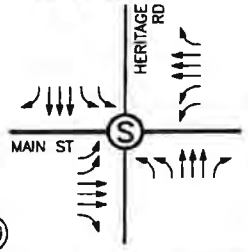
(37)

HUNTE PARKWAY/
EASTLAKE PARKWAY



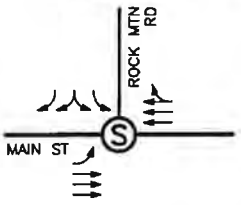
(38)

MAIN STREET/
HERITAGE RD*



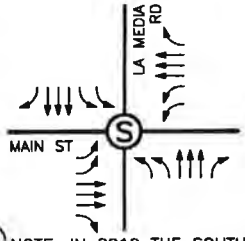
(39)

MAIN STREET/
ROCK MOUNTAIN RD*



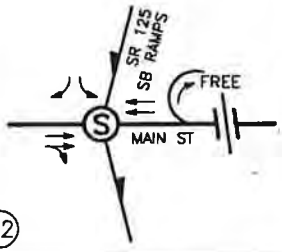
(40)

MAIN STREET/
LA MEDIA RD*



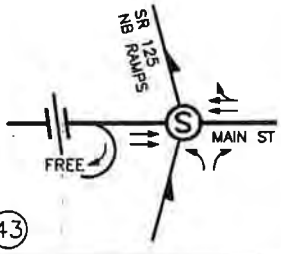
(41) NOTE: IN 2010 THE SOUTH LEG DOES NOT EXIST

MAIN STREET/
SR-125 SB RAMPS*



(42)

MAIN STREET/
SR-125 NB RAMPS*



(43)

NOTES:
- Geometry for intersections 33, 36 & 37 obtained from SR-125 Tollway LOS Study, August 2003.

* Not Analyzed in Year 2010

(N)-North
(S)-South
(E)-East
(W)-West

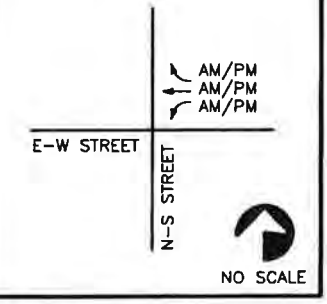


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Figure 37
(3 OF 3)

YEAR 2010 & BEYOND INTERSECTION GEOMETRY

OTAY RANCH VILLAGE 7

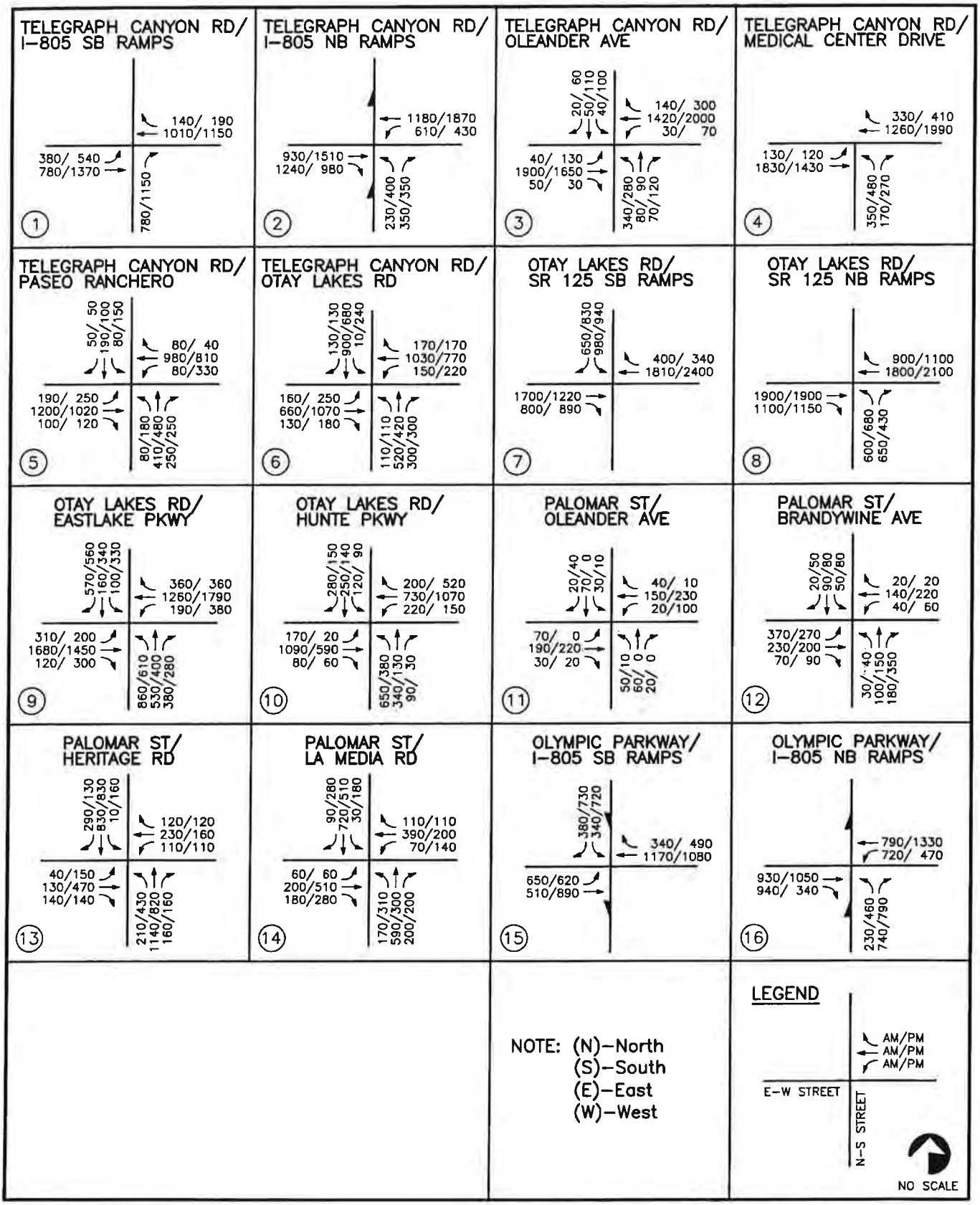

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Figure 37a
(1 OF 3)

VILLAGE 7 BUILDOUT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7

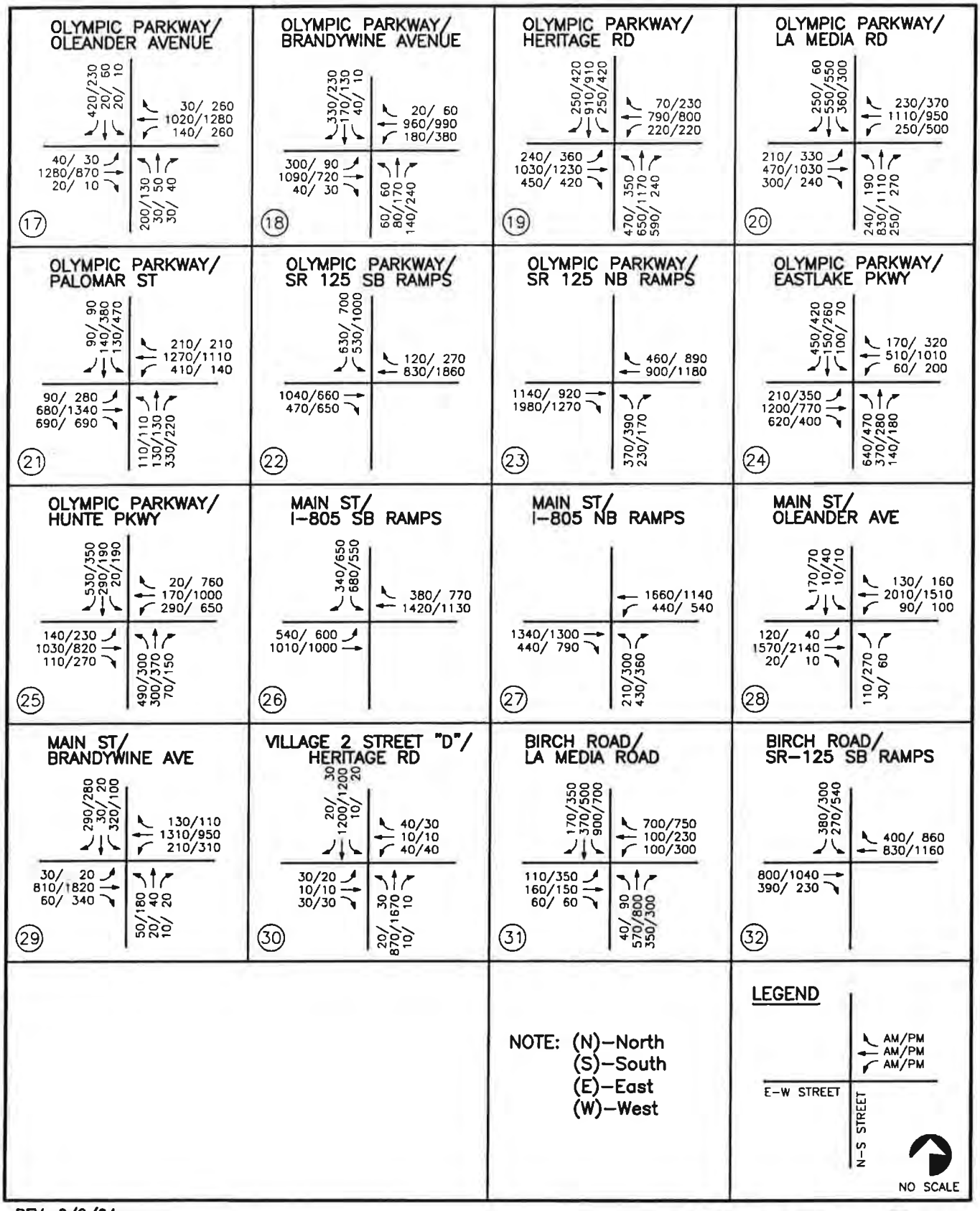

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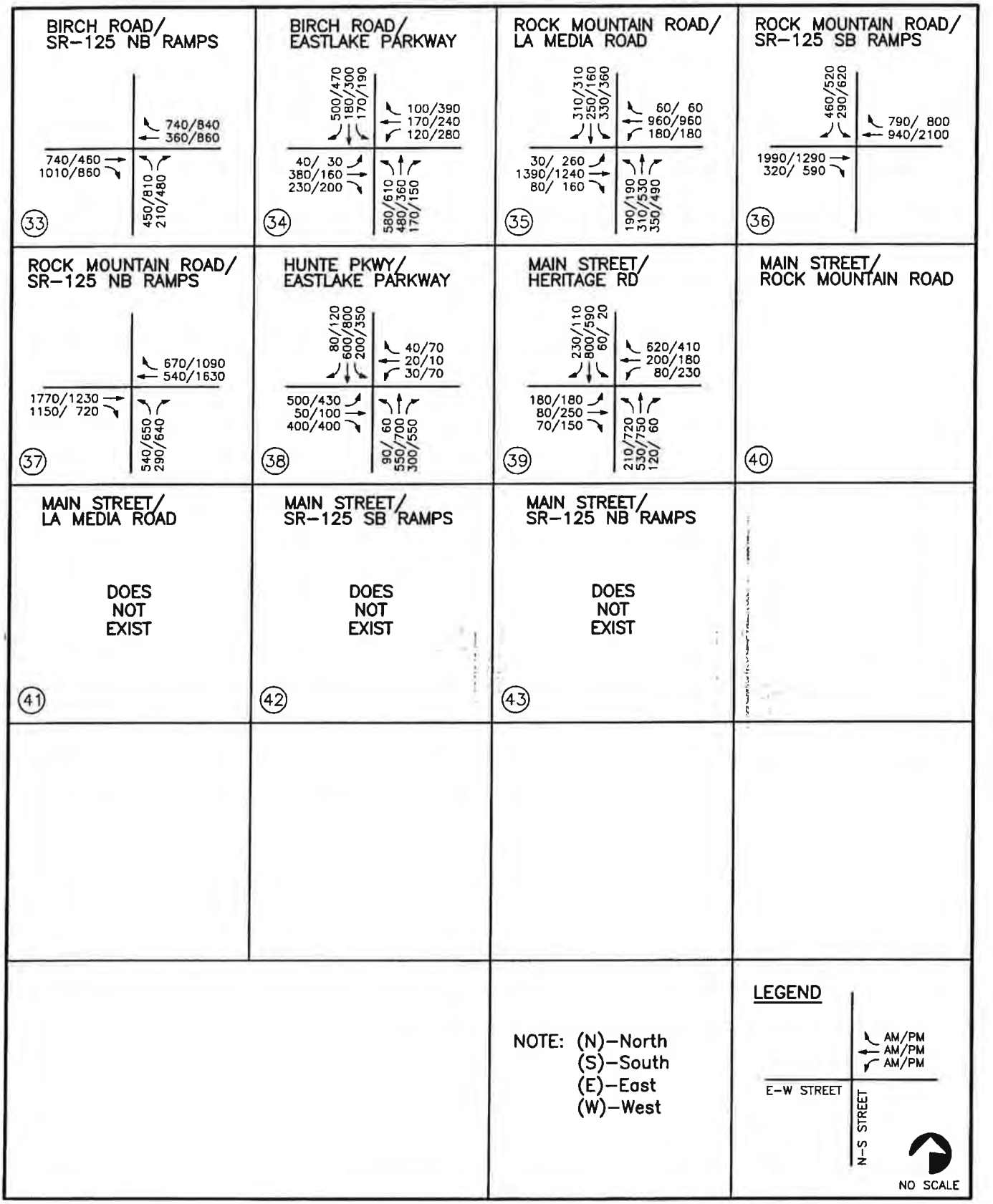
Figure 37a
(2 OF 3)

VILLAGE 7 BUILDOUT TRAFFIC VOLUMES AM/PM PEAK HOURS

OTAY RANCH VILLAGE 7



REV. 5/28/04
LLG1340.DWG

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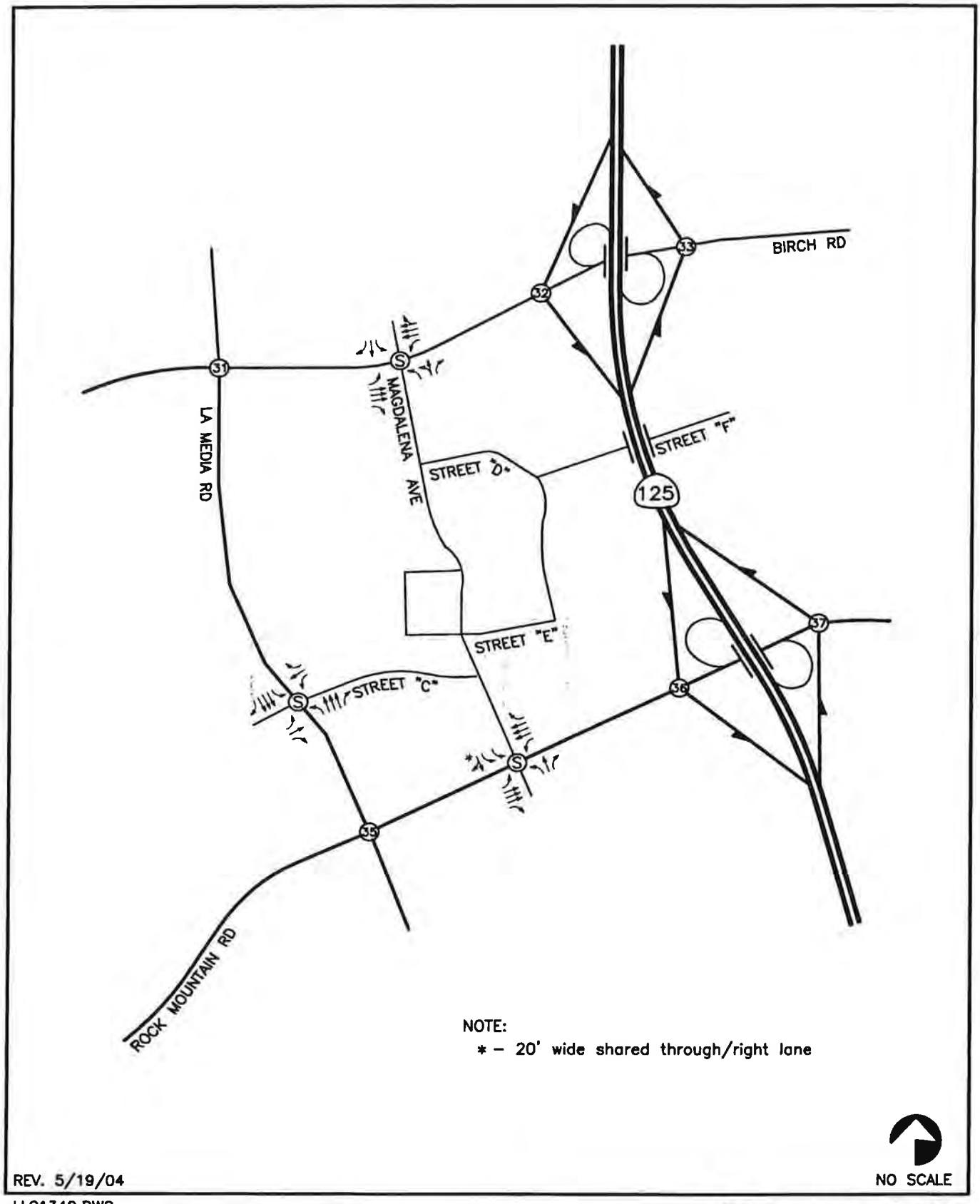
ENGINEERS

Figure 37a
(3 OF 3)

VILLAGE 7 BUILDOUT TRAFFIC VOLUMES
AM/PM PEAK HOURS
OTAY RANCH VILLAGE 7



LLG1340.DWG

Figure 38

PROJECT ACCESS INTERSECTION GEOMETRY

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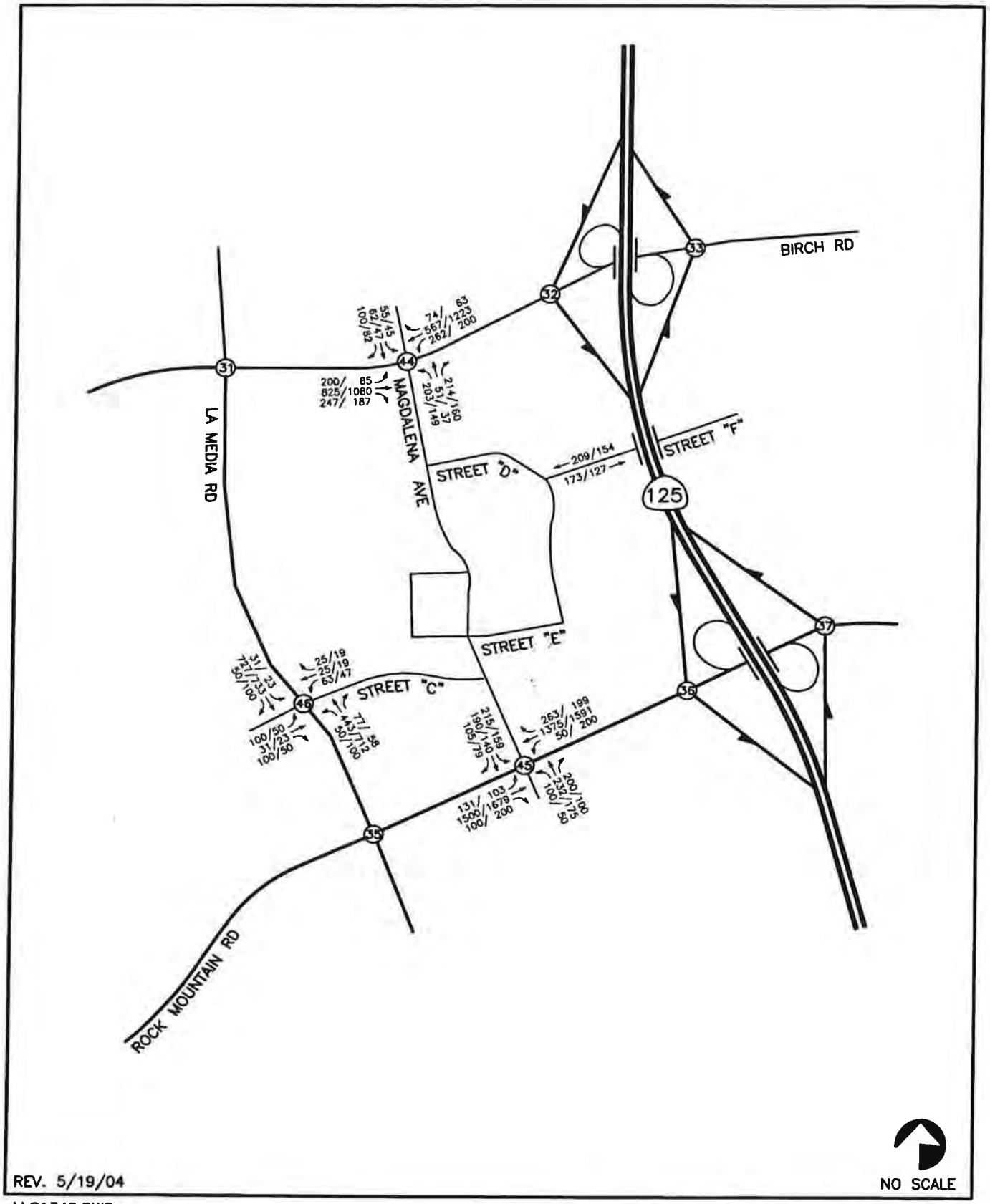
ENGINEERS



LLG1340.DWG

Figure 39

PROJECT ACCESS INTERSECTION TRAFFIC VOLUMES AM/PM PEAK HOUR VOLUMES

OTAY RANCH VILLAGE 7

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Table 1

PROPOSED PROJECT LAND USES

LAND USE	QUANTITY
Single Family	1,053 DU
Multi Family	448 DU
Commercial	3.7 Acres
Public Park	7.6 Acres
Community Purpose Facility	4.1 Acres
Elementary School	11.1 Acres
Middle School	26.3 Acres
High School	2,950 Students
Open Space [3]	61.8 Acres

Notes:

1. Does not generate any vehicle trips.

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Table 2

EXISTING ADT VOLUMES

SEGMENT	SOURCE	YEAR	VOLUME
TELEGRAPH CANYON ROAD			
I-805 to Oleander Ave.	City of Chula Vista	2002	64,100
Oleander Ave. to Medical Center Dr.	City of Chula Vista	2002	60,000
Medical Center Dr. to Paseo Ranchero/Heritage Rd.	City of Chula Vista	2002	46,900
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd.	City of Chula Vista	2002	50,500
OTAY LAKES ROAD			
North of Telegraph Canyon Rd.	[1]	2003	24,000
La Media Rd. to Eastlake Pkwy.	City of Chula Vista	2002	42,000
Eastlake Pkwy. to Lane Ave.	City of Chula Vista	2002	17,200
PALOMAR STREET			
I-805 to Oleander Ave.	City of Chula Vista	2002	7,000
Oleander Ave. to Medical Center Dr.	City of Chula Vista	2002	4,500
Medical Center Dr. to Heritage Rd.	City of Chula Vista	2002	11,200
Heritage Rd. to La Media Rd.	City of Chula Vista	2002	14,100
La Media Rd. to Olympic Pkwy.	City of Chula Vista	2002	8,800
OLYMPIC PARKWAY			
I-805 to Oleander Ave.	LLG Engineers [2]	2003	38,900
Oleander Ave. to Medical Center Dr.	LLG Engineers [2]	2003	32,700
Medical Center Dr. to Heritage Rd.	LLG Engineers [2]	2003	25,400
Heritage Rd. to La Media Rd.	LLG Engineers [2]	2003	20,500
La Media Rd. to Palomar St.	LLG Engineers [2]	2003	11,500
Palomar St. to Eastlake Pkwy.	LLG Engineers [2]	2003	9,500
Eastlake Pkwy. to Hunte Pkwy.	LLG Engineers [2]	2003	8,500

Notes

2. ADT Volume counts conducted by LLG in 2003.
1. Estimated assuming PM peak hour volumes at adjacent intersections are 10% of ADT.

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Table 2 (Continued)

EXISTING ADT VOLUMES

SEGMENT	SOURCE	YEAR	VOLUME
OLEANDER AVENUE			
Telegraph Canyon Rd. to Palomar St.	[1]	2003	5,600
Palomar St. to Olympic Pkwy.	LLG Engineers [2]	2003	3,800
Olympic Pkwy. to Main St.	[1]	2003	2,700
MEDICAL CENTER DRIVE			
Telegraph Canyon Rd. to Palomar St.	City of Chula Vista	2001	13,100
BRANDYWINE AVENUE			
Palomar St. to Olympic Pkwy.	City of Chula Vista	2002	8,200
Olympic Pkwy. to Main St.	City of Chula Vista	2002	6,800
PASEO RANCHERO			
North of Telegraph Canyon Rd.	[1]	2003	8,200
PASEO RANCHERO/HERITAGE ROAD			
Telegraph Canyon Rd. to Palomar St.	LLG Engineers [2]	2003	15,600
Palomar St. to Olympic Pkwy.	[1]	2003	11,300
LA MEDIA ROAD			
Telegraph Canyon Rd. to Palomar St.	City of Chula Vista	2002	13,400
Palomar St. to Olympic Pkwy.	LLG Engineers [2]	2003	8,200
EASTLAKE PARKWAY			
Fenton St. to Otay Lakes Rd.	City of Chula Vista	2002	8,400
Otay Lakes Rd. to Olympic Pkwy.	[1]	2003	20,700
HUNTE PARKWAY			
Otay Lakes Rd. to Clubhouse Dr.	[1]	2003	8,400
Clubhouse Dr. to Olympic Pkwy.	[1]	2003	5,400

Notes

2. ADT Volume counts conducted by LLG in 2003.
1. Estimated assuming PM peak hour volumes at adjacent intersections are 10% of ADT.

Table 3

LEVEL OF SERVICE THRESHOLDS FOR SIGNALIZED INTERSECTIONS

AVERAGE CONTROL DELAY PER VEHICLE (SECONDS/VEHICLE)			LEVEL OF SERVICE (LOS)
0.0	≤	10.0	A
10.1	to	20.0	B
21.1	to	35.0	C
35.1	to	55.0	D
55.1	to	80.0	E
	≥	80.0	F

Source: Highway Capacity Manual, 2000.

Table 4

INTERSECTION LEVEL OF SERVICE DESCRIPTIONS

LEVEL OF SERVICE	DESCRIPTION
A	Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
C	Generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	Considered to be unacceptable to most drivers. This condition often occurs with over saturation i.e. when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume-to-capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

SOURCE: Highway Capacity Manual, 2000.

Table 5

LEVEL OF SERVICE THRESHOLDS FOR UNSIGNALIZED INTERSECTIONS

AVERAGE CONTROL DELAY PER VEHICLE (SECONDS/VEHICLE)			LEVEL OF SERVICE	EXPECTED DELAY TO MINOR STREET TRAFFIC
0.0	≤	10.0	A	Little or no delay
10.1	to	15.0	B	Short traffic delays
15.1	to	25.0	C	Average traffic delays
25.1	to	35.0	D	Long traffic delays
35.1	to	50.0	E	Very long traffic delays
	≥	50.0	F	Severe congestion

Source: Highway Capacity Manual, 2000.

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Table 6

STREET SEGMENT LEVEL OF SERVICE DESCRIPTIONS

LEVEL OF SERVICE	DESCRIPTION
A	Describes primarily free-flow operations. Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	Also represents reasonably free-flow, and speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.
C	Provides for flow with speeds still at or near the free-flow speed of the roadway. Freedom to maneuver within the traffic stream is noticeably restricted at LOS C, and lane changes require more vigilance on the part of the driver. The driver now experiences a noticeable increase in tension because of the additional vigilance required for safe operation.
D	The level at which speeds begin to decline slightly with increasing flows. In this range, density begins to deteriorate somewhat more quickly with increasing flows. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.
E	Describes operation at capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions, and any incident can be expected to produce a serious breakdown with extensive queuing.
F	Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points such as traffic incidents and recurring points of congestion. Whenever LOS F conditions exist, there is a potential for them to extend upstream for significant distances.

SOURCE: Highway Capacity Manual, 2000.

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Table 7

EXISTING PEAK HOUR INTERSECTION OPERATIONS

INTERSECTION	PEAK HOUR	DELAY	LOS
1. Telegraph Cnyn. Rd./I-805 SB Ramps	AM	27.9	C
	PM	**68.0**	**E**
2. Telegraph Cnyn. Rd./I-805 NB Ramps	AM	32.2	C
	PM	24.5	C
3. Telegraph Cnyn. Rd./Oleander Ave.	AM	15.8	B
	PM	20.0	B
4. Telegraph Cnyn. Rd./Medical Center Dr.	AM	15.4	B
	PM	18.2	B
5. Telegraph Cnyn. Rd./Paseo Ranchero/Heritage Rd.	AM	25.5	C
	PM	25.7	C
6. Telegraph Cnyn. Rd./Otay Lakes Rd./La Media Rd.	AM	35.9	D
	PM	36.9	D
9. Otay Lakes Rd./Eastlake Pkwy.	AM	32.5	D
	PM	30.9	D
10. Otay Lakes Rd./Hunte Pkwy.	AM	33.8	C
	PM	33.1	C
11. Palomar St./Oleander Ave.	AM	10.2	B
	PM	9.8	A
12. Palomar St./Brandywine Ave.	AM	33.1	C
	PM	37.5	D
13. Palomar St./Heritage Rd.	AM	32.9	C
	PM	32.7	C
14. Palomar St./La Media Rd.	AM	39.0	C
	PM	37.8	D
15. Olympic Pkwy./I-805 SB Ramps	AM	29.9	C
	PM	**60.3**	**E**
16. Olympic Pkwy./I-805 NB Ramps	AM	**71.0**	**E**
	PM	45.5	D

Note:
1. Bold and shading indicate LOS E or LOS F operations.

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ENGINEERS

Table 7 (Continued)

EXISTING PEAK HOUR INTERSECTION OPERATIONS

INTERSECTION	PEAK HOUR	DELAY	LOS
17. Olympic Pkwy./Oleander Ave.	AM	26.7	C
	PM	22.7	C
18. Olympic Pkwy./Brandywine Ave.	AM	38.3	D
	PM	36.1	D
19. Olympic Pkwy./Heritage Rd.	AM	25.2	C
	PM	33.9	C
20. Olympic Pkwy./La Media Rd.	AM	29.3	C
	PM	27.8	C
21. Olympic Pkwy./Palomar St.	AM	23.7	C
	PM	20.2	C
24. Olympic Pkwy./Eastlake Pkwy.	AM	26.3	C
	PM	25.3	C
25. Olympic Pkwy./Hunte Pkwy.	AM	33.7	C
	PM	29.9	C
26. Main St./I-805 SB Ramps	AM	24.6	C
	PM	30.2	C
27. Main St./I-805 NB Ramps	AM	21.4	C
	PM	23.4	C
28. Main St./Oleander Ave.	AM	9.8	A
	PM	7.1	A
29. Main St./Brandywine Ave.	AM	30.3	C
	PM	32.6	C

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Table 8

EXISTING SEGMENT OPERATIONS

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	VOLUME	LOS
TELEGRAPH CANYON ROAD				
I-805 to Oleander Ave.	7-Ln Major Arterial	58,300	64,100	F
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000	60,000	E
Medical Center Dr. to Paseo Ranchero/Heritage Rd.	6-Ln Prime Arterial	50,000	46,900	C
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd.	6-Ln Prime Arterial	50,000	50,500	D
OTAY LAKES ROAD				
North of Telegraph Canyon Rd.	4-Ln Major Arterial	30,000	21,200	A
La Media Rd. to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	42,000	B
Eastlake Pkwy. to Lane Ave.	6-Ln Prime Arterial	50,000	17,200	A
PALOMAR STREET				
I-805 to Oleander Ave.	4-Ln Major Arterial	30,000	7,000	A
Oleander Ave. to Medical Center Dr.	4-Ln Major Arterial	30,000	4,500	A
Medical Center Dr. to Heritage Rd.	4-Ln Major Arterial	30,000	11,200	A
Heritage Rd. to La Media Rd.	4-Ln Major Arterial	30,000	14,100	A
La Media Rd. to Olympic Pkwy.	4-Ln Major Arterial	30,000	8,800	A
OLYMPIC PARKWAY				
I-805 to Oleander Ave.	6-Ln Prime Arterial	50,000	38,900	C
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000	32,700	A
Medical Center Dr. to Heritage Rd.	6-Ln Prime Arterial	50,000	25,400	A
Heritage Rd. to La Media Rd.	6-Ln Prime Arterial	50,000	20,500	A
La Media Rd. to Palomar St.	6-Ln Prime Arterial	50,000	11,500	A
Palomar St. to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	9,500	A
Eastlake Pkwy. to Hunte Pkwy.	6-Ln Prime Arterial	50,000	8,500	A

Note:

1. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 8 (Continued)

EXISTING SEGMENT OPERATIONS

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	VOLUME	LOS
OLEANDER AVENUE				
Telegraph Canyon Rd. to Palomar St.	Class II Collector	12,000	5,600	A
Palomar St. to Olympic Pkwy.	Class II Collector	12,000	3,800	A
Olympic Pkwy. to Main St.	Class II Collector	12,000	2,700	A
MEDICAL CENTER DRIVE				
Telegraph Canyon Rd. to Palomar St.	Class I Collector	22,000	13,080	A
BRANDYWINE AVENUE				
Palomar St. to Olympic Pkwy.	Class I Collector	22,000	8,200	A
Olympic Pkwy. to Main St.	Class I Collector	22,000	6,800	A
PASEO RANCHERO				
J St. to Telegraph Canyon Rd.	Class I Collector	22,000	8,200	A
PASEO RANCHERO/HERITAGE ROAD				
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	15,600	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	11,300	A
LA MEDIA ROAD				
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	13,400	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	8,200	A
EASTLAKE PARKWAY				
Fenton St. to Otay Lakes Rd.	4-Ln Major	30,000	8,400	A
Otay Lakes Rd. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	20,700	A
HUNTE PARKWAY				
Otay Lakes Rd. to Clubhouse Dr.	4-Ln Major	30,000	8,400	A
Clubhouse Dr. to Olympic Pkwy.	4-Ln Major	30,000	5,400	A

Note:

1. Bold and shading indicate LOS E or LOS F operations.

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Table 9

FREEWAY MAINLINE OPERATIONS
EXISTING CONDITIONS

FREEWAY SEGMENT	Dir.	# of Lanes	Hourly Capacity[1]	Pk Hr Both Direc.		% D[3]	% D[3]	Pk Hr Vol (1-Dir)		V/C[4]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	17,130	18,483	0.53	0.44	9079	8133	0.856	0.767	D	C
	SB	4+1	10,600	17,130	18,483	0.47	0.56	8051	10350	0.760	0.976	C	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	12,635	13,634	0.53	0.44	6697	5999	0.632	0.566	C	B
	SB	4+1	10,600	12,635	13,634	0.47	0.56	5939	7635	0.560	0.720	B	C
Olympic Pkwy. to Main St.	NB	4+1	10,600	12,550	13,542	0.53	0.44	6652	5958	0.628	0.562	C	B
	SB	4+0	8,800	12,550	13,542	0.47	0.56	5899	7584	0.670	0.862	C	D
Main St. to Palm Ave.	NB	4+1	10.600	12.466	13.451	0.53	0.44	6607	5918	0.623	0.558	C	B
	SB	4+1	10,600	12,466	13,451	0.47	0.56	5859	7532	0.553	0.711	B	C

Notes:

1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

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Table 10

TRIP GENERATION

LAND USE	QUANTITY	DAILY TRIP ENDS (ADT) [1]		AM PEAK HOUR					PM PEAK HOUR				
		RATE [2]	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	VOLUME TOTAL	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	VOLUME TOTAL
Single Family	1,053 DU	10 /DU	10,530	8%	3:7	253	590	842	10%	7:3	737	316	1,053
Multi Family	448 DU	8 /DU	3,584	8%	2:8	57	229	287	10%	7:3	251	108	358
Commercial	3.7 Acres	700 /Acre	2,590	4%	6:4	62	41	104	10%	5:5	130	130	259
Public Park	7.6 Acres	5 /Acre	38	4%	5:5	1	1	2	8%	5:5	2	2	3
Community Purpose Facility	4.1 Acres	30 /Acre	123	4%	5:5	2	2	5	8%	5:5	5	5	10
Elementary School	11.1 Acres	90 /Acre	999	32%	6:4	192	128	320	9%	4:6	36	54	90
Middle School	26.3 Acres	50 /Acre	1,315	30%	6:4	237	158	395	9%	4:6	47	71	118
High School	2,950 Students	2.00 /Student	5,900	20%	7:3	825	355	1,180	10%	4:6	235	355	590
Open Space [3]	61.8 Acres												
TOTAL PROPOSED PROJECT			**25,079**			**1,629**	**1,504**	**3,133**			**1,442**	**1,039**	**2,482**

Notes:
1. Trip-ends are one-way traffic movements, either entering or leaving.
2. Generation rates obtained from the SANDAG Brief Guide (April 2002).
3. Does not generate any trips.

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Table 11

INTERNAL TRIPS

LAND USE	TOTAL DAILY TRIPS			% OF TRIPS WHICH ARE INTERNAL	INTERNAL TRIPS (DAILY)			EXTERNAL TRIPS (DAILY)		
	DAILY	AM PEAK HOUR	PM PEAK HOUR		DAILY	AM PEAK HOUR	PM PEAK HOUR	DAILY	AM PEAK HOUR	PM PEAK HOUR
RESIDENTIAL										
Single Family	10,530	842	1,053	15%	1,580	126	158	8,951	716	895
Multi Family	3,584	287	358	15%	538	43	54	3,046	244	305
Subtotal Residential	**14,114**	**1,129**	**1,411**		**2,117**	**169**	**212**	**11,997**	**960**	**1,200**
NON-RESIDENTIAL										
Commercial	2,590	104	259	15%	389	10	39	2,202	94	220
Public Park	38	2	3	65%	25	1	2	13	1	1
Community Purpose Facility	123	5	10	75%	92	4	7	31	1	2
Elementary School	999	320	90	53%	529	70	48	470	250	42
Middle School	1,315	395	118	15%	197	24	18	1,118	371	101
High School	5,900	1,180	590	15%	885	60	98	5,015	1,120	492
Preserve [1]										
Subtotal Non-Residential	**10,965**	**2,004**	**1,070**		**2,117**	**169**	**212**	**8,848**	**1,836**	**859**
TOTAL PROJECT	**25,079**	**3,133**	**2,482**		**4,234**			**20,845**	**2,795**	**2,058**

Notes:

1. Does not generate any vehicle trips.

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Table 12

TRIP GENERATION
PROPOSED PROJECT

LAND USE	QUANTITY	DAILY TRIP ENDS (ADT)		AM PEAK HOUR					PM PEAK HOUR				
				% OF ADT	IN:OUT SPLIT	VOLUME			% OF ADT	IN:OUT SPLIT	VOLUME		
		RATE	VOLUME			IN	OUT	TOTAL			IN	OUT	TOTAL
PHASE 1 (YEAR 2005)													
High School	2950 Students	2 /Student	5,900	20%	7:3	825	355	1,180	10%	4:6	235	355	590
TOTAL PHASE 1			**5,900**			**825**	**355**	**1,180**			**235**	**355**	**590**
PHASE 2 (YEAR 2010)													
Single Family	675 DU	10 /DU	6,750	8%	3:7	162	378	540	10%	7:3	473	203	675
Multi Family	448 DU	8 /DU	3,584	8%	2:8	57	229	287	10%	7:3	251	108	358
Commercial	4.5 Acres	700 /Acre	3,150	4%	6:4	76	50	126	10%	5:5	158	158	315
Community Purpose Facility	4.4 Acres	5 /Acre	22	4%	5:5	0	0	1	8%	5:5	1	1	2
High School	2950 Students	2 /Student	5,900	20%	7:3	825	355	1,180	10%	4:6	235	355	590
Elementary School	11.1 Acres	90 /Acre	999	32%	6:4	192	128	320	9%	4:6	36	54	90
Community Park	7 Acres	5 /Acre	35	4%	5:5	1	1	1	8%	5:5	1	1	3
TOTAL PHASE 2			**20,440**			**1,313**	**1,142**	**2,455**			**1,154**	**879**	**2,033**
PHASE 3 (YEAR 2015)													
Single Family	1,053 DU	10 /DU	10,530	8%	3:7	253	590	842	10%	7:3	737	316	1,053
Multi Family	448 DU	8 /DU	3,584	8%	2:8	57	229	287	10%	7:3	251	108	358
Commercial	4.5 Acres	700 /Acre	3,150	4%	6:4	76	50	126	10%	5:5	158	158	315
Community Purpose Facility	4.4 Acres	5 /Acre	22	4%	5:5	0	0	1	8%	5:5	1	1	2
High School	2950 Students	2 /Student	5,900	20%	7:3	825	355	1,180	10%	4:6	235	355	590
Elementary School	11.1 Acres	90 /Acre	999	32%	6:4	192	128	320	9%	4:6	36	54	90
Middle School	26.1 Acres	50 /Acre	1,305	30%	6:4	235	157	392	9%	4:6	47	70	117
Community Park	7 Acres	5 /Acre	35	4%	5:5	1	1	1	8%	5:5	1	1	3
TOTAL PHASE 3			**25,525**			**1,639**	**1,510**	**3,149**			**1,466**	**1,063**	**2,528**

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Table 13

EXISTING + PROJECT
PEAK HOUR INTERSECTION OPERATIONS

INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT	
		DELAY	LOS	DELAY	LOS
1. Telegraph Cnyn. Rd./I-805 SB Ramps	AM	27.9	C	31.1	C
	PM	68.0	E	88.5	F
2. Telegraph Cnyn. Rd./I-805 NB Ramps	AM	32.2	C	32.6	C
	PM	24.5	C	24.8	C
3. Telegraph Cnyn. Rd./Oleander Ave.	AM	15.8	B	16.0	B
	PM	20.0	B	22.1	C
4. Telegraph Cnyn. Rd./Medical Center Dr.	AM	15.4	B	15.8	B
	PM	18.2	B	19.3	B
5. Telegraph Cnyn. Rd./Paseo Ranchero/Heritage Rd.	AM	25.5	C	27.2	C
	PM	25.7	C	27.0	C
6. Telegraph Cnyn. Rd./Otay Lakes Rd./La Media Rd.	AM	35.9	D	36.9	D
	PM	36.9	D	38.0	D
9. Otay Lakes Rd./Eastlake Pkwy.	AM	32.5	C	33.5	C
	PM	30.9	C	31.3	C
10. Otay Lakes Rd./Hunte Pkwy.	AM	33.8	C	33.8	C
	PM	33.1	C	35.8	D
11. Palomar St./Oleander Ave.	AM	10.2	B	32.7	C
	PM	9.8	A	26.1	C
12. Palomar St./Brandywine Ave.	AM	33.1	C	33.3	C
	PM	37.5	D	37.5	D
13. Palomar St./Heritage Rd.	AM	32.9	C	35.7	D
	PM	32.7	C	32.8	C
14. Palomar St./La Media Rd.	AM	39.0	C	40.4	D
	PM	37.8	D	39.1	D
15. Olympic Pkwy./I-805 SB Ramps	AM	29.9	C	50.4	D
	PM	66.2	E	95.6	F
16. Olympic Pkwy./I-805 NB Ramps	AM	71.0	E	>100.0	F
	PM	45.5	D	79.0	E

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

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Table 13 (Continued)

EXISTING + PROJECT
PEAK HOUR INTERSECTION OPERATIONS

INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT	
		DELAY	LOS	DELAY	LOS
17. Olympic Pkwy./Oleander Ave.	AM	26.7	C	27.4	C
	PM	22.7	C	23.7	C
18. Olympic Pkwy./Brandywine Ave.	AM	38.3	D	43.4	D
	PM	36.1	D	36.9	D
19. Olympic Pkwy./Heritage Rd.	AM	25.2	C	30.8	C
	PM	33.9	C	34.5	C
20. Olympic Pkwy./La Media Rd.	AM	29.3	C	36.2	D
	PM	27.8	C	35.5	D
21. Olympic Pkwy./Palomar St.	AM	23.7	C	28.8	C
	PM	20.2	C	23.3	C
24. Olympic Pkwy./Eastlake Pkwy.	AM	26.3	C	30.1	C
	PM	25.3	C	29.3	C
25. Olympic Pkwy./Hunte Pkwy.	AM	33.7	C	44.3	D
	PM	29.9	C	30.2	C
26. Main St./I-805 SB Ramps	AM	24.6	C	27.4	C
	PM	30.2	C	36.1	D
27. Main St./I-805 NB Ramps	AM	21.4	C	22.2	C
	PM	23.4	C	25.7	C
28. Main St./Oleander Ave.	AM	9.8	A	10.9	B
	PM	7.1	A	7.5	A
29. Main St./Brandywine Ave.	AM	30.3	C	31.0	C
	PM	32.6	C	34.8	C
31. La Media Rd./Birch Rd.	AM	[1]	[1]	38.5	D
	PM	[1]	[1]	22.0	C
44. Magdelena Ave./Birch Rd.	AM	[1]	[1]	**>100.0**	**F**
	PM	[1]	[1]	**63.3**	**E**

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

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Table 14

EXISTING + PROJECT SEGMENT OPERATIONS

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	EXISTING		EXISTING + PROJECT	
			VOLUME	LOS	VOLUME	LOS
TELEGRAPH CANYON ROAD						
I-805 to Oleander Ave. [1]	7-Ln Major Arterial	58,300	64,100	F	64,520	F
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000	60,000	E	60,630	E
Medical Center Dr. to Paseo Ranchero/Heritage Rd.	6-Ln Prime Arterial	50,000	46,900	C	47,750	C
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd.	6-Ln Prime Arterial	50,000	50,500	D	50,500	D
OTAY LAKES ROAD						
North of Telegraph Canyon Rd.	4-Ln Major Arterial	30,000	21,200	A	23,120	B
La Media Rd. to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	42,000	B	42,420	B
Eastlake Pkwy. to Lane Ave.	6-Ln Prime Arterial	50,000	17,200	A	17,620	A
PALOMAR STREET						
I-805 to Oleander Ave.	4-Ln Major Arterial	30,000	7,000	A	7,210	A
Oleander Ave. to Medical Center Dr.	4-Ln Major Arterial	30,000	4,500	A	4,710	A
Medical Center Dr. to Heritage Rd.	4-Ln Major Arterial	30,000	11,200	A	11,410	A
Heritage Rd. to La Media Rd.	4-Ln Major Arterial	30,000	14,100	A	14,520	A
La Media Rd. to Olympic Pkwy.	4-Ln Major Arterial	30,000	8,800	A	9,010	A
OLYMPIC PARKWAY						
I-805 to Medical Center Dr.	6-Ln Prime Arterial	50,000	38,900	C	44,430	D
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000	32,700	A	38,230	B
Medical Center Dr. to Heritage Rd.	6-Ln Prime Arterial	50,000	25,400	A	31,790	A
Heritage Rd. to La Media Rd.	6-Ln Prime Arterial	50,000	20,500	A	28,380	A
La Media Rd. to Palomar St.	6-Ln Prime Arterial	50,000	11,500	A	11,710	A
Palomar St. to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	9,500	A	9,500	A
Eastlake Pkwy. to Hunte Pkwy.	6-Ln Prime Arterial	50,000	8,500	A	11,480	A
BIRCH ROAD						
La Media Rd. to Eastlake Pkwy.	6-Ln Major Arterial	40,000	[2]	[2]	12,560	A

Notes:
1. To be widened to 4 through lanes in the westbound direction.
2. Segment does not currently exist.
3. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 14 (Continued)

EXISTING + PROJECT SEGMENT OPERATIONS

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	EXISTING		EXISTING + PROJECT	
			VOLUME	LOS	VOLUME	LOS
OLEANDER AVENUE						
Telegraph Canyon Rd. to Palomar St.	Class II Collector	12,000	5,600	A	5,810	A
Palomar St. to Olympic Pkwy.	Class II Collector	12,000	3,800	A	3,800	A
Olympic Pkwy. to Main St.	Class II Collector	12,000	2,700	A	2,700	A
MEDICAL CENTER DRIVE						
Telegraph Canyon Rd. to Palomar St.	Class I Collector	22,000	13,080	A	13,290	A
BRANDYWINE AVENUE						
Palomar St. to Olympic Pkwy.	Class I Collector	22,000	8,200	A	8,200	A
Olympic Pkwy. to Main St.	Class I Collector	22,000	6,800	A	7,650	A
PASEO RANCHERO						
North of Telegraph Canyon Rd.	Class I Collector	22,000	8,200	A	8,630	A
PASEO RANCHERO/HERITAGE ROAD						
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	15,600	A	16,880	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	11,300	A	12,790	A
LA MEDIA ROAD						
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	13,400	A	15,740	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	8,200	A	10,970	A
South of Olympic Pkwy.	6-Ln Prime Arterial	50,000	[2]	[2]	11,070	A
EASTLAKE PARKWAY						
Fenton St. to Otay Lakes Rd.	4-Ln Major	30,000	8,400	A	8,830	A
Otay Lakes Rd. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	20,700	A	21,980	A
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	[2]	[2]	5,960	A
HUNTE PARKWAY						
Otay Lakes Rd. to Olympic Pkwy.	4-Ln Major	30,000	8,400	A	8,830	A
Olympic Pkwy. to Eastlake Pkwy.	4-Ln Major	30,000	5,400	A	6,250	A

Notes:
1. To be widened to 4 through lanes in the westbound direction.
2. Segment does not currently exist.
3. Bold and shading indicate LOS E or LOS F operations.

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Table 15

FREEWAY MAINLINE OPERATIONS
EXISTING + PROJECT CONDITIONS

EXISTING

FREEWAY SEGMENT	Dir.	# of Lanes	Hourly Capacity[1]	Pk Hr Both Direc.		% D[3]	% D[3]	Pk Hr Vol (1-Dir)		V/C[4]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	17,130	18,483	0.53	0.44	9079	8133	0.856	0.767	D	C
	SB	4+1	10,600	17,130	18,483	0.47	0.56	8051	10350	0.760	0.976	C	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	12,635	13,634	0.53	0.44	6697	5999	0.632	0.566	C	B
	SB	4+1	10,600	12,635	13,634	0.47	0.56	5939	7635	0.560	0.720	B	C
Olympic Pkwy. to Main St.	NB	4+1	10,600	12,550	13,542	0.53	0.44	6652	5958	0.628	0.562	C	B
	SB	4+0	8,800	12,550	13,542	0.47	0.56	5899	7584	0.670	0.862	C	D
Main St. to Palm Ave.	N	4+1	10.600	12.466	13.451	0.53	0.44	6607	5918	0.623	0.558	C	
	SB	4+1	10,600	12,466	13,451	0.47	0.56	5859	7532	0.553	0.711	B	C

EXISTING + PROJECT CONDITIONS

FREEWAY SEGMENT	Dir.	# of Lanes	Hourly Capacity1	Pk Hr Vol (1-Dir)		Project Vol		Pk Hr Vol (E+P)		V/C (E+P)		LOS (E+P)		V/C Delta	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	9079	8133	235	155	9314	8288	0.879	0.782	D	C	0.022	0.015
	SB	4+1	10,600	8051	10350	261	195	8312	10545	0.784	0.995	C	E	0.025	0.018
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	6697	5999	202	159	6899	6158	0.651	0.581	C	B	0.019	0.015
	SB	4+1	10,600	5939	7635	248	186	6187	7821	0.584	0.738	B	C	0.023	0.018
Olympic Pkwy. to Main St.	NB	4+1	10,600	6652	5958	124	94	6776	6052	0.639	0.571	C	B	0.012	0.009
	SB	4+0	8,800	5899	7584	101	75	6000	7659	0.682	0.870	C	D	0.011	0.009
Main St. to Palm Ave.	NB	4+1	10,600	6607	5918	170	129	6777	6047	0.639	0.570	C	B	0.016	0.012
	SB	4+1	10,600	5859	7532	139	103	5998	7635	0.566	0.720	B	C	0.013	0.010

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 15A

TRIP GENERATION - PARTIAL VILLAGE 7

LAND USE	QUANTITY	DAILY TRIP ENDS (ADT) [1]		AM PEAK HOUR					PM PEAK HOUR				
				% OF ADT	IN:OUT SPLIT	VOLUME			% OF ADT	IN:OUT SPLIT	VOLUME		
		RATE [2]	VOLUME			IN	OUT	TOTAL			IN	OUT	TOTAL
Single Family	756 DU	10 /DU	7,560	8%	3:7	181	423	605	10%	7:3	529	227	756
Multi Family	448 DU	8 /DU	3,584	8%	2:8	57	229	287	10%	7:3	251	108	358
Public Park	7.6 Acres	5 /Acre	38	4%	5:5	1	1	2	8%	5:5	2	2	3
Community Purpose Facility	2.8 Acres	30 /Acre	84	4%	5:5	2	2	3	8%	5:5	3	3	7
Elementary School	11.1 Acres	90 /Acre	999	32%	6:4	192	128	320	9%	4:6	36	54	90
High School	2,950 Students	2.00 /Student	5,900	20%	7:3	825	355	1,180	10%	4:6	235	355	590
Open Space [3]	61.8 Acres												
TOTAL PROPOSED PROJECT			**18,165**			**1,258**	**1,138**	**2,396**			**1,056**	**748**	**1,804**

Notes:
1. Trip-ends are one-way traffic movements, either entering or leaving.
2. Generation rates obtained from the SANDAG Brief Guide (April 2002).
3. Does not generate any trips.

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Table 16

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Telegraph Cnyn. Rd./I-805 SB Ramps	AM	28.5	C	28.8	C	30.9	C	26.4	C	23.1	C
	PM	**58.8**	**E**	46.1	D	51.4	D	36.4	D	27.1	C
2. Telegraph Cnyn. Rd./I-805 NB Ramps	AM	41.1	D	23.6	C	24.4	C	20.5	C	21.3	C
	PM	23.8	C	19.6	B	20.1	C	19.1	B	17.6	B
3. Telegraph Cnyn. Rd./Oleander Ave.	AM	22.1	C	22.7	C	23.4	C	12.8	B	24.3	C
	PM	22.3	C	27.9	C	31.9	C	15.3	B	26.8	C
4. Telegraph Cnyn. Rd./Medical Center Dr.	AM	18.4	B	16.5	B	16.4	B	12.9	B	13.8	B
	PM	22.7	C	22.4	C	23.7	C	15.3	B	16.1	B
5. Telegraph Cnyn. Rd./Paseo Ranchero/ Heritage Rd.	AM	30.1	C	29.5	C	33.2	C	33.6	C	34.1	C
	PM	40.2	D	33.8	C	38.5	D	39.5	D	38.9	D
6. Telegraph Cnyn. Rd./Otay Lakes Rd./ La Media Rd.	AM	29.6	C	27.4	C	28.5	C	29.1	C	28.8	C
	PM	33.4	C	30.8	C	32.0	C	32.2	C	32.5	C
7. Otay Lakes Rd./SR 125 SB Ramps	AM	[1]	[1]	16.5	B	17.6	B	20.3	C	29.3	C
	PM	[1]	[1]	24.9	C	21.7	C	22.8	C	36.2	D
8. Otay Lakes Rd./ SR 125 NB Ramps	AM	[1]	[1]	6.0	A	6.6	A	7.8	A	18.8	B
	PM	[1]	[1]	8.8	A	7.9	A	9.2	A	20.1	D

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 16 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
9. Otay Lakes Rd./Eastlake Pkwy.	AM	37.9	D	42.4	D	54.5	D	52.0	D	52.2	D
	PM	39.0	D	43.6	D	51.7	D	53.8	D	52.6	D
10. Otay Lakes Rd./Hunte Pkwy.	AM	35.0	C	37.1	D	39.8	D	42.4	D	44.8	D
	PM	27.6	C	27.3	C	29.1	C	32.4	C	30.6	C
11. Palomar St./Oleander Ave.	AM	10.0	A	10.7	B	10.8	B	28.7	C	29.3	C
	PM	10.0	A	10.2	B	10.4	B	19.4	B	20.2	C
12. Palomar St./Brandywine Ave.	AM	34.6	C	34.2	C	33.7	C	39.4	D	39.7	D
	PM	42.9	D	41.8	D	40.7	D	41.7	D	42.5	D
13. Palomar St./Heritage Rd.	AM	28.9	C	24.6	C	23.8	C	24.5	C	24.6	C
	PM	42.7	D	32.9	C	32.8	C	34.0	C	34.2	C
14. Palomar St./La Media Rd.	AM	32.5	C	35.9	D	51.0	D	30.8	C	31.4	C
	PM	37.4	D	36.9	D	53.2	D	39.1	D	39.1	D
15. Olympic Pkwy./I-805 SB Ramps	AM	30.3	C	41.7	D	42.1	D	37.3	D	26.5	C
	PM	52.9	D	50.2	D	39.0	D	43.3	D	31.4	C
16. Olympic Pkwy./I-805 NB Ramps	AM	41.9	D	51.1	D	53.4	D	44.7	D	35.4	D
	PM	27.7	C	39.6	D	33.2	C	31.6	C	28.6	C

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicates LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 16 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
17. Olympic Pkwy./Oleander Ave.	AM	35.2	D	37.4	D	38.6	D	28.0	C	34.0	C
	PM	29.7	C	30.0	C	29.6	C	24.0	C	27.6	C
18. Olympic Pkwy./Brandywine Ave.	AM	45.5	D	35.0	C	31.8	C	34.9	C	38.9	D
	PM	39.6	D	35.6	D	31.7	C	32.9	C	36.8	D
19. Olympic Pkwy./Heritage Rd.	AM	21.7	C	34.3	C	43.5	D	47.9	D	40.5	D
	PM	26.0	C	36.0	D	41.9	D	44.0	D	41.2	D
20. Olympic Pkwy./La Media Rd.	AM	30.5	C	36.4	D	43.7	D	41.3	D	41.1	D
	PM	30.7	C	38.3	D	44.0	D	43.1	D	45.5	D
21. Olympic Pkwy./Palomar St.	AM	29.8	C	40.6	D	37.0	D	33.8	C	37.3	D
	PM	36.2	D	43.8	D	30.8	C	29.9	C	31.4	C
22. Olympic Pkwy./SR 125 SB Ramps	AM	[1]	[1]	14.6	B	15.4	B	15.8	B	19.1	B
	PM	[1]	[1]	15.1	B	15.7	B	16.1	B	22.0	C
23. Olympic Pkwy./SR 125 NB Ramps	AM	[1]	[1]	7.0	A	6.5	A	6.7	A	**34.3**	**C**
	PM	[1]	[1]	4.8	A	4.9	A	5.2	A	**23.7**	**C**
24. Olympic Pkwy./Eastlake Pkwy.	AM	29.2	C	34.0	C	51.7	D	45.4	D	52.4	D
	PM	32.6	C	33.0	C	38.8	D	37.8	D	38.4	D

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 16 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
25. Olympic Pkwy./Hunte Pkwy.	AM	35.8	D	40.0	D	41.3	D	40.7	D	44.7	D
	PM	25.2	C	32.6	C	34.1	C	33.8	C	34.3	C
26. Main St./I-805 SB Ramps	AM	24.6	C	24.7	C	23.8	C	25.6	C	24.6	C
	PM	25.5	C	27.7	C	29.6	C	36.5	D	33.1	C
27. Main St./I-805 NB Ramps	AM	18.5	B	21.0	B	20.4	C	21.5	C	20.6	C
	PM	21.0	C	24.3	C	29.0	C	36.8	D	25.0	C
28. Main St./Oleander Ave.	AM	9.3	A	14.2	B	12.7	B	14.1	B	21.9	C
	PM	8.4	A	19.1	B	18.5	B	20.1	C	37.8	D
29. Main St./Brandywine Ave.	AM	31.9	C	31.8	C	29.3	C	29.1	C	28.9	C
	PM	36.6	D	37.0	D	32.3	C	33.1	C	33.5	C
30. Birch Rd./Heritage Rd.	AM	[1]	[1]	11.6	B	19.2	B	16.3	B	14.6	B
	PM	[1]	[1]	12.3	B	17.4	B	15.4	B	15.9	B
31. Birch Rd./La Media Rd.	AM	[1]	[1]	29.6	C	35.3	D	35.5	D	38.1	D
	PM	[1]	[1]	32.0	C	39.6	D	43.8	D	49.1	D

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 16 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
32. Birch Rd./SR 125/SB Ramps	AM	1	1	11.4	B	18.9	B	21.	B	21.3	C
	PM	1	1	7.7	A	13.8	B	14.0	B	18.5	B
33. Birch Rd./ SR 125/NB Ramps	AM	1	1	18.2	B	10.7	B	7.2	A	14.3	B
	PM	1	1	19.2	B	11.6	B	7.3	A	19.9	B
34. Birch Rd./Eastlake Pkwy.	AM	1	1	36.3	D	42.4	D	35.8	D	36.6	D
	PM	1	1	35.2	D	41.0	D	34.3	C	35.2	D
35. Rock Mountain Rd./La Media Rd.	AM	1	1	1	1	29.0	C	32.3	C	32.0	C
	PM	1	1	1	1	30.6	C	35.8	D	35.4	D
36. Rock Mountain Rd./SR 125 SB Ramps	AM	1	1	1	1	11.2	B	14.6	B	20.8	C
	PM	1	1	1	1	11.9	B	15.6	B	21.0	C
37. Rock Mountain Rd./SR 125 NB Ramps	AM	1	1	1	1	21.3	C	19.4	C	20.5	C
	PM	1	1	1	1	22.4	C	21.2	C	24.1	C
38. Hunte Pkwy./Eastlake Pkwy.	AM	1	1	22.9	C	28.9	C	30.7	C	26.7	C
	PM	1	1	22.2	C	30.7	C	34.2	C	29.2	C

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 16 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 1 THROUGH 5

INTERSECTION	PEAK HOUR	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
39. Heritage Rd./Main St.	AM	1	1	28.2	C	30.9	C	31.2	C	32.2	C
	PM	1	1	28.8	C	31.8	C	32.5	C	36.6	D
40. Rock Mountain Rd./Main St.	AM	1	1	1	1	27.0	C	25.2	C	22.7	C
	PM	1	1	1	1	26.0	C	23.5	C	19.6	B
41. Main St./La Media Rd.	AM	1	1	1	1			28.8	C	29.9	C
	PM	1	1	1	1			28.7	C	30.6	C
42. Main St./SR 125 SB Ramps	AM	1	1	1	1	1	1	9.9	B	17.9	B
	PM	1	1	1	1	1	1	5.0	A	12.6	B
43. Main St./SR 125 N Ramps	AM	1	1	1	1	1	1	7.2	A	14.7	B
	PM	1	1	1	1	1	1	7.3	A	15.1	B

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

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Table 17

SEGMENT OPERATIONS - SCENARIOS 1 THROUGH 5

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
TELEGRAPH CANYON ROAD												
I-805 to Oleander Ave.	7-Ln Major Street	46,700									43,000	C
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000									43,000	B
Medical Center Dr. to Paseo Ranchero/Heritage Rd.	6-Ln Prime Arterial	50,000									42,900	B
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd.	6-Ln Prime Arterial	50,000			38,600	B	42,000	B	46,100	C	34,200	A
OTAY LAKES ROAD												
North of Telegraph Canyon Rd.	4-Ln Major Street	30,000			24,900	B	26,100	B	25,000	B	26,200	B
La Media Rd. to SR 125	6-Ln Prime Arterial	50,000			39,400	B	41,900	B	46,500	C	42,500	B
SR 125 to Eastlake Pkwy.	7-Ln Prime Arterial	58,300	41,800	A	47,700	B	51,900	C	58,300	C		
Eastlake Pkwy. to Lane Ave.	6-Ln Prime Arterial	50,000	31,700	A	39,600	B	48,700	C				
PALOMAR STREET												
I-805 to Oleander Ave.	4-Ln Major Street	30,000	8,100	A	7,900	A	8,200	A	19,900	A	18,700	A
Oleander Ave. to Medical Center Dr.	4-Ln Major Street	30,000	4,300	A	4,200	A	4,600	A	14,800	A	13,500	A
Medical Center Dr. to Heritage Rd.	4-Ln Major Street	30,000	12,600	A	16,800	A	16,600	A	21,000	A	19,500	A
Heritage Rd. to La Media Rd.	4-Ln Major Street	30,000	10,900	A	10,100	A	10,100	A	10,600	A	10,500	A
La Media Rd. to Olympic Pkwy.	4-Ln Major Street	30,000	23,700	B	25,400	B	26,800	C	25,000	B	27,800	C
OLYMPIC PARKWAY												
I-805 to Medical Center Dr.	6-Ln Prime Arterial	50,000	49,000	C							44,900	C
Medical Center Dr. to Heritage Rd.	6-Ln Prime Arterial	50,000	44,400	C	47,500	C			50,000	C	36,400	A
Heritage Rd. to La Media Rd.	6-Ln Prime Arterial	50,000	32,200	A	35,500	A	49,700	C			40,200	B
La Media Rd. to Palomar St.	6-Ln Prime Arterial	50,000	21,300	A	28,500	A	28,400	A	29,000	A	26,300	A
Palomar St. to SR 125	6-Ln Prime Arterial	50,000	34,300	A	42,300	B	41,700	B	39,000	B	41,300	B
SR 125 to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	37,800	B					48,600	C		
Eastlake Pkwy. to Hunte Pkwy.	6-Ln Prime Arterial	50,000	17,000	A	35,100	A	29,900	A	29,900	A	33,900	A

Notes:
1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 17

SEGMENT OPERATIONS - SCENARIOS 1 THROUGH 5

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
BIRCH ROAD												
La Media Rd. to SR 125	6-Ln Major Street	40,000	2,400	A	21,700	A	39,000	C	32,300	B	25,600	A
SR 125 to Eastlake Pkwy.	6-Ln Major Street	50,000	2,400	A	16,200	A	41,600	B	33,300	A	37,300	A
ROCK MOUNTAIN ROAD												
Main St. to La Media Rd.	Class I Collector	22,000	1	1	1	1	12,500	A	10,200	A	7,600	A
La Media Rd. to SR 125	Class I Collector	22,000	1	1	1	1	[illegible]	[illegible]	22,000	C	19,900	C
SR 125 to Eastlake Pkwy.	Class I Collector	22,000	1	1	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAIN STREET												
I-805 to Oleander Ave.	6-Ln Prime Arterial	50,000	21,000	A	23,500	A	37,000	A	44,000	C	47,000	C
Oleander Ave. to Brandywine Ave.	6-Ln Prime Arterial	50,000	20,200	A	23,100	A	36,300	A	42,600	B	44,300	C
Brandywine Ave. to Heritage Rd.	6-Ln Prime Arterial	50,000	17,100	A	14,000	A	24,700	A	30,100	A	36,800	A
Heritage Rd. to Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	1	1	16,700	A	21,400	A	21,000	A
Rock Mountain Rd. to La Media Rd.	6-Ln Prime Arterial	50,000	1	1	1	1	4,800	A	12,000	A	15,100	A
La Media Rd. to SR 125 SB Ramps	6-Ln Prime Arterial	50,000	1	1	1	1	1	1	12,700	A	12,500	A
OLEANDER AVENUE												
Telegraph Canyon Rd. to Palomar St.	Class II Collector	12,000	11,300	C	11,100	C	11,100	C	10,000	B	9,700	B
Palomar St. to Olympic Pkwy.	Class II Collector	12,000	6,700	A	6,500	A	6,300	A	5,500	A	5,500	A
Olympic Pkwy. to Main St.	Class II Collector	12,000	4,400	A	4,400	A	4,700	A	5,500	A	8,800	A
MEDICAL CENTER DRIVE												
Telegraph Canyon Rd. to Palomar St.	Class I Collector	22,000	17,200	B	15,500	A	15,700	A	11,100	A	10,800	A
BRANDYWINE AVENUE												
Palomar St. to Olympic Pkwy.	Class I Collector	22,000	9,600	A	7,700	A	7,100	A	7,500	A	8,600	A
Olympic Pkwy. to Main St.	Class I Collector	22,000	9,800	A	7,700	A	6,200	A	6,600	A	6,800	A

Notes:
1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 17

SEGMENT OPERATIONS - SCENARIOS 1 THROUGH 5

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 1 (2005)		SCENARIO 2 (2010)		SCENARIO 3 (2015)		SCENARIO 4 (2030)		SCENARIO 5 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
PASEO RANCHERO/HERITAGE ROAD												
North of Telegraph Canyon Rd.	Class I Collector	22,000	13,400	A	15,000	A	18,000	B	18,300	B	20,600	C
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	17,500	A	19,400	A	26,700	A	27,300	A	27,500	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	21,900	A	32,200	A	42,700	B	44,400	C	46,400	C
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	1	1	15,900	A	24,500	A	29,200	A	33,800	A
Birch Rd. to Main St.	6-Ln Prime Arterial	50,000	1	1	1	A	17,500	A	24,500	A	30,400	A
LA MEDIA ROAD												
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	11,600	A	9,200	A	12,200	A	14,000	A	12,900	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	12,400	A	15,200	A	20,900	A	24,300	A	26,300	A
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	8,200	A	28,500	A	45,700	C	45,200	C	40,500	B
Birch Rd. to Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	1	1	8,300	A	16,000	A	22,700	A
Rock Mountain Rd. to Main St.	6-Ln Prime Arterial	50,000	1	1	1	1	4,600	A	18,800	A	25,100	A
EASTLAKE PARKWAY												
Fenton St. to Otay Lakes Rd.	4-Ln Major Street	30,000	19,100	A	17,700	A	18,500	A	21,800	A	29,400	C
Otay Lakes Rd. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	35,100	A	35,100	A	36,900	A	38,400	A	37,200	A
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	6,900	A	14,900	A	27,900	A	24,600	A	24,800	A
Birch Rd. to Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	7,600	A	35,400	A	26,700	A	24,600	A
HUNTE PARKWAY												
Otay Lakes Rd. to Clubhouse Dr.	4-Ln Major Street	30,000	8,700	A	6,400	A	8,700	A	10,200	A	9,900	A
Clubhouse Dr. to Olympic Pkwy.	4-Ln Major Street	30,000	8,300	A	15,100	A	19,400	A	19,900	A	22,000	A
Olympic Pkwy. to Estlake Pkwy.	4-Ln Major Street	30,000	1	1	2,400	A	20,400	A	22,700	B	21,100	A

Notes:
1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.

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Table 18

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Telegraph Cnyn. Rd./I-805 SB Ramps	AM	31.4	C	30.4	C	27.2	C	21.9	C	25.7	C
	PM	65.6	E	52.6	D	51.0	D	38.4	D	39.4	D
2. Telegraph Cnyn. Rd./I-805 NB Ramps	AM	48.5	D	23.4	C	22.1	C	23.3	C	22.2	C
	PM	26.2	C	19.6	B	22.8	C	24.6	C	26.3	C
3. Telegraph Cnyn. Rd./Oleander Ave.	AM	20.3	C	20.4	C	20.9	C	27.9	C	26.0	C
	PM	22.5	C	22.6	C	23.2	C	37.0	D	30.0	C
4. Telegraph Cnyn. Rd./Medical Center Dr.	AM	17.9	B	16.7	B	16.5	B	15.3	B	16.5	B
	PM	22.6	C	21.3	C	21.1	C	19.7	B	19.3	B
5. Telegraph Cnyn. Rd./Paseo Ranchero/ Heritage Rd.	AM	30.7	C	32.2	C	33.8	C	34.0	C	28.3	C
	PM	34.3	C	36.9	D	38.9	D	39.5	D	31.6	C
6. Telegraph Cnyn. Rd./Otay Lakes Rd./ La Media Rd.	AM	29.6	C	28.8	C	29.5	C	28.9	C	30.9	C
	PM	33.3	C	32.3	C	32.9	C	32.2	C	34.4	C
7. Otay Lakes Rd./SR 125 SB Ramps	AM	1	1	22.4	C	23.1	C	26.6	C	36.5	D
	PM	1	1	20.9	C	22.8	C	33.6	C	52.8	D
8. Otay Lakes Rd./ SR 125 NB Ramps	AM	1	1	12.4	B	25.0	C	42.4	D	48.6	D
	PM	1	1	29.7	C	23.1	C	39.1	D	51.9	D

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 18 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
9. Otay Lakes Rd./Eastlake Pkwy.	AM	39.7	D	36.4	D	39.4	D	44.4	D	45.4	D
	PM	38.7	D	40.1	D	40.9	D	48.4	D	43.7	D
10. Otay Lakes Rd./Hunte Pkwy.	AM	35.2	D	47.5	D	39.1	D	40.8	D	42.1	D
	PM	27.7	C	35.1	D	28.9	C	29.7	C	30.1	C
11. Palomar St./Oleander Ave.	AM	10.2	B	10.5	B	10.0	B	33.2	C	33.2	C
	PM	9.9	A	10.1	B	9.6	A	20.8	C	20.8	C
12. Palomar St./Brandywine Ave.	AM	35.1	D	33.0	C	32.4	C	31.7	C	32.2	C
	PM	43.7	D	39.8	D	36.9	D	36.7	D	36.8	D
13. Palomar St./Heritage Rd.	AM	28.2	C	24.2	C	23.8	C	23.7	C	24.4	C
	PM	35.8	D	33.8	C	33.7	C	33.6	C	34.1	C
14. Palomar St./La Media Rd.	AM	32.5	C	32.6	C	32.4	C	32.4	C	32.7	C
	PM	37.3	D	38.1	D	38.1	D	38.5	D	38.8	D
15. Olympic Pkwy./I-805 SB Ramps	AM	29.3	C	43.0	D	45.5	D	47.3	D	28.3	C
	PM	50.8	D	51.0	D	52.2	D	52.2	D	45.2	D
16. Olympic Pkwy./I-805 NB Ramps	AM	38.4	D	44.8	D	49.0	D	53.2	D	32.3	C
	PM	28.0	C	31.4	C	32.9	C	34.4	C	26.8	C

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 18 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
17. Olympic Pkwy./Oleander Ave.	AM	36.0	D	34.2	C	35.4	D	35.4	D	36.3	D
	PM	29.9	C	29.0	C	30.0	C	29.5	C	30.9	C
18. Olympic Pkwy./Brandywine Ave.	AM	46.3	D	43.1	D	39.2	D	39.2	D	37.2	D
	PM	39.5	D	44.1	D	33.8	C	33.9	C	34.8	C
19. Olympic Pkwy./Heritage Rd.	AM	25.2	C	41.2	D	48.3	D	42.9	D	46.3	D
	PM	27.6	C	45.5	D	43.4	D	43.7	D	41.7	D
20. Olympic Pkwy./La Media Rd.	AM	31.4	C	41.1	D	44.5	D	44.1	D	43.3	D
	PM	33.8	C	40.6	D	44.6	D	43.8	D	42.5	D
21. Olympic Pkwy./Palomar St.	AM	28.6	C	33.7	C	33.1	C	29.6	C	34.4	C
	PM	34.3	C	42.0	D	41.8	D	33.1	D	43.1	D
22. Olympic Pkwy./SR 125 SB Ramps	AM	[1]	[1]	16.6	B	15.2	B	15.3	B	19.5	B
	PM	[1]	[1]	17.8	B	15.1	B	14.9	B	23.6	C
23. Olympic Pkwy./SR 125 N Ramps	AM	[1]	[1]	10.7	B	12.8	B	12.8	B	14.5	B
	PM	[1]	[1]	7.0	A	8.6	A	9.4	A	12.1	B

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 18 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
24. Olympic Pkwy./Eastlake Pkwy.	AM	25.1	C	42.4	D	49.4	D	44.0	D	46.7	D
	PM	25.9	C	37.9	D	39.2	D	37.8	D	38.2	D
25. Olympic Pkwy./Hunte Pkwy.	AM	28.9	C	35.3	D	40.4	D	41.3	D	45.9	D
	PM	25.8	C	27.9	C	33.1	C	34.7	C	34.6	C
26. Main St./I-805 SB Ramps	AM	24.8	C	27.3	C	26.9	C	28.7	C	26.3	C
	PM	25.2	C	37.3	D	52.9	D	48.7	D	45.5	D
27. Main St./I-805 NB Ramps	AM	18.8	B	20.4	C	23.5	C	25.7	C	23.2	C
	PM	21.4	C	27.6	C	44.0	D	52.1	D	39.2	D
28. Main St./Oleander Ave.	AM	15.2	B	12.6	B	13.5	B	6.3	A	15.6	B
	PM	20.1	C	18.0	B	35.9	D	4.4	A	21.1	C
29. Main St./Brandywine Ave.	AM	31.9	C	32.6	C	28.9	C	29.0	C	30.1	C
	PM	37.5	D	42.7	D	37.5	D	35.5	D	36.1	D
30. Birch Rd./Heritage Rd.	AM	1	1	20.9	C	16.0	B	12.9	B	14.9	B
	PM	1	1	17.1	B	15.1	B	15.0	B	16.1	B

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 18 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
		DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
31. Birch Rd./La Media Rd.	AM	1	1	32.3	D	35.8	D	41.3	D	39.6	D
	PM	1	1	35.6	D	39.3	D	37.5	D	40.8	D
32. Birch Rd./SR 125/SB Ramps	AM	1	1	14.9	B	18.5	B	15.7	B	19.6	B
	PM	1	1	9.0	A	13.4	B	10.7	B	15.5	B
33. Birch Rd./ SR 125/NB Ramps	AM	1	1	15.4	B	12.6	B	12.6	B	16.3	B
	PM	1	1	20.4	C	9.6	A	14.4	B	24.2	C
34. Birch Rd./Eastlake Pkwy.	AM	23.2	C	54.9	D	39.5	D	33.6	C	35.3	D
	PM	28.2	C	52.0	D	39.9	D	34.2	C	34.6	C
35. Rock Mountain Rd./La Media Rd.	AM	1	1	1	1	40.2	D	**68.4**	**E**	**66.5**	**E**
	PM	1	1	1	1	47.7	D	**95.7**	**F**	**80.9**	**F**
36. Rock Mountain Rd./SR 125 SB Ramps	AM	1	1	1	1	10.5	B	12.3	B	21.1	C
	PM	1	1	1	1	11.0	B	12.5	B	22.5	C
37. Rock Mountain Rd./SR 125 NB Ramps	AM	1	1	1	1	20.2	C	24.2	C	22.3	C
	PM	1	1	1	1	22.3	C	26.3	C	26.4	C

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
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Table 18 (Continued)

PEAK HOUR INTERSECTION OPERATIONS
SCENARIOS 6 THROUGH 10

INTERSECTION	PEAK HOUR	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
38. Hunte Pkwy./Eastlake Pkwy.	AM	1	1	19.8	B	30.0	C	27.9	C	30.5	C
	PM	1	1	22.2	C	31.5	C	32.0	C	33.6	C
39. Heritage Rd./Main St.	AM	30.2	C	35.2	D	31.7	C	33.3	C	37.1	D
	PM	28.1	C	29.4	C	35.6	D	33.7	C	36.7	D
40. Rock Mountain Rd./Main St.	AM	3	3	3	3	3	3	3	3	3	3
	PM	3	3	3	3	3	3	3	3	3	3
41. Main St./La Media Rd.	AM	3	3	3	3	3	3	3	3	3	3
	PM	3	3	3	3	3	3	3	3	3	3
42. Main St./SR 125 SB Ramps	AM	3	3	3	3	3	3	3	3	3	3
	PM	3	3	3	3	3	3	3	3	3	3
43. Main St./SR 125 N Ramps	AM	3	3	3	3	3	3	3	3	3	3
	PM	3	3	3	3	3	3	3	3	3	3

Notes:
1. Intersection does not exist in that scenario.
2. Bold and shading indicate LOS E or LOS F operations.
3. Intersection does not exist since Main Street terminates at Rock Mountain Road.

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Table 19

SEGMENT OPERATIONS - SCENARIOS 6 THROUGH 10

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
TELEGRAPH CANYON ROAD												
I-805 to Oleander Ave.	7-Ln Major Street	46,700	68,900	F	58,000	F	55,100	F	57,800	F	49,400	D
Oleander Ave. to Medical Center Dr.	6-Ln Prime Arterial	50,000	56,000	D	56,500	E	49,400	C	56,500	E	48,500	C
Medical Center Dr. to Paseo Ranchero/Heritage Rd.	6-Ln Prime Arterial	50,000	53,000	C	55,200	D	54,300	D	45,700	C	47,600	C
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd.	6-Ln Prime Arterial	50,000	53,500	D	40,500	B	41,700	B	44,000	C	33,800	A
OTAY LAKES ROAD												
North of Telegraph Canyon Rd.	4-Ln Major Street	30,000	33,000	D	27,900	C	27,400	C	25,400	B	24,900	B
La Media Rd. to SR 125	6-Ln Prime Arterial	50,000	58,000	C	40,100	A	42,300	A	44,900	B	41,900	A
SR 125 to Eastlake Pkwy.	7-Ln Prime Arterial	58,300	43,100	A	47,600	B	52,000	C	57,800	C	55,100	D
Eastlake Pkwy. to Lane Ave.	6-Ln Prime Arterial	50,000	31,900	A	39,600	B	48,700	C	53,900	D	57,600	E
PALOMAR STREET												
I-805 to Oleander Ave.	4-Ln Major Street	30,000	8,400	A	8,900	A	8,000	A	7,300	A	7,400	A
Oleander Ave. to Medical Center Dr.	4-Ln Major Street	30,000	4,600	A	5,200	A	4,300	A	3,600	A	3,600	A
Medical Center Dr. to Heritage Rd.	4-Ln Major Street	30,000	21,800	A	18,200	A	16,400	A	16,200	A	15,800	A
Heritage Rd. to La Media Rd.	4-Ln Major Street	30,000	10,900	A	10,400	A	10,300	A	10,600	A	10,700	A
La Media Rd. to Olympic Pkwy.	4-Ln Major Street	30,000	20,700	A	26,100	B	26,500	C	24,900	B	27,900	C
OLYMPIC PARKWAY												
I-805 to Medical Center Dr.	6-Ln Prime Arterial	50,000	49,200	C	56,400	E	55,900	D	56,200	D	43,600	B
Medical Center Dr. to Heritage Rd.	6-Ln Prime Arterial	50,000	44,300	C	55,000	D	48,300	C	47,100	C	35,800	A
Heritage Rd. to La Media Rd.	6-Ln Prime Arterial	50,000	30,500	A	43,500	B	44,500	C	43,100	B	34,900	A
La Media Rd. to Palomar St.	6-Ln Prime Arterial	50,000	19,300	A	28,200	A	29,500	A	30,200	A	25,700	A
Palomar St. to SR 125	6-Ln Prime Arterial	50,000	26,000	A	40,900	B	40,800	B	40,100	B	42,700	B
SR 125 to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	29,600	A	51,800	D	49,200	C	48,500	C	55,600	D
Eastlake Pkwy. to Hunte Pkwy.	6-Ln Prime Arterial	50,000	15,500	A	31,700	A	28,900	A	28,800	A	34,500	A

Notes:

1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 19 (Continued)

SEGMENT OPERATIONS - SCENARIOS 6 THROUGH 10

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
BIRCH ROAD												
La Media Rd. to SR 125	6-Ln Major Street	40,000	900	A	37,000	C	34,800	B	27,800	A	27,100	A
SR 125 to Eastlake Pkwy.	6-Ln Prime Arterial	50,000	900	A	32,500	A	40,300	B	28,800	A	35,100	A
ROCK MOUNTAIN ROAD												
Main St. to La Media Rd.	Class I Collector	22,000	1	1	1	1	28,200	E	36,500	F	33,600	F
La Media Rd. to SR 125	Class I Collector	22,000	1	1	1	1	37,700	F	46,200	F	50,600	F
SR 125 to Eastlake Pkwy.	Class I Collector	22,000	1	1	1	1	48,500	F	60,600	F	66,200	F
MAIN STREET												
I-805 to Oleander Ave.	6-Ln Prime Arterial	50,000	21,000	A	35,500	A	49,600	C	53,000	D	49,700	C
Oleander Ave. to Brandywine Ave.	6-Ln Prime Arterial	50,000	20,300	A	34,600	A	48,600	C	52,000	D	48,000	C
Brandywine Ave. to Heritage Rd.	6-Ln Prime Arterial	50,000	17,100	A	28,700	A	38,900	B	42,200	B	40,600	B
Heritage Rd. to Rock Mountain Rd.	3	3	3	3	3	3	3	3	3	3	3	3
Rock Mountain Rd. to La Media Rd.	3	3	3	3	3	3	3	3	3	3	3	3
La Media Rd. to SR 125 SB Ramps	3	3	3	3	3	3	3	3	3	3	3	3
OLEANDER AVENUE												
Telegraph Canyon Rd. to Palomar St.	Class II Collector	12,000	11,100	C	11,100	C	7,900	A	12,100	D	11,400	C
Palomar St. to Olympic Pkwy.	Class II Collector	12,000	6,700	A	6,300	A	6,400	A	6,300	A	6,300	A
Olympic Pkwy. to Main St.	Class II Collector	12,000	4,400	A	4,600	A	5,200	A	5,100	A	5,700	A
MEDICAL CENTER DRIVE												
Telegraph Canyon Rd. to Palomar St.	Class I Collector	22,000	17,200	B	15,700	A	15,600	A	14,100	A	14,500	A
BRANDYWINE AVENUE												
Palomar St. to Olympic Pkwy.	Class I Collector	22,000	9,700	A	8,400	A	7,100	A	7,300	A	8,200	A
Olympic Pkwy. to Main St.	Class I Collector	22,000	10,000	A	11,000	A	5,700	A	6,000	A	6,600	A

Notes:

1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.
3. Main Street does not extend east of Heritage Road in the proposed circulation element being analyzed in these scenarios since they were removed for MSCP purposes.

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 19 (Continued)

SEGMENT OPERATIONS - SCENARIOS 6 THROUGH 10

SEGMENT	EXISTING ROADWAY CLASSIFICATION	LOS C CAPACITY	SCENARIO 6 (2005)		SCENARIO 7 (2010)		SCENARIO 8 (2015)		SCENARIO 9 (2030)		SCENARIO 10 (Buildout)	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
PASEO/RANCHERO/HERITAGE ROAD												
North of Telegraph Canyon Rd.	Class I Collector	22,000	13,500	A	17,000	B	19,100	B	19,100	B	22,000	C
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	17,800	A	25,000	A	26,900	A	27,200	A	27,500	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	21,500	A	39,600	B	43,300	B	43,600	B	46,200	C
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	1	1	21,900	A	30,700	A	32,700	A	36,500	A
Birch Rd. to Main St.	6-Ln Prime Arterial	50,000	1	1	1	1	21,900	A	25,100	A	31,700	A
LA MEDIA ROAD												
Telegraph Canyon Rd. to Palomar St.	6-Ln Prime Arterial	50,000	11,400	A	11,700	A	14,200	A	13,200	A	11,300	A
Palomar St. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	13,200	A	17,200	A	23,200	A	22,900	A	24,000	A
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	8,400	A	41,700	B	43,000	B	39,100	B	34,800	A
Birch Rd. to Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	1	1	10,400	A	12,000	A	12,200	A
South of Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	1	1	14,800	A	16,400	A	15,600	A
EASTLAKE PARKWAY												
Fenton St. to Otay Lakes Rd.	4-Ln Major Street	30,000	18,500	A	17,900	A	18,800	A	21,500	A	22,000	A
Otay Lakes Rd. to Olympic Pkwy.	6-Ln Prime Arterial	50,000	35,500	A	35,200	A	36,600	A	36,700	A	35,300	A
Olympic Pkwy. to Birch Rd.	6-Ln Prime Arterial	50,000	100	A	26,000	A	26,600	A	27,800	A	27,100	A
Birch Rd. to Rock Mountain Rd.	6-Ln Prime Arterial	50,000	1	1	44,600	C	34,900	A	26,100	A	26,400	A
HUNTE PARKWAY												
Otay Lakes Rd. to Clubhouse Dr.	4-Ln Major Street	30,000	8,900	A	7,200	A	6,600	A	9,900	A	9,900	A
Clubhouse Dr. to Olympic Pkwy.	4-Ln Major Street	30,000	6,800	A	16,200	A	19,600	A	19,300	A	21,400	A
Olympic Pkwy. to Eastlake Pkwy.	4-Ln Major Street	30,000	1	1	7,800	A	21,800	A	24,200	B	22,500	A

Notes:
1. Segment does not exist in that scenario.
2. Bold and shading indicate LOS D, LOS E or LOS F operations.

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20

FREEWAY MAINLINE OPERATIONS
SCENARIO 1

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	17,510	0.53	0.44	9280	7704	181	281	9461	7985	0.893	0.753	D	C
	SB	4+1	10,600	17,510	0.47	0.56	8230	9806	283	223	8513	10029	0.803	0.946	D	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	13,685	0.53	0.44	7253	6021	181	281	7434	6302	0.701	0.595	C	B
	SB	4+1	10,600	13,685	0.47	0.56	6432	7664	283	223	6715	7887	0.633	0.744	C	C
Olympic Pkwy. to Main St.	NB	4+1	10,600	12,750	0.53	0.44	6758	5610	152	125	6910	5735	0.652	0.541	C	B
	SB	4+0	8,800	12,750	0.47	0.56	5993	7140	305	167	6298	7307	0.716	0.830	C	D
Main St. to Palm Ave.	NB	4+1	10,600	11,050	0.53	0.44	5857	4862	152	125	6009	4987	0.567	0.470	B	B
	SB	4+1	10,600	11,050	0.47	0.56	5194	6188	305	167	5499	6355	0.519	0.600	B	B

1-4-6

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 2

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	17,510	0.53	0.44	9280	7704	181	281	9461	7985	0.893	0.753	D	C
	SB	4+1	10,600	17,510	0.47	0.56	8230	9806	283	223	8513	10029	0.803	0.946	D	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	14,025	0.53	0.44	7433	6171	181	281	7614	6452	0.718	0.609	C	B
	SB	4+1	10,600	14,025	0.47	0.56	6592	7854	283	223	6875	8077	0.649	0.762	C	C
Olympic Pkwy. to Main St.	NB	4+1	10,600	13,345	0.53	0.44	7073	5872	152	125	7225	5997	0.682	0.566	C	B
	SB	4+0	8,800	13,345	0.47	0.56	6272	7473	305	167	6577	7640	0.747	0.868	C	D
Main St. to Palm Ave.	NB	4+1	10,600	11,645	0.53	0.44	6172	5124	152	125	6324	5249	0.597	0.495	B	B
	SB	4+1	10,600	11,645	0.47	0.56	5473	6521	305	167	5778	6688	0.545	0.631	B	C
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	3,970	0.53	0.44	2104	1747	181	281	2285	2028	0.260	0.230	A	A
	SB	4	8,800	3,970	0.47	0.56	1866	2223	283	223	2149	2446	0.244	0.278	A	A
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	2,474	0.53	0.44	1311	1088	152	125	1463	1213	0.166	0.138	A	A
	SB	4	8,800	2,474	0.47	0.56	1163	1385	305	167	1468	1552	0.167	0.176	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	1,530	0.53	0.44	811	673	152	125	963	798	0.109	0.091	A	A
	SB	4	8,800	1,530	0.47	0.56	719	857	305	167	1024	1024	0.116	0.116	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	2,125	0.53	0.44	1126	935	152	125	1278	1060	0.145	0.120	A	A
	SB	4	8,800	2,125	0.47	0.56	999	1190	305	167	1304	1357	0.148	0.154	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	2,125	0.53	0.44	1126	935	152	125	1278	1060	0.145	0.120	A	A
	SB	4	8,800	2,125	0.47	0.56	999	1190	305	167	1304	1357	0.148	0.154	A	A
South of Main St.	NB	4	8,800	2,159	0.53	0.44	1144	950	152	125	1296	1075	0.147	0.122	A	A
	SB	4	8,800	2,159	0.47	0.56	1015	1209	305	167	1320	1376	0.150	0.156	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 3

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	19,040	0.53	0.44	10091	8378	181	281	10272	8659	0.969	0.817	E	D
	SB	4+1	10,600	19,040	0.47	0.56	8949	10662	283	223	9232	10885	0.871	1.027	D	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	15,725	0.53	0.44	8334	6919	181	281	8515	7200	0.803	0.679	D	C
	SB	4+1	10,600	15,725	0.47	0.56	7391	8806	283	223	7674	9029	0.724	0.852	C	D
Olympic Pkwy. to Main St.	NB	4+1	10,600	14,620	0.53	0.44	7749	6433	152	125	7901	6558	0.745	0.619	C	B
	SB	4+0	8,800	14,620	0.47	0.56	6871	8187	305	167	7176	8354	0.816	0.949	D	E
Main St. to Palm Ave.	NB	4+1	10,600	13,005	0.53	0.44	6893	5722	152	125	7045	5847	0.665	0.552	C	B
	SB	4+1	10,600	13,005	0.47	0.56	6112	7283	305	167	6417	7450	0.605	0.703	B	C
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	5,534	0.53	0.44	2933	2435	181	281	3114	2716	0.354	0.309	A	A
	SB	4	8,800	5,534	0.47	0.56	2601	3099	283	223	2884	3322	0.328	0.377	A	A
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	4,038	0.53	0.44	2140	1777	152	125	2292	1902	0.260	0.216	A	A
	SB	4	8,800	4,038	0.47	0.56	1898	2261	305	167	2203	2428	0.250	0.276	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	2,907	0.53	0.44	1541	1279	152	125	1693	1404	0.192	0.160	A	A
	SB	4	8,800	2,907	0.47	0.56	1366	1628	305	167	1671	1795	0.190	0.204	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	2,491	0.53	0.44	1320	1096	152	125	1472	1221	0.167	0.139	A	A
	SB	4	8,800	2,491	0.47	0.56	1171	1395	305	167	1476	1562	0.168	0.177	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	3,485	0.53	0.44	1847	1533	152	125	1999	1658	0.227	0.188	A	A
	SB	4	8,800	3,485	0.47	0.56	1638	1952	305	167	1943	2119	0.221	0.241	A	A
South of Main St.	NB	4	8,800	3,519	0.53	0.44	1865	1548	152	125	2017	1673	0.229	0.190	A	A
	SB	4	8,800	3,519	0.47	0.56	1654	1971	305	167	1959	2138	0.223	0.243	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 4

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	22,100	0.53	0.44	11713	9724	181	281	11894	10005	1.122	0.944	F(0)	E
	SB	4+1	10,600	22,100	0.47	0.56	10387	12376	283	223	10670	12599	1.007	1.189	F(0)	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	17,425	0.53	0.44	9235	7667	181	281	9416	7948	0.888	0.750	D	C
	SB	4+1	10,600	17,425	0.47	0.56	8190	9758	283	223	8473	9981	0.799	0.942	C	E
Olympic Pkwy. to Main St.	NB	4+1	10,600	17,085	0.53	0.44	9055	7517	152	125	9207	7642	0.869	0.721	D	C
	SB	4+0	8,800	17,085	0.47	0.56	8030	9568	305	167	8335	9735	0.947	1.106	E	F(0)
Main St. to Palm Ave.	NB	4+1	10,600	15,385	0.53	0.44	8154	6769	152	125	8306	6894	0.784	0.650	C	C
	SB	4+1	10,600	15,385	0.47	0.56	7231	8616	305	167	7536	8783	0.711	0.829	C	D
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	6,307	0.53	0.44	3343	2775	181	281	3524	3056	0.400	0.347	A	A
	SB	4	8,800	6,307	0.47	0.56	2964	3532	283	223	3247	3755	0.369	0.427	A	B
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	4,590	0.53	0.44	2433	2020	152	125	2585	2145	0.294	0.244	A	A
	SB	4	8,800	4,590	0.47	0.56	2157	2570	305	167	2462	2737	0.280	0.311	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	3,587	0.53	0.44	1901	1578	152	125	2053	1703	0.233	0.194	A	A
	SB	4	8,800	3,587	0.47	0.56	1686	2009	305	167	1991	2176	0.226	0.247	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	2,916	0.53	0.44	1545	1283	152	125	1697	1408	0.193	0.160	A	A
	SB	4	8,800	2,916	0.47	0.56	1370	1633	305	167	1675	1800	0.190	0.205	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	3,409	0.53	0.44	1807	1500	152	125	1959	1625	0.223	0.185	A	A
	SB	4	8,800	3,409	0.47	0.56	1602	1909	305	167	1907	2076	0.217	0.236	A	A
South of Main St.	NB	4	8,800	3,655	0.53	0.44	1937	1608	152	125	2089	1733	0.237	0.197	A	A
	SB	4	8,800	3,655	0.47	0.56	1718	2047	305	167	2023	2214	0.230	0.252	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 5

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	20,485	0.53	0.44	10857	9013	181	281	11038	9294	1.041	0.877	F(0)	D
	SB	4+1	10,600	20,485	0.47	0.56	9628	11472	283	223	9911	11695	0.935	1.103	E	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	16,660	0.53	0.44	8830	7330	181	281	9011	7611	0.850	0.718	D	C
	SB	4+1	10,600	16,660	0.47	0.56	7830	9330	283	223	8113	9553	0.765	0.901	C	D
Olympic Pkwy. to Main St.	NB	4+1	10,600	17,170	0.53	0.44	9100	7555	152	125	9252	7680	0.873	0.725	D	C
	SB	4+0	8,800	17,170	0.47	0.56	8070	9615	305	167	8375	9782	0.952	1.112	E	F(0)
Main St. to Palm Ave.	NB	4+1	10,600	15,555	0.53	0.44	8244	6844	152	125	8396	6969	0.792	0.657	C	C
	SB	4+1	10,600	15,555	0.47	0.56	7311	8711	305	167	7616	8878	0.718	0.838	C	D
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	14,195	0.53	0.44	7523	6246	181	281	7704	6527	0.875	0.742	D	C
	SB	4	8,800	14,195	0.47	0.56	6672	7949	283	223	6955	8172	0.790	0.929	C	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	13,005	0.53	0.44	6893	5722	152	125	7045	5847	0.801	0.664	D	C
	SB	4	8,800	13,005	0.47	0.56	6112	7283	305	167	6417	7450	0.729	0.847	C	D
Olympic Pkwy. to Birch Rd.	NB	4	8,800	11,645	0.53	0.44	6172	5124	152	125	6324	5249	0.719	0.596	C	B
	SB	4	8,800	11,645	0.47	0.56	5473	6521	305	167	5778	6688	0.657	0.760	C	C
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	10,880	0.53	0.44	5766	4787	152	125	5918	4912	0.673	0.558	C	B
	SB	4	8,800	10,880	0.47	0.56	5114	6093	305	167	5419	6260	0.616	0.711	B	C
Rock Mntn. Rd. to Main St.	NB	4	8,800	11,135	0.53	0.44	5902	4899	152	125	6054	5024	0.688	0.571	C	B
	SB	4	8,800	11,135	0.47	0.56	5233	6236	305	167	5538	6403	0.629	0.728	C	C
South of Main St.	NB	4	8,800	11,560	0.53	0.44	6127	5086	152	125	6279	5211	0.714	0.592	C	B
	SB	4	8,800	11,560	0.47	0.56	5433	6474	305	167	5738	6641	0.652	0.755	C	C

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 6

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	17,595	0.53	0.44	9325	7742	181	281	9506	8023	0.897	0.757	D	C
	SB	4+1	10,600	17,595	0.47	0.56	8270	9853	283	223	8553	10076	0.807	0.951	D	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	13,600	0.53	0.44	7208	5984	181	281	7389	6265	0.697	0.591	C	B
	SB	4+1	10,600	13,600	0.47	0.56	6392	7616	283	223	6675	7839	0.630	0.740	C	C
Olympic Pkwy. to Main St.	NB	4+1	10,600	12,750	0.53	0.44	6758	5610	152	125	6910	5735	0.652	0.541	C	B
	SB	4+0	8,800	12,750	0.47	0.56	5993	7140	305	167	6298	7307	0.716	0.830	C	D
Main St. to Palm Ave.	NB	4+1	10,600	11,135	0.53	0.44	5902	4899	152	125	6054	5024	0.571	0.474	B	B
	SB	4+1	10,600	11,135	0.47	0.56	5233	6236	305	167	5538	6403	0.522	0.604	B	B

I-15

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 7

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	18,275	0.53	0.44	9686	8041	181	281	9867	8322	0.931	0.785	E	C
	SB	4+1	10,600	18,275	0.47	0.56	8589	10234	283	223	8872	10457	0.837	0.987	D	E
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	14,790	0.53	0.44	7839	6508	181	281	8020	6789	0.757	0.640	C	C
	SB	4+1	10,600	14,790	0.47	0.56	6951	8282	283	223	7234	8505	0.682	0.802	C	D
Olympic Pkwy. to Main St.	NB	4+1	10,600	13,940	0.53	0.44	7388	6134	152	125	7540	6259	0.711	0.590	C	B
	SB	4+0	8,800	13,940	0.47	0.56	6552	7806	305	167	6857	7973	0.779	0.906	C	D
Main St. to Palm Ave.	NB	4+1	10,600	11,900	0.53	0.44	6307	5236	152	125	6459	5361	0.609	0.506	B	B
	SB	4+1	10,600	11,900	0.47	0.56	5593	6664	305	167	5898	6831	0.556	0.644	B	C
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	4,293	0.53	0.44	2275	1889	181	281	2456	2170	0.279	0.247	A	A
	SB	4	8,800	4,293	0.47	0.56	2017	2404	283	223	2300	2627	0.261	0.299	A	A
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	2,822	0.53	0.44	1496	1242	152	125	1648	1367	0.187	0.155	A	A
	SB	4	8,800	2,822	0.47	0.56	1326	1580	305	167	1631	1747	0.185	0.199	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	1,641	0.53	0.44	869	722	152	125	1021	847	0.116	0.096	A	A
	SB	4	8,800	1,641	0.47	0.56	771	919	305	167	1076	1086	0.122	0.123	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	2,057	0.53	0.44	1090	905	152	125	1242	1030	0.141	0.117	A	A
	SB	4	8,800	2,057	0.47	0.56	967	1152	305	167	1272	1319	0.145	0.150	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	2,057	0.53	0.44	1090	905	152	125	1242	1030	0.141	0.117	A	A
	SB	4	8,800	2,057	0.47	0.56	967	1152	305	167	1272	1319	0.145	0.150	A	A
South of Main St.	NB	4	8,800	2,091	0.53	0.44	1108	920	152	125	1260	1045	0.143	0.119	A	A
	SB	4	8,800	2,091	0.47	0.56	983	1171	305	167	1288	1338	0.146	0.152	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I e 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 8

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	19,380	0.53	0.44	10271	8527	181	281	10452	8808	0.986	0.831	E	D
	SB	4+1	10,600	19,380	0.47	0.56	9109	10853	283	223	9392	11076	0.886	1.045	D	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	16,235	0.53	0.44	8605	7143	181	281	8786	7424	0.829	0.700	D	C
	SB	4+1	10,600	16,235	0.47	0.56	7630	9092	283	223	7913	9315	0.747	0.879	C	D
Olympic Pkwy. to Main St.	NB	4+1	10,600	15,130	0.53	0.44	8019	6657	152	125	8171	6782	0.771	0.640	C	C
	SB	4+0	8,800	15,130	0.47	0.56	7111	8473	305	167	7416	8640	0.843	0.982	D	E
Main St. to Palm Ave.	NB	4+1	10,600	13,260	0.53	0.44	7028	5834	152	125	7180	5959	0.677	0.562	C	B
	SB	4+1	10,600	13,260	0.47	0.56	6232	7426	305	167	6537	7593	0.617	0.716	B	C
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	5,134	0.53	0.44	2721	2259	181	281	2902	2540	0.330	0.289	A	A
	SB	4	8,800	5,134	0.47	0.56	2413	2875	283	223	2696	3098	0.306	0.352	A	A
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	3,587	0.53	0.44	1901	1578	152	125	2053	1703	0.233	0.194	A	A
	SB	4	8,800	3,587	0.47	0.56	1686	2009	305	167	1991	2176	0.226	0.247	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	2,627	0.53	0.44	1392	1156	152	125	1544	1281	0.175	0.146	A	A
	SB	4	8,800	2,627	0.47	0.56	1234	1471	305	167	1539	1638	0.175	0.186	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	2,100	0.53	0.44	1113	924	152	125	1265	1049	0.144	0.119	A	A
	SB	4	8,800	2,100	0.47	0.56	987	1176	305	167	1292	1343	0.147	0.153	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	2,907	0.53	0.44	1541	1279	152	125	1693	1404	0.192	0.160	A	A
	SB	4	8,800	2,907	0.47	0.56	1366	1628	305	167	1671	1795	0.190	0.204	A	A
South of Main St.	NB	4	8,800	2,941	0.53	0.44	1559	1294	152	125	1711	1419	0.194	0.161	A	A
	SB	4	8,800	2,941	0.47	0.56	1382	1647	305	167	1687	1814	0.192	0.206	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN
ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 9

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	21,760	0.53	0.44	11533	9574	181	281	11714	9855	1.105	0.930	F(0)	E
	SB	4+1	10,600	21,760	0.47	0.56	10227	12186	283	223	10510	12409	0.992	1.171	E	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	18,530	0.53	0.44	9821	8153	181	281	10002	8434	0.944	0.796	E	C
	SB	4+1	10,600	18,530	0.47	0.56	8709	10377	283	223	8992	10600	0.848	1.000	D	E
Olympic Pkwy. to Main St.	NB	4+1	10,600	17,680	0.53	0.44	9370	7779	152	125	9522	7904	0.898	0.746	D	C
	SB	4+0	8,800	17,680	0.47	0.56	8310	9901	305	167	8615	10068	0.979	1.144	E	F(0)
Main St. to Palm Ave.	NB	4+1	10,600	15,640	0.53	0.44	8289	6882	152	125	8441	7007	0.796	0.661	C	C
	SB	4+1	10,600	15,640	0.47	0.56	7351	8758	305	167	7656	8925	0.722	0.842	C	D
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	4	8,800	6,052	0.53	0.44	3208	2663	181	281	3389	2944	0.385	0.335	A	A
	SB	4	8,800	6,052	0.47	0.56	2844	3389	283	223	3127	3612	0.355	0.410	A	B
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4	8,800	4,386	0.53	0.44	2325	1930	152	125	2477	2055	0.281	0.234	A	A
	SB	4	8,800	4,386	0.47	0.56	2061	2456	305	167	2366	2623	0.269	0.298	A	A
Olympic Pkwy. to Birch Rd.	NB	4	8,800	3,409	0.53	0.44	1807	1500	152	125	1959	1625	0.223	0.185	A	A
	SB	4	8,800	3,409	0.47	0.56	1602	1909	305	167	1907	2076	0.217	0.236	A	A
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	3,290	0.53	0.44	1743	1447	152	125	1895	1572	0.215	0.179	A	A
	SB	4	8,800	3,290	0.47	0.56	1546	1842	305	167	1851	2009	0.210	0.228	A	A
Rock Mntn. Rd. to Main St.	NB	4	8,800	4,531	0.53	0.44	2401	1993	152	125	2553	2118	0.290	0.241	A	A
	SB	4	8,800	4,531	0.47	0.56	2129	2537	305	167	2434	2704	0.277	0.307	A	A
South of Main St.	NB	4	8,800	4,531	0.53	0.44	2401	1993	152	125	2553	2118	0.290	0.241	A	A
	SB	4	8,800	4,531	0.47	0.56	2129	2537	305	167	2434	2704	0.277	0.307	A	A

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LINSCOTT LAW & GREENSPAN ENGINEERS

Table 20 (Continued)

FREEWAY MAINLINE OPERATIONS
SCENARIO 10

Freeway Segment	Direction	# of Lanes	Hourly Capacity [1]	Pk Hr (2-Dir)[2]	% D[3] AM	% D[3] PM	Pk Hr Vol (1-Dir) AM	Pk Hr Vol (1-Dir) PM	Cumulative Vol AM	Cumulative Vol PM	Pk Vol (E+C) AM	Pk Vol (E+C) PM	V/C (E+C) AM	V/C (E+C) PM	LOS (E+C) AM	LOS (E+C) PM
I-805																
East "H" St. to Telegraph Cnyn. Rd.	NB	4+1	10,600	20,655	0.53	0.44	10947	9088	181	281	11128	9369	1.050	0.884	F(0)	D
	SB	4+1	10,600	20,655	0.47	0.56	9708	11567	283	223	9991	11790	0.943	1.112	E	F(0)
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	4+1	10,600	18,020	0.53	0.44	9551	7929	181	281	9732	8210	0.918	0.775	D	C
	SB	4+1	10,600	18,020	0.47	0.56	8469	10091	283	223	8752	10314	0.826	0.973	D	E
Olympic Pkwy. to Main St.	N	4+1	10,600	18,190	0.53	0.44	9641	8004	152	125	9793	8129	0.924	0.767	E	C
	SB	4+0	8,800	18,190	0.47	0.56	8549	10186	305	167	8854	10353	1.006	1.177	F(0)	F(0)
Main St. to Palm Ave.	N	4+1	10,600	16,405	0.53	0.44	8695	7218	152	125	8847	7343	0.835	0.693	D	C
	SB	4+1	10,600	16,405	0.47	0.56	7710	9187	305	167	8015	9354	0.756	0.882	C	D
SR-125																
East "H" St. to Telegraph Cnyn. Rd.	NB	5	10,600	14,195	0.53	0.44	7523	6246	181	281	7704	6527	0.727	0.616	C	B
	SB	5	10,600	14,195	0.47	0.56	6672	7949	283	223	6955	8172	0.656	0.771	C	C
Telegraph Cnyn. Rd. to Olympic Pkwy.	NB	5	10,600	13,090	0.53	0.44	6938	5760	152	125	7090	5885	0.669	0.555	C	B
	SB	5	10,600	13,090	0.47	0.56	6152	7330	305	167	6457	7497	0.609	0.707	B	C
Olympic Pkwy. to Birch Rd.	NB	4	8,800	11,815	0.53	0.44	6262	5199	152	125	6414	5324	0.729	0.605	C	B
	SB	4	8,800	11,815	0.47	0.56	5553	6616	305	167	5858	6783	0.666	0.771	C	C
Birch Rd. to Rock Mntn. Rd.	NB	4	8,800	11,815	0.53	0.44	6262	5199	152	125	6414	5324	0.729	0.605	C	B
	SB	4	8,800	11,815	0.47	0.56	5553	6616	305	167	5858	6783	0.666	0.771	C	C
Rock Mntn. Rd. to Main St.	NB	4	8,800	13,005	0.53	0.44	6893	5722	152	125	7045	5847	0.801	0.664	D	C
	SB	4	8,800	13,005	0.47	0.56	6112	7283	305	167	6417	7450	0.729	0.847	C	D
South of Main St.	NB	4	8,800	13,005	0.53	0.44	6893	5722	152	125	7045	5847	0.801	0.664	D	C
	SB	4	8,800	13,005	0.47	0.56	6112	7283	305	167	6417	7450	0.729	0.847	C	D

Notes:
1. Capacity calculated at 2200 Pk hr volume per mainline lane and 1,800 per aux lane (I.e. 4+1 = 4 Mainline + 1 Aux Lane = hourly capacity of 10,600)
2. Peak Hour 2 Directional Volumes from CALTRANS - Year 2002 volumes - See Appendix
3. Direction Split (D) from CALTRANS - See Appendix
4. V/C = Peak Hour Volume/Peak Hour Capacity with LOS by ratio shown to the right =>

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

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Table 21

ACCESS INTERSECTION OPERATIONS AT BUILDOUT

INTERSECTION	PEAK HOUR	BUILDOUT	
		DELAY	LOS
44. Magdelena Ave./Birch Rd.	AM	33.4	C
	PM	29.5	C
45. Magdelena Ave./Rock Mountain Rd.	AM	27.6	C
	PM	26.3	C
46. Street "A"/La Media Rd.	AM	24.0	C
	PM	22.1	C

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Table 22

PROJECT DRIVEWAY INTERSECTION TURN LANE STORAGE

INTERSECTION	SOUTHBOUND		WESTBOUND		NORTHBOUND		EASTBOUND	
	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
44. Magdelena Ave./Birch Rd.	100	100	325	100	125 [1]	150	225	175
45. Magdelena Ave./Rock Mountain Rd.	150 [1]	[2]	275	175	150	175	175	150
46. Street "C"/La Media Rd.	100	100	100	[2]	125	100	100	100

Notes:
1. Dual left-turn lanes. Storage indicated is per lane.
2. Shared through/right lane.

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TABLE 23

SIGNIFICANCE OF IMPACTS AT INTERSECTIONS

IMPACTED INTERSECTIONS	TRAFFIC ENTERING INTERSECTION		PROJECT TRAFFIC XX% OF TOTAL TRAFFIC ENTERING INTERSECTION	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED (AT BUILDOUT)	
	TOTAL	PROJECT			DELAY	LOS
SCENARIO 1 - YEAR 2005 WITHOUT SR 125						
1. Telegraph Canyon Rd./I-805 SB Ramps	4,210	35	1%	Cumulative	27.1	C
SCENARIO 2 - YEAR 2010						
None	NA	NA	NA	None	NA	NA
SCENARIO 3 - YEAR 2015						
None	NA	NA	NA	None	NA	NA
SCENARIO 4 - YEAR 2030						
None	NA	NA	NA	None	NA	NA
SCENARIO 5 - BUILDOUT						
None	NA	NA	NA	None	NA	NA
SCENARIO 6 - YEAR 2005 WITHOUT SR 125						
1. Telegraph Canyon Rd./I-805 SB Ramps	4,380	35	1%	Cumulative	39.4	D
SCENARIO 7 - YEAR 2010						
None	NA	NA	NA	None	NA	NA
SCENARIO 8 - YEAR 2015						
None	NA	NA	NA	None	NA	NA
SCENARIO 9 - YEAR 2030						
35. Rock Mountain Road/La Media Road (LOS E/LOS F)	4,950	456	9%	Direct	51.3	D
SCENARIO 10 - BUILDOUT						
35. Rock Mountain Road/La Media Road (LOS E/LOS F)	4,900	456	9%	Direct	51.3	D

Note:

NA - Not applicable since there is no significant impact.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 1 - YEAR 2005 WITHOUT SR 125							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS F)	No	0.2%	No	Cumulative	-	43,000	A
Oleander Ave. to Medical Center Dr. (LOS D)	No	0.2%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	No	0.5%	Yes	Not Significant	-	-	1
Paseo Ranchero/Heritage Rd. to Otay Lakes Rd. (LOS D)	No	0.0%	Yes	Not Significant	-	-	1
OTAY LAKES ROAD							
North of Telegraph Canyon Rd. (LOS D)	No	1.6%	Yes	Not Significant	-	-	1
La Media Rd. to SR 125 (LOS E)	No	0.2%	Yes	Not Significant	-	-	1
SCENARIO 2 - YEAR 2010							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.6%	Yes	Not Significant	-	-	1
Oleander Ave. to Medical Center Dr. (LOS D)	No	0.6%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	No	1.3%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
I-805 to Medical Center Dr. (LOS D)	Yes	6.1%	Yes	Not Significant	-	-	1
SR 125 to Eastlake Pkwy. (LOS D)	No	0.7%	Yes	Not Significant	-	-	1

Note:
1 - Not applicable since there is no significant impact.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 3 - YEAR 2015							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.7%	Yes	Not Significant	-	-	1
Oleander Ave. to Medical Center Dr. (LOS E)	No	1.1%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	Yes	1.5%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
I-805 to Medical Center Dr. (LOS E)	Yes	4.9%	Yes	Not Significant	-	-	1
Medical Center Dr. to Heritage Rd. (LOS D)	Yes	5.9%	Yes	Not Significant	-	-	1
SR 125 to Eastlake Pkwy. (LOS D)	No	0.8%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
La Media Rd. to SR 125 (LOS D)	Yes	6.2%	Yes	Not Significant	-	-	1
SR 125 to Eastlake Pkwy. (LOS F)	Yes	2.1%	Yes	Cumulative	40,000 [3]	39,800	C

Note:

1 - Not applicable since there is no significant impact.

2 - Mitigated as a Class I Collector Street.

3 - Mitigated as a 6-lane Major Street. This will require a general Plan Amendment.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 4 - YEAR 2030							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.8%	Yes	Not Significant	-	-	1
Oleander Ave. to Medical Center Dr. (LOS D)	No	0.8%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	No	0.8%	Yes	Not Significant	-	-	1
OTAY LAKES ROAD							
Eastlake Pkwy. to Lane Ave. LOS D)	Yes	0.4%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY	No						
I-805 to Medical Center Dr. (LOS D)	Yes	1.5%	Yes	Not Significant	-	-	1
Heritage Rd. to La Media Rd. (LOS D)	Yes	3.8%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
SR 125 to Eastlake Pkwy. (LOS F)	Yes	2.1%	Yes	Cumulative	46,700 [4]	40,500	B

Notes:

1 - Not applicable since there is no significant impact.

2 - Mitigated as a Class I Collector Street.

4 - Mitigated as a 7-Lane Prime Arterial (see text for explanation of capacity). This will require a general Plan Amendment.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 5 - YEAR 2030							
OTAY LAKES ROAD							
SR 125 to Eastlake Pkwy. (LOS E)	No	0.3%	Yes	Not Significant	-	-	1
Eastlake Pkwy. to Lane Ave. (LOS E)	No	0.4%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
SR 125 to Eastlake Pkwy. (LOS D)	No	0.4%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
SR 125 to Eastlake Pkwy. (LOS F)	Yes	1.8%	Yes	Cumulative	50,000 [5]	47,100	C
SCENARIO 6 - YEAR 2005 WITHOUT SR 125							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS F)	No	0.2%	Yes	Cumulative	-	49,400	B
Oleander Ave. to Medical Center Dr. (LOS D)	No	0.2%	Yes	Not Significant	-	-	1
Paseo Ranchero to Otay Lakes Rd. (LOS D)	No	0.2%	Yes	Not Significant	-	-	1
OTAY LAKES ROAD							
North of Telegraph Canyon Rd. (LOS D)	No	1.6%	Yes	Not Significant	-	-	1

Notes:

1 - Not applicable since there is no significant impact.

2 - Mitigated as a Class I Collector Street.

5 - Mitigated as a 6-lane Prime Arterial. This will require a general Plan Amendment.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 7 - YEAR 2010							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.6%	Yes	Not Significant	-	-	1
Oleander Ave. to Medical Center Dr. (LOS E)	No	0.6%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	No	1.3%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
I-805 to Medical Center Dr. (LOS E)	Yes	5.5%	Yes	Not Significant	-	-	1
Medical Center Dr. to Heritage Rd. (LOS D)	Yes	6.3%	Yes	Not Significant	-	-	1
SR 125 to Eastlake Pkwy. (LOS D)	No	0.7%	Yes	Not Significant	-	-	1
SCENARIO 8 - YEAR 2015							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.7%	Yes	Not Significant	-	-	1
Medical Center Dr. to Paseo Ranchero/Heritage Rd. (LOS D)	Yes	1.5%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
I-805 to Medical Center Dr. (LOS D)	Yes	5.0%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
Main St. to La Media Rd. (LOS F)	Yes	6.0%	Yes	Cumulative	30,000 [7]	28,200	C
La Media Rd. to SR 125 (LOS F)	Yes	4.0%	Yes	Cumulative	40,000 [3]	37,700	C
SR 125 to Eastlake Pkwy. (LOS F)	No	1.8%	Yes	Cumulative	50,000 [5]	48,500	C

Note:

1 - Not applicable since there is no significant impact.
3 - Mitigated as a 6-lane Major Street. This will require a general Plan Amendment.
5 - Mitigated as a 6-lane Prime Arterial. This will require a general Plan Amendment.
6 - Mitigated as a Class II Collector Street.
7 - Mitigated as a 4-lane Major Street. This will require a general Plan Amendment.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 9 - YEAR 2030							
TELEGRAPH CANYON ROAD							
I-805 to Oleander Ave. (LOS E)	No	0.7%	Yes	Not Significant	-	-	1
Oleander Ave. to Medical Center Dr. (LOS E)	No	0.8%	Yes	Not Significant	-	-	1
OTAY LAKES ROAD							
Eastlake Pkwy. to Lane Ave. (LOS D)	No	0.4%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
I-805 to Medical Center Dr. (LOS D)	Yes	1.5%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
Main St. to La Media Rd. (LOS F)	Yes	5.3%	Yes	Cumulative	40,000 [3]	36,500	C
La Media Rd. to SR 125 (LOS F)	No	6.5%	No	Direct	50,000 [5]	46,200	C
SR 125 to Eastlake Pkwy. (LOS F)	No	1.4%	No	Cumulative	66,700 [4]	60,600	C
OLEANDER AVENUE							
Telegraph Canyon Rd. to Palomar St. (LOS D)	No	1.7%	Yes	Not Significant	-	-	1

Note:

1 - Not applicable since there is no significant impact.

3 - Mitigated as a 6-lane Major Street. This will require a general Plan Amendment.

4 - Mitigated as a 8-Lane Prime Arterial (see text for explanation of capacity). This will require a general Plan Amendment.

5 - Mitigated as a 6-lane Prime Arterial. This will require a general Plan Amendment.

6 - Mitigated as a Class II Collector.

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TABLE 24

SIGNIFICANCE OF IMPACTS AT SEGMENTS

IMPACTED SEGMENTS	# OF PROJECT ADT > 800	PROJECT RESPONSIBLE FOR XX %	INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?	IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT	MITIGATED LOS		
					CAPACITY	VOLUME	LOS
SCENARIO 10 - BUILDOUT							
OTAY LAKES ROAD							
SR 125 to Eastlake Pkwy. (LOS D)	No	0.3%	Yes	Not Significant	-	-	1
Eastlake Pkwy. to Lane Ave. (LOS E)	No	0.4%	Yes	Not Significant	-	-	1
OLYMPIC PARKWAY							
SR 125 to Eastlake Pkwy. (LOS D)	No	0.4%	Yes	Not Significant	-	-	1
ROCK MOUNTAIN ROAD							
Main St. to La Media Rd. (LOS F)	Yes	3.2%	No	Direct	40,000 [3]	33,600	A
La Media Rd. to SR 125 (LOS F)	No	8.0%	No	Direct	66,700 [4]	50,600	B
SR 125 to Eastlake Pkwy. (LOS F)	No	1.3%	Yes	Cumulative	66,700 [4]	66,200	C

Note:

1 - Not applicable since there is no significant impact.

3 - Mitigated as a 6-lane Major Street. This will require a general Plan Amendment.

4 - Mitigated as a 8-Lane Prime Arterial (see text for explanation of capacity). This will require a general Plan Amendment.

5 - Mitigated as a 6-lane Prime Arterial. This will require a general Plan Amendment.

6 - Mitigated as a Class II Collector.

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Table 25

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
A. DIRECT IMPACTS		
SCENARIO 1 - YEAR 2005 WITHOUT SR 125		
None	None	None
SCENARIO 2 - YEAR 2010		
None	None	None
SCENARIO 3 - YEAR 2015		
None	None	None
SCENARIO 4 - YEAR 2030		
None	None	None
SCENARIO 5 - BUILDOUT		
None	None	None
SCENARIO 6 - YEAR 2005 WITHOUT SR 125		
None	None	None
SCENARIO 7 - YEAR 2010		
None	None	None
SCENARIO 8 - YEAR 2015		
None	None	None
SCENARIO 9 - YEAR 2030		
35. Rock Mountain Rd./La Media Rd. Rock Mountain Rd. from La Media Rd. to SR 125	Widen Rock Mountain Road to a 6-Ln Major Road with the appropriate intersection geometry per City of Chula Vista Standards. This will require a General Plan Amendment. Widen Rock Mountain Road to a 6-Ln Prime Arterial with the appropriate intersection geometry per City of Chula Vista Standards. Prior to 2030, the applicant shall pay a fair share toward the construction of the six-lane segment of Rock Mountain Road between La Media and SR 125, or shall construct the road segment. This will require a General Plan Amendment.	LOS D (AM & PM) LOS C

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Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
A. DIRECT IMPACTS (CONTINUED)		
SCENARIO 10 – BUILDOUT		
35. Rock Mountain Rd./La Media Rd.	Widen Rock Mountain Road to a 6-Ln Major Road with the appropriate intersection geometry per City of Chula Vista Standards. This will require a General Plan Amendment.	LOS D (AM & PM)
Rock Mountain Rd. from La Media Rd. to SR 125	Widen Rock Mountain Road to a 6-Ln Prime Arterial with the appropriate intersection geometry per City of Chula Vista Standards. Prior to 2030, the applicant shall pay a fair share toward the construction of the six-lane segment of Rock Mountain Road between La Media and SR 125, or shall construct the road segment. This will require a General Plan Amendment.	LOS C
B. CUMULATIVE IMPACTS		
SCENARIO 1 - YEAR 2005 WITHOUT SR 125		
1. Telegraph Cnyn. Rd./I-805 SB Ramps	No units within Village 7 shall be constructed which would result in the total number of units within the eastern territories (starting on January 1, 2003), exceeding 8,990 units, prior to the construction of SR 125 between SR 54 and the International border.	NA
Telegraph Cnyn. Rd. from I-805 to Oleander Ave.	No units within Village 7 shall be constructed which would result in the total number of units within the eastern territories (starting on January 1, 2003), exceeding 8,990 units, prior to the construction of SR 125 between SR 54 and the International border.	NA
SCENARIO 2 - YEAR 2010		
None	None	None
SCENARIO 3 - YEAR 2015		
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 7-Ln Major Street standards. This will require a General Plan Amendment.	LOS C
SCENARIO 4 - YEAR 2030		
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 7-Ln Major Street standards. This will require a General Plan Amendment.	LOS B
SCENARIO 5 – BUILDOUT		
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 7-Ln Major Street standards. This will require a General Plan Amendment.	LOS C

Note:
NA - Not applicable since the impact is not mitigated prior to SR 125.

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Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
B. CUMULATIVE IMPACTS (CONTINUED)		
SCENARIO 6 – YEAR 2005 WITHOUT SR 125		
1. Telegraph Cnyn. Rd./I-805 SB Ramps	No units within Village 7 shall be constructed which would result in the total number of units within the eastern territories (starting on January 1, 2003), exceeding 8,990 units, prior to the construction of SR 125 between SR 54 and the International border.	NA
Telegraph Cnyn. Rd. from I-805 to Oleander Ave.	No units within Village 7 shall be constructed which would result in the total number of units within the eastern territories (starting on January 1, 2003), exceeding 8,990 units, prior to the construction of SR 125 between SR 54 and the International border.	NA
SCENARIO 7 - YEAR 2010		
None	None	None
SCENARIO 8 - YEAR 2015		
Rock Mountain Road from Main St. to La Media Rd.	Contribute fairshare towards widening of Rock Mountain Road to a 4-Ln Major Street standards. This will require a General Plan Amendment.	LOS C
Rock Mountain Road from La Media Rd. to SR 125	Contribute fairshare towards widening of Rock Mountain Road to a 6-Ln Major Street standards. This will require a General Plan Amendment.	LOS C
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 6-Ln Prime Arterial standards. This will require a General Plan Amendment.	LOS C
SCENARIO 9 - YEAR 2030		
35. Rock Mountain Rd./La Media Rd.	Contribute fairshare towards widening of Rock Mountain Road to a 6-Ln Prime Arterial standards with the appropriate intersection geometry per City of Chula Vista Standards. This will require a General Plan Amendment.	LOS D during the AM and PM peak hours
Rock Mountain Road from Main St. to La Media Rd.	Contribute fairshare towards widening of Rock Mountain Road to a 6-Ln Major Street standards. This will require a General Plan Amendment.	LOS C
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 8-Ln Prime Arterial standards. This will require a General Plan Amendment.	LOS C

Note:

NA - Not applicable since the impact is not mitigated prior to SR 125.

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Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
B. CUMULATIVE IMPACTS (CONTINUED)		
SCENARIO 10 – BUILDOUT		
Rock Mountain Road from SR 125 to Eastlake Pkwy.	Contribute fairshare towards widening of Rock Mountain Road to a 8-Ln Prime Arterial standards. This will require a General Plan Amendment	LOS C
C. FREEWAYS		
SCENARIO 1 - YEAR 2005 WITHOUT SR 125		
None	None	None
SCENARIO 2 - YEAR 2010		
None	None	None
SCENARIO 3 - YEAR 2015		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA
SCENARIO 4 - YEAR 2030		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Telegraph Cnyn. Rd. to Olympic Pkwy.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA

Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
C. FREEWAYS (CONTINUED)		
SCENARIO 5 - YEAR 2030		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Telegraph Cnyn. Rd. to Olympic Pkwy.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA
SCENARIO 6 - YEAR 2005 WITHOUT SR 125		
None	None	None
SCENARIO 7 - YEAR 2010		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SCENARIO 8 - YEAR 2015		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA

Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
C. FREEWAYS (CONTINUED)		
SCENARIO 9 - YEAR 2030		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
NB I-805 from Olympic Pkwy. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Telegraph Cnyn. Rd. to Olympic Pkwy.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA
SCENARIO 10 - BUILDOUT		
NB I-805 from Telegraph Cnyn. Rd. to East "H" St.	Additional lanes would be required to maintain acceptable LOS. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.	NA
SB I-805 from East "H" St. to Telegraph Cnyn. Rd.	Same as above.	NA
SB I-805 from Telegraph Cnyn. Rd. to Olympic Pkwy.	Same as above.	NA
NB I-805 from Main St. to Olympic Pkwy.	Same as above.	NA
SB I-805 from Olympic Pkwy. to Main St.	Same as above.	NA

Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES	BUILDOUT LOS WITH MITIGATION
D. PROJECT ACCESS		
44. Magdelena Ave./Birch Rd.	Phasing of the following improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer, with intersection lane geometry per **Figure 38**. Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure a fully actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaires at the Magdelena Avenue/Birch Road intersection. The design of the signal shall be to the satisfaction of the City Engineer. The applicant shall provide turn lane storage lengths as listed in Table 22.	LOS C or better
45. Magdelena Ave./Rock Mountain Rd.	Phasing of the following improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer, with intersection lane geometry per **Figure 38**. Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure a fully actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaires at the Magdelena Avenue/ Rock Mountain Road intersection. The design of the signal shall be to the satisfaction of the City Engineer. The applicant shall provide turn lane storage lengths as listed in Table 22.	LOS C or better
46. Street "C"/La Media Rd.	Phasing of the following improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer, with intersection lane geometry per **Figure 38**. Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure a fully actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaires at the Street "C"/La Media Road intersection. The design of the signal shall be to the satisfaction of the City Engineer. The applicant shall provide turn lane storage lengths as listed in Table 22.	LOS C or better

Table 25 (Continued)

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

SIGNIFICANT IMPACTS	MITIGATION MEASURES
E. INTERNAL CIRCULATION (INTERSECTION TRAFFIC CONTROL)	
Magdalena Avenue/Street "J"	Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure All-way STOP control at the Magdalena Avenue/Street "J" intersection.
Magdalena Avenue/Street "D"	Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure All-way STOP control at the Magdalena Avenue/Street "D" intersection.
Magdalena Avenue/MU-1 Access	Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure All-way STOP control at the Magdalena Avenue/MU-1 intersection.
Magdalena Avenue/Street "E"	Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure All-way STOP control at the Magdalena Avenue/Street "E" intersection.
Magdalena Avenue/Street "C"	Prior to issuance of building permits triggering the construction of the intersection improvements, the applicant shall enter into an agreement to design, construct, and secure a ful actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaires at the Magdelena Avenue/Street "C" intersection. The design of the signal shall be to the satisfaction of the City Engineer.