TRAFFIC TECHNICAL REPORT

for

STATE ROUTE 11 AND THE OTAY MESA EAST PORT OF ENTRY

SAN DIEGO COUNTY, CALIFORNIA
DISTRICT 11–SD –ROUTE 11
PM 0.0/2.8 EA056310
DISTRICT 11–SD –ROUTE 905
PM R8.4/10.1

TIER II ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT

November 2010

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TIER II TRAFFIC TECHNICAL REPORT

STATE ROUTE 11/
OTAY MESA EAST LAND PORT OF ENTRY

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EXECUTIVE SUMMARY

This report provides a traffic analysis of the proposed State Route 11/Otay Mesa East Land Port of Entry project located in the southern portion of San Diego County and the City of San Diego. State Route 11 is proposed as a new four to six-lane freeway/tollway that will connect the future SR-905/SR-125 interchange with the proposed Otay Mesa East Land Port of Entry (LPOE). Figure S-1 shows the general location of the project.

The traffic analysis was conducted for the No Build Alternative and for the following three project alternatives:

- Two Interchange Alternative: Full interchange at Enrico Fermi Drive and half interchange at Siempre Viva Road (access to and from the west only)
- One Interchange Alternative: Interchange at Alta Road
- No Interchange Alternative: No local access interchanges between the SR-905/SR-125/SR-11 interchange and the international border

The three project alternatives assumed implementation of SR-11 as a tollway and that the following connector ramps would be provided at the SR-905/SR-125/SR-11 interchange, in addition to mainline movements along SR-905: southbound SR-125 to westbound SR-905, eastbound SR-905 to northbound SR-125, and westbound SR-11 to northbound SR-125.

The project design concepts described in the alternatives listed above were analyzed in combination with the following design variations:

- No Toll Design Variation: Implementation of SR-11 as a freeway
- SR-125 Connector Design Variation: Addition of a connector ramp from southbound SR-125 to eastbound SR-11 at the SR-905/SR-125/SR-11 interchange
- Full Interchange Design Variation: Construction of a full interchange with connector ramps for all movements at the SR-905/SR-125/SR-11 interchange

In addition, a design variation of the Two Interchange Alternative was analyzed that assumes a full interchange at SR-11/Siempre Viva Road. This design variation was analyzed with the basic Two Interchange Alternative (i.e. with Toll, without a connector ramp from southbound SR-125 to eastbound SR-11 and without a full interchange at SR-905/SR-125/SR-11). The combination of the basic project alternatives plus the design variations led to analysis of thirteen different scenarios of future conditions, in addition to the No Build Alternative.

In the No Build condition, it was assumed that neither SR-11 nor the Otay Mesa East LPOE would be built. In addition, it was assumed that a roadway connection would be built between the SR-905/SR-125 and Enrico Fermi Drive, since this roadway connection was cleared by a previous environmental process.

The traffic analysis was conducted for Existing (2009) conditions, Opening Day (2015) conditions, and Horizon Year conditions (2035). The existing conditions analysis was based on traffic counts conducted by VRPA Technologies in early 2009. The traffic analysis of 2015 and 2035 conditions was based on traffic forecasts provided by the SANDAG regional transportation model. The 2008 Regional Transportation Plan (RTP) version of the model was used with the Revenue Constrained financing plan. The model was updated to incorporate recent land use changes in the Otay Mesa area provided by San Diego County and the City of San Diego.

Details of the traffic analysis are provided in the body of the report. Following are key conclusions of the traffic analysis:

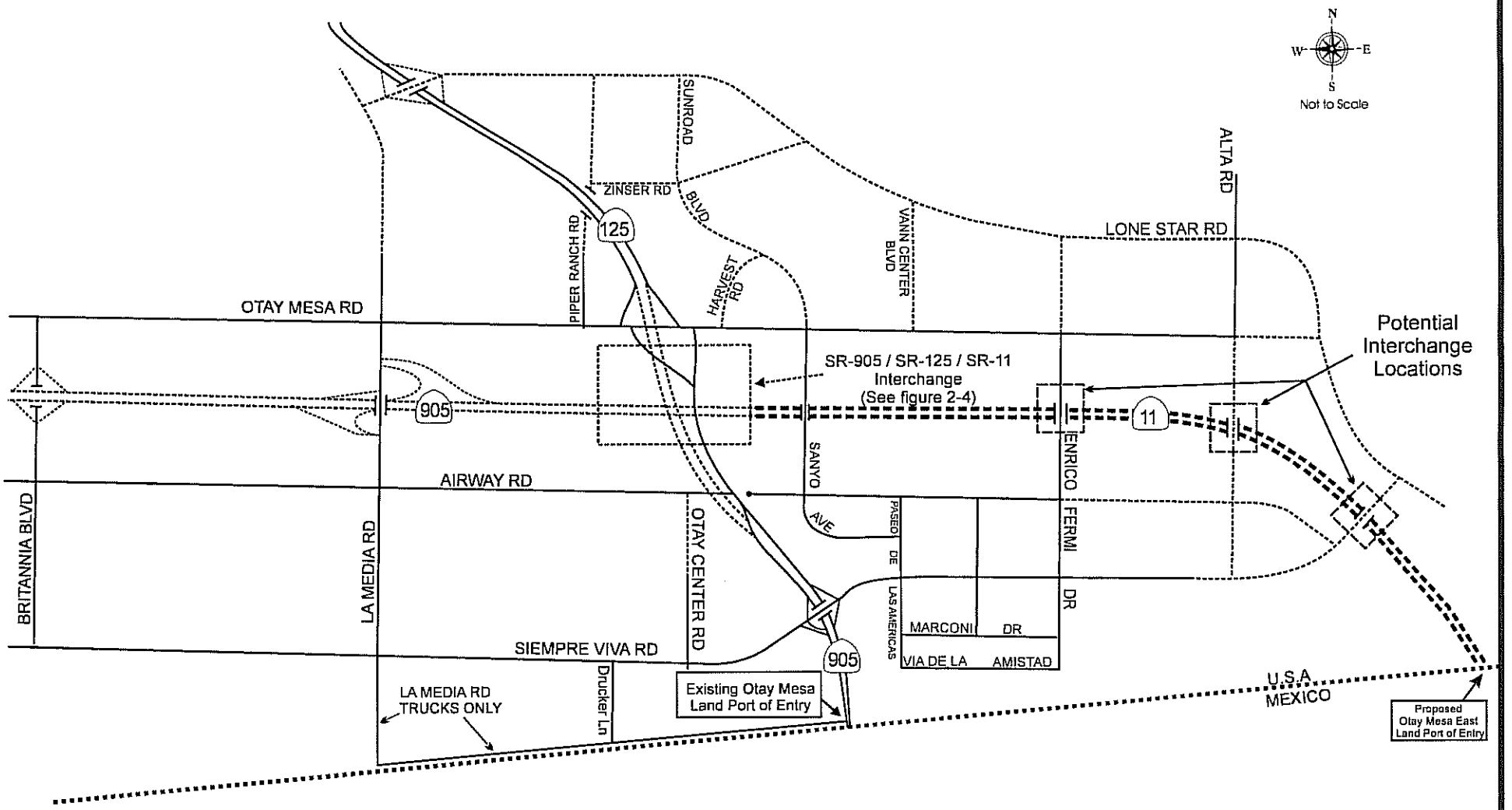
- Daily traffic forecasts for the year 2035 at the proposed Otay Mesa East LPOE are expected to be 45,600 with SR-11 as a tollway and 52,900 with SR-11 as a freeway.

- The construction of SR-11 and the Otay Mesa East LPOE are expected to substantially reduce traffic levels at the existing San Ysidro and Otay Mesa LPOE's, as compared to the No Build condition. Table S-1 summarizes traffic forecasts for border-crossing traffic for various scenarios.

- Daily traffic forecasts on SR-11 are expected to range from approximately 45,000 to 80,000 vehicles per day in 2035, depending design concept, tolling strategy, and location along SR-11. In most cases, a four-lane facility would be adequate to handle this level of traffic. There are a few alternatives where a six-lane facility and/or auxiliary lanes would be desirable.

- The SR-11/ Otay Mesa East LPOE project would generally tend to reduce traffic or have no effect on other roadways in the study area. One exception is the segment of SR-905 between I-805 and the SR-905/SR-125/SR-11 interchange. Traffic congestion is expected in 2035 along this freeway segment in the No Build condition and the construction of the project would tend to slightly increase the level of traffic congestion, depending on the alternative and location along SR-905.

- The SR-11/ Otay Mesa East LPOE project would generally tend to reduce traffic or have no effect on intersection operations in the study area. Exceptions occur at the Otay Mesa Road/La Media Road intersection (in all alternatives), at the intersection of Otay Mesa Road/Enrico Fermi Road (for alternatives in which there is an SR-11/Enrico Fermi interchange), and in the SR-905/Siempre Viva Road interchange area (for alternatives with no SR-11 interchanges).



Proposed Project: SR-11/Otay Mesa East Land Port of Entry

Legend

- Existing Freeway
- Existing Roadway or Ramp
- Proposed Project
- Proposed Freeway/Tollway
- Proposed Roadway or Ramp

Figure S-1

Table S-1

SUMMARY OF TWO-WAY AVERAGE DAILY TRAFFIC FORECASTS AT INTERNATIONAL BORDER CROSSINGS

Analysis Year	SR-11 Scenario	San Ysidro			Otay Mesa			Otay Mesa East		
		Autos	Trucks	Total	Autos	Trucks	Total	Autos	Trucks	Total
2009	Existing	114,200	0	114,200	33,500	5,300	38,800	0	0	0
2015	No Build	130,700	0	130,700	41,700	7,700	49,400	0	0	0
2015	Build / Toll	112,100	0	112,100	37,200	5,000	42,200	23,100	2,700	25,800
2015	Build / No Toll	109,300	0	109,300	36,400	4,600	41,000	26,700	3,100	29,800
2035	No Build	186,200	0	186,200	73,400	12,000	85,400	0	0	0
2035	Build / Toll	151,600	0	151,600	67,300	7,200	74,400	40,800	4,800	45,600
2035	Build / No Toll	145,800	0	145,800	66,600	6,400	73,000	47,200	5,600	52,800

1.0 INTRODUCTION

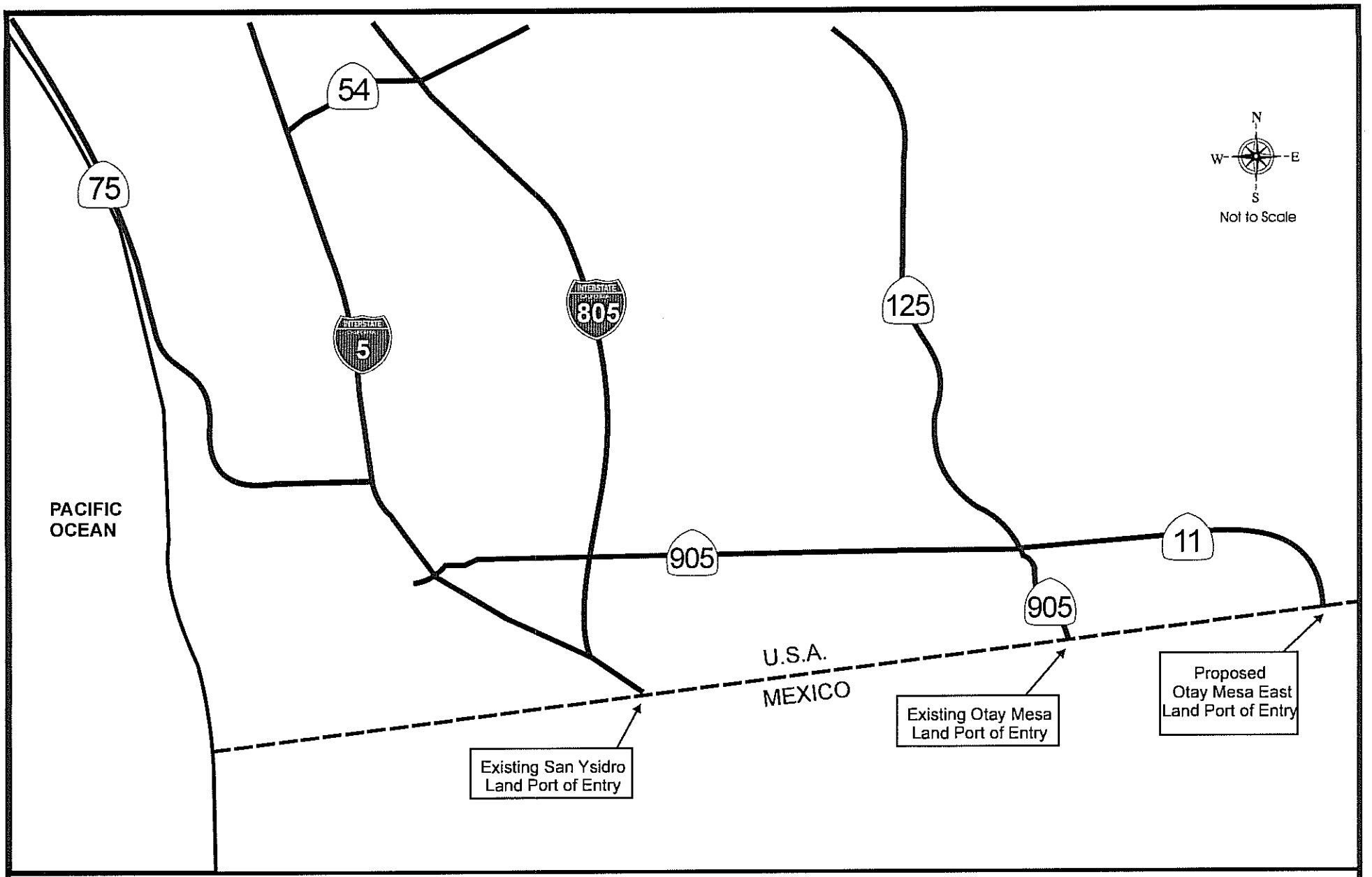
This report provides a traffic analysis of the proposed State Route 11/Otay Mesa East Land Port of Entry project located in the southern portion of San Diego County and the City of San Diego. State Route 11 is proposed as a new four to six-lane freeway/tollway that will connect the future SR-905/SR-125 interchange with the proposed Otay Mesa East Land Port of Entry (LPOE). Figures 1-1 and 1-2 show the general location of the project.

The Tier II traffic analysis is intended to provide a project-level traffic analysis. A previous traffic analysis was conducted for the project at the program level and included traffic analysis only based on Average Daily Traffic conditions (Otay Mesa East Port of Entry Feasibility Study Traffic Technical Report, VRPA Technologies/Caltrans – District 11, March 31, 2008).

The purpose of the Tier II traffic analysis is to provide the following:

- A description of existing and future traffic conditions with and without the project based on Average Daily Traffic, AM peak hour, and PM peak hour traffic conditions.
- Traffic data needed for the project's Tier II Draft EIR/EIS.
- Traffic analysis for the Project Report, Design Exception Fact Sheets, and other project documents.

The remainder of this report provides a description of the study methodology, Existing (2009) conditions, Opening Year (2015) conditions, Horizon Year (2035) conditions, pedestrian forecasts, facilities for pedestrians, bicycles, and transit, future development of the Otay Mesa area, and a summary of results and conclusions. In addition, appendices have been included that contain additional detail on various aspects of the analysis.



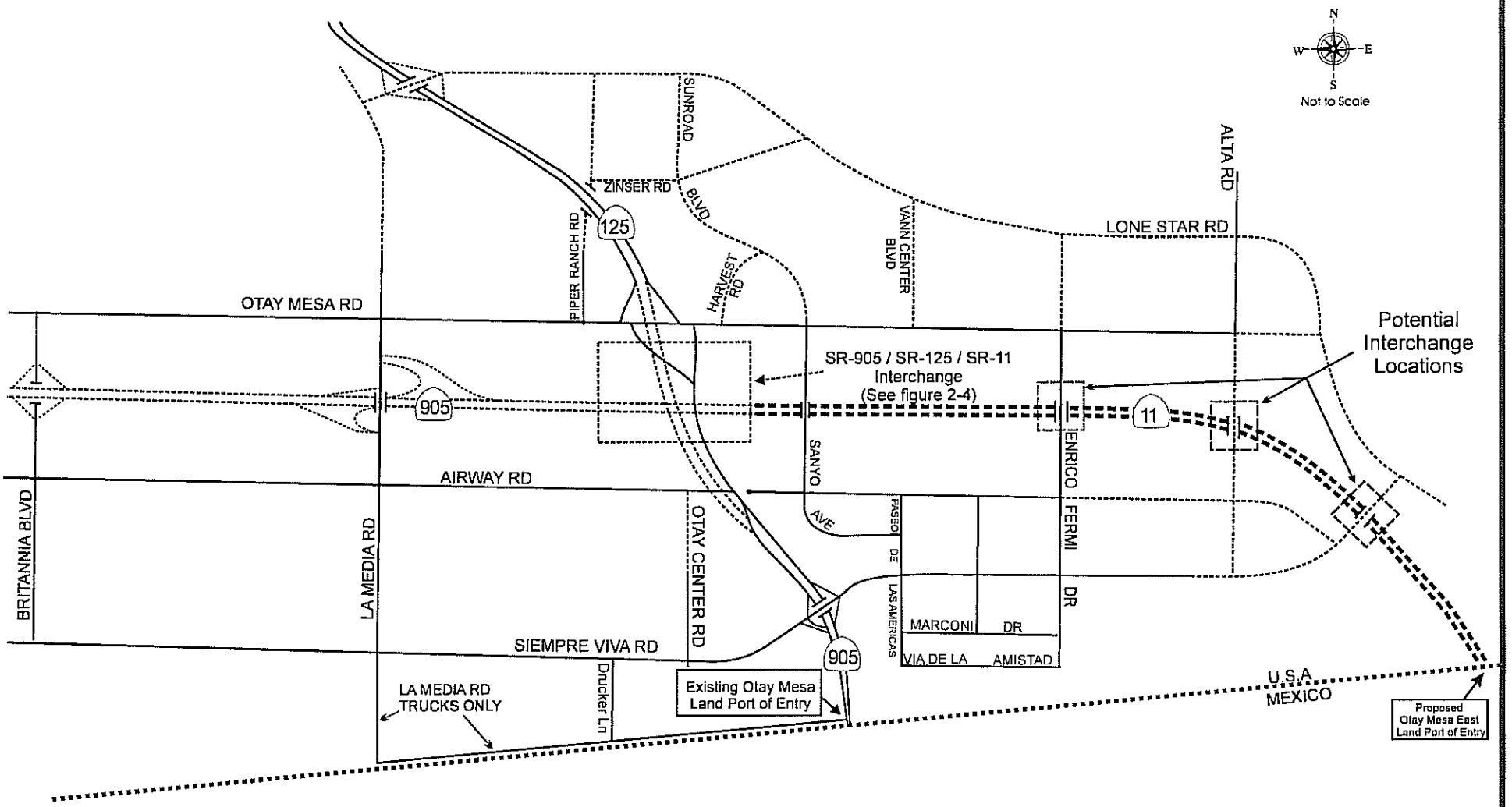
Project Location - San Diego Region

Legend

Existing or Proposed Highway

International Border

Figure 1-1



Project Location - Otay Mesa Area

Legend

- Existing Freeway
- Existing Roadway or Ramp
- Proposed Project
- Proposed Freeway/Tollway
- Proposed Roadway or Ramp

Figure 1-2

2.0 METHODOLOGY

This chapter provides an overall description of the methodology and assumptions used in preparing the Tier II traffic analysis for the State Route 11/Otay Mesa East Land Port of Entry Project (LPOE). It is divided into sections that describe various aspects of the analysis.

OPENING YEAR OF PROJECT

The "Opening Year" of the project, when construction would be complete and the facility open to traffic, is assumed to occur in the year 2015. The "Horizon Year" (or build-out) for traffic forecasts is 2035, twenty years after opening day, based on standard practice.

PROJECT DESIGN CONCEPT

The project includes the proposed SR-11 roadway and the proposed Otay Mesa East LPOE. SR-11 is proposed as a facility (freeway/tollway) from the future SR-905/SR-125 interchange to the proposed Otay Mesa East LPOE. The Otay Mesa LPOE is proposed to include a Commercial Vehicle Enforcement Facility (CVEF) and a transit center. Three basic design concepts are being considered for SR-11, as follows:

- Two Interchanges (Figure 2-1): Full interchange at Enrico Fermi Drive and half interchange at Siempre Viva Road (access to and from the west only)

- One Interchange (Figure 2-2): Interchange at Alta Road

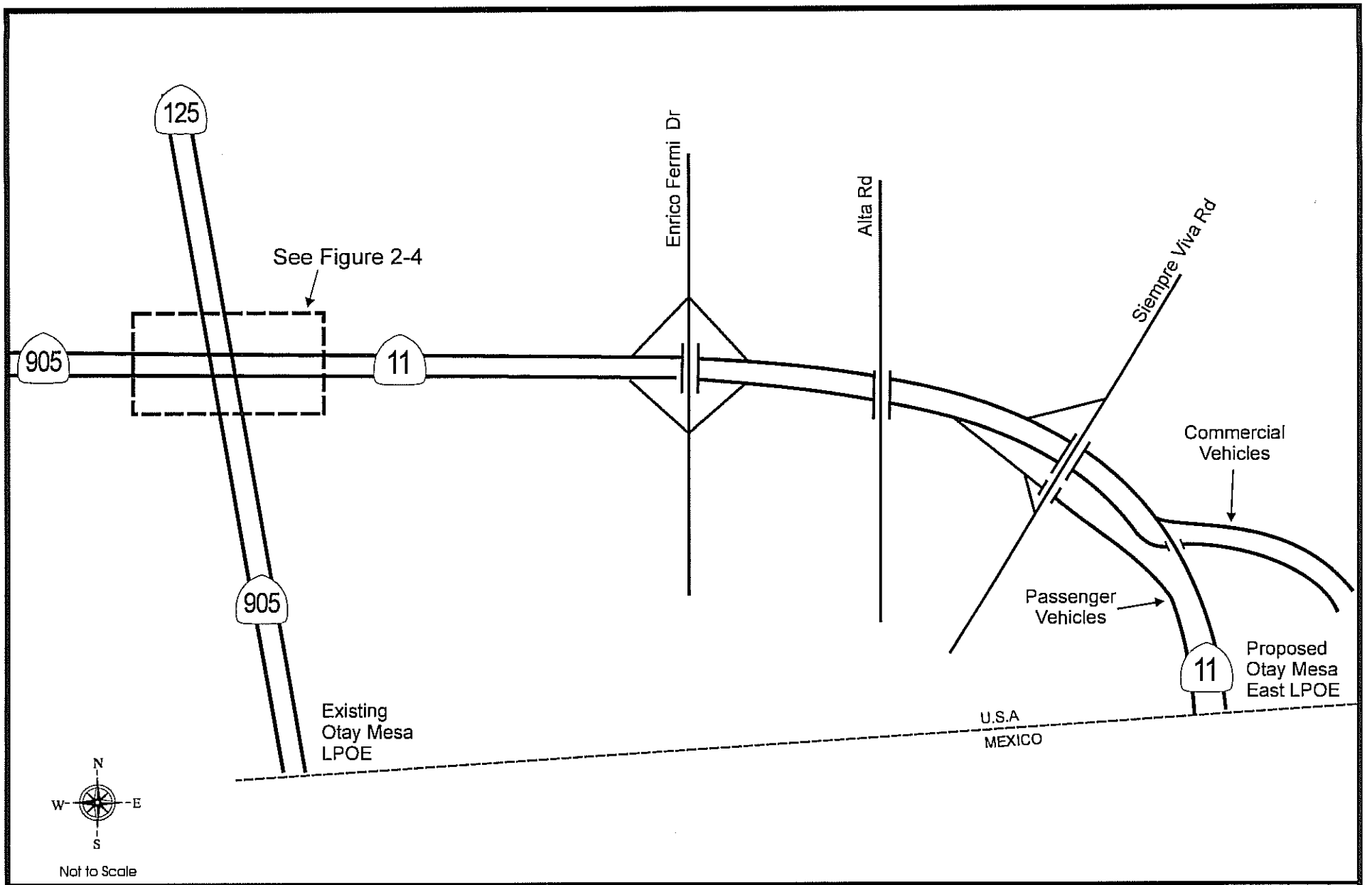
- No Interchanges (Figure 2-3): No local access interchanges between the SR-905/SR-125/SR-11 interchange and the international border

The design concept for the SR-905/SR-11/SR-125 interchange, which is common to all of the alternatives described above, is shown in Figure 2-4.

The basic design concept for SR-11 assumes that it is built as a tollway. In addition, the following design variations are being considered:

- No Toll Design Variation: This design variation would not change the roadway layout or lane geometry, but assumes that SR-11 is built as a freeway,

- SR-125 Connector Design Variation (Figure 2-5): This design variation assumes the construction of a connector ramp from southbound SR-125 to eastbound SR-11, in addition to the basic SR-905/SR-125/SR-11 interchange layout..



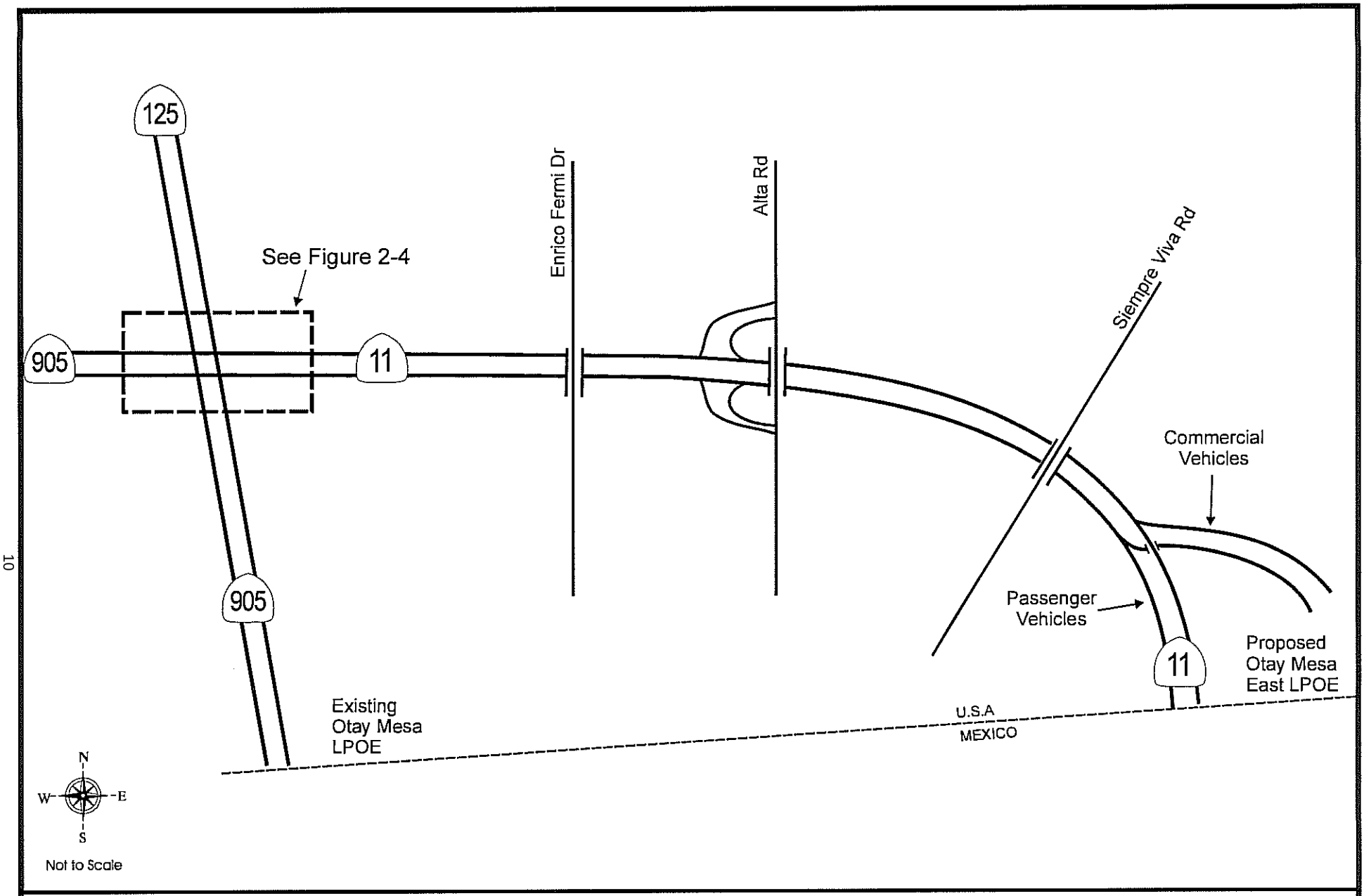
Project Design Concept - Two Interchange Alternative

Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed County/City Roadway

Figure 2-1

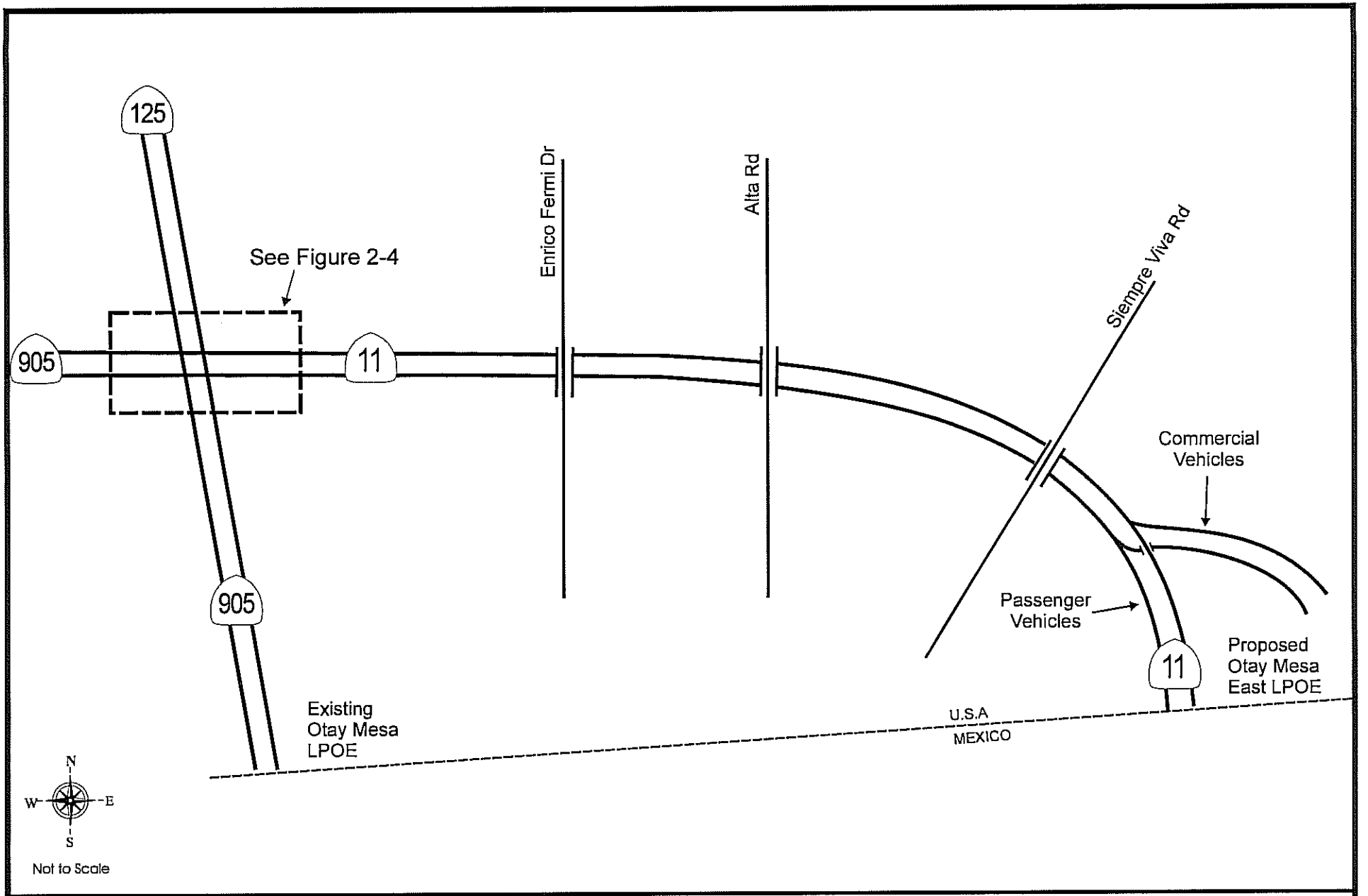


Project Design Concept - One Interchange Alternative

Legend

Existing or Proposed Freeway/Tollway
Existing or Proposed County/City Roadway

Figure 2-2



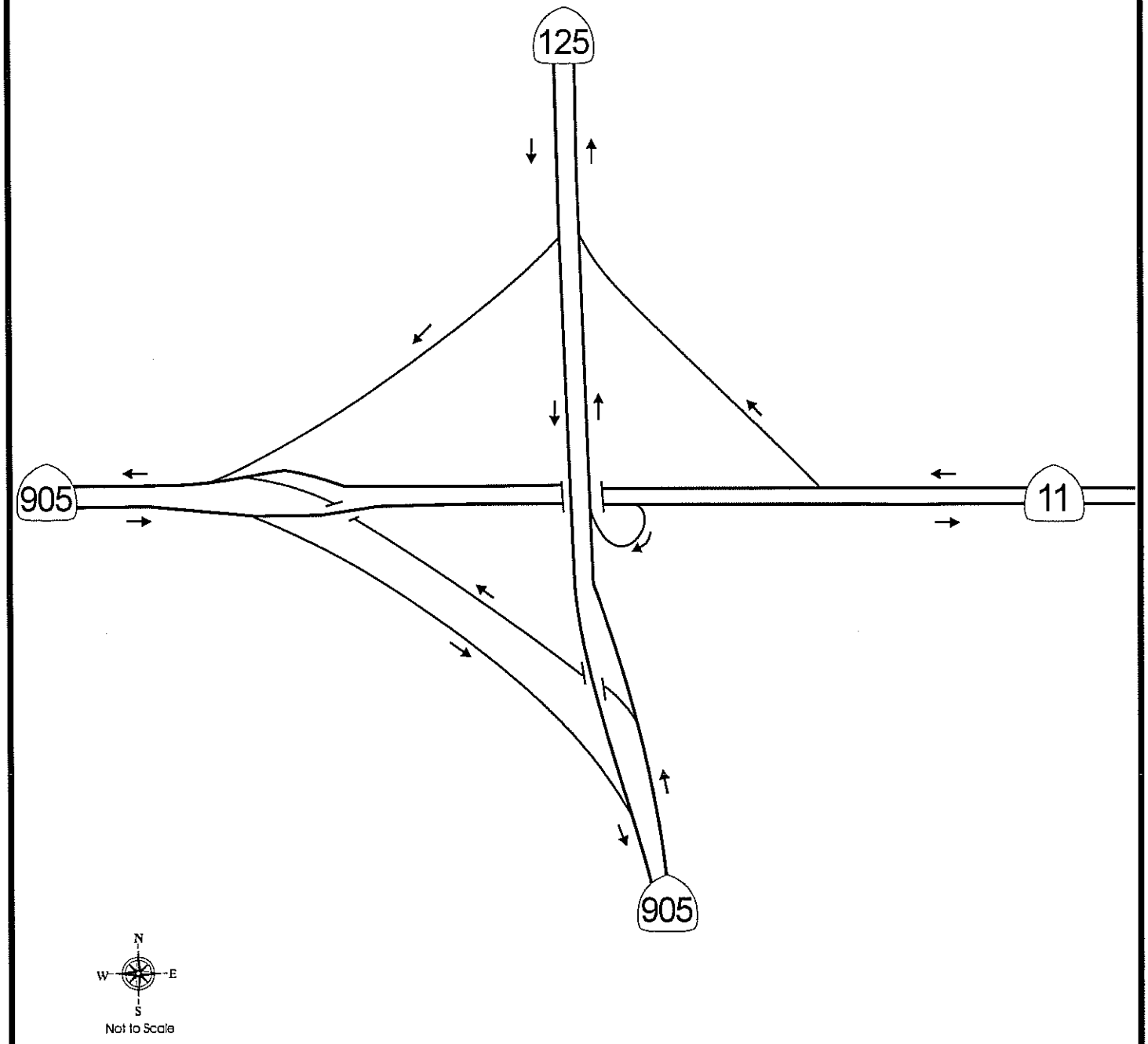
Project Design Concept - No Interchange Alternative

Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed County/City Roadway

Figure 2-3



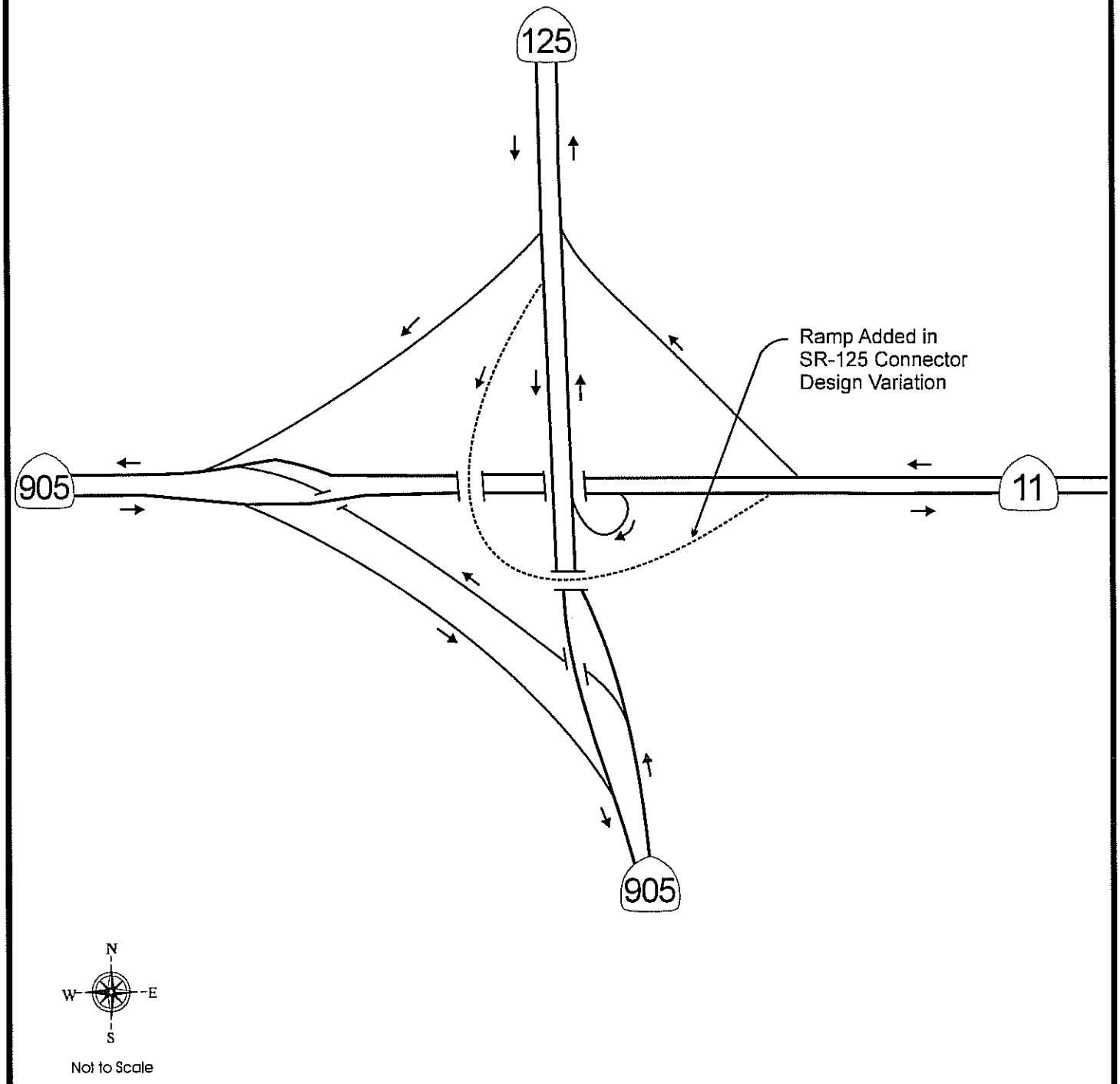
SR-905 / SR-125 / SR-11 Interchange Details

Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed Ramp

Figure 2-4



SR-125 Connector Design Variation

Legend

Existing or Proposed Freeway/Tollway

Proposed Connector Ramp

Proposed Ramp (SR-125 Connector Design Variation)

Figure 2-5

- Full Interchange Design Variation (Figure 2-6): This design variation assumes the construction of a full interchange at SR-905/SR-125/SR-11 that would provide direct connectors for all traffic movements. This would add three connector ramps to the basic SR-905/SR-125/SR-11 interchange layout: southbound SR-125 to eastbound SR-11, northbound SR-905 to eastbound SR-11, and westbound SR-11 to southbound SR-905.

- SR-11/Siempre Viva Road Interchange Design Variation (Figure 2-7): This is a design variation of the Two Interchange Alternative that assumes a full interchange at SR-11/Siempre Viva Road. This design variation was analyzed with the basic Two Interchange Alternative (i.e. with Toll, without a connector ramp from southbound SR-125 to eastbound SR-11 and without a full interchange at SR-905/SR-125/SR-11).

PROJECT ALTERNATIVES AND DESIGN VARIATIONS

There are three project alternatives , each of which assumes the construction of SR-11 as a tollway:

- Two Interchange Alternative
- One Interchange Alternative
- No Interchange Alternative

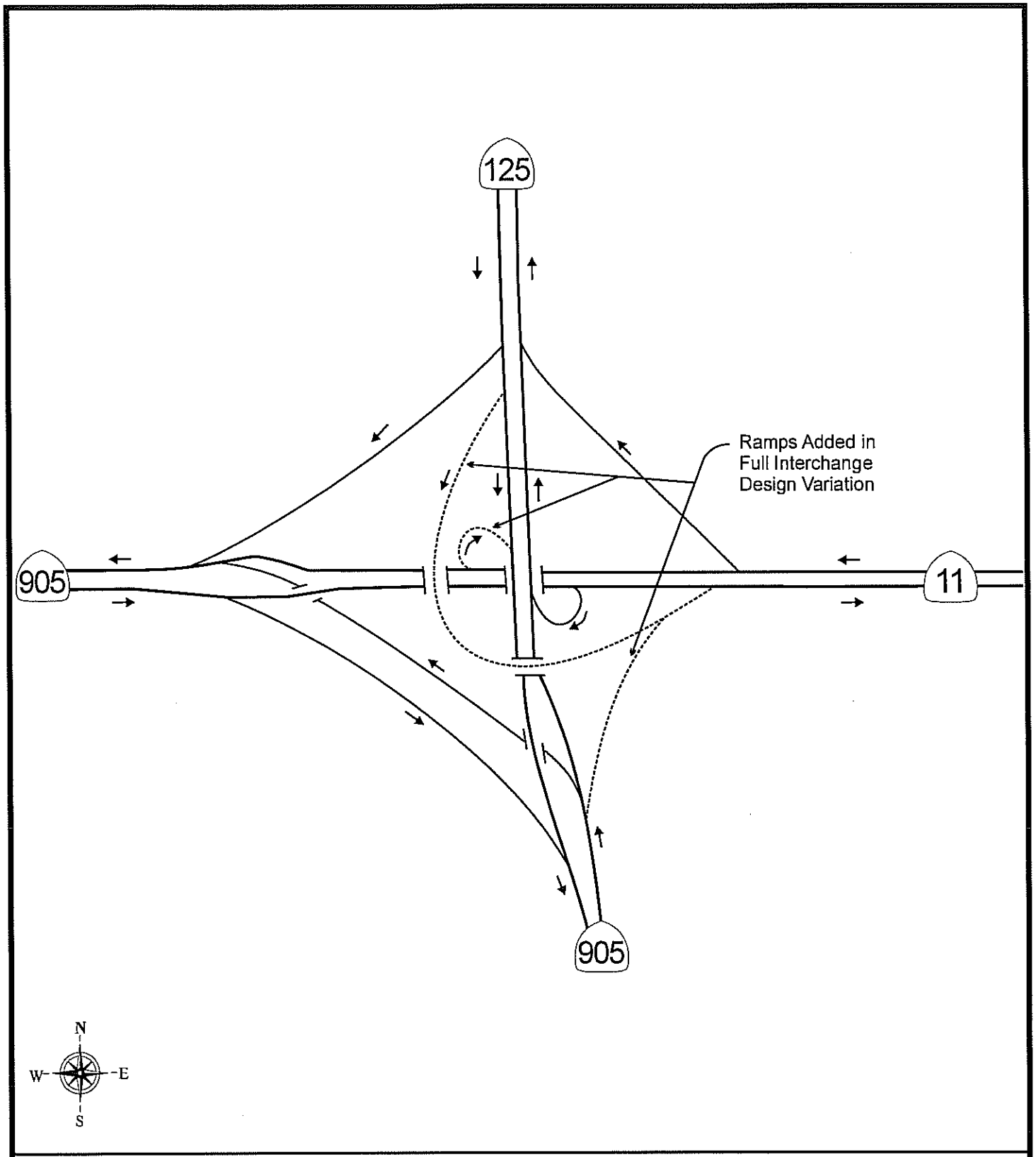
Each of the alternatives has been analyzed along with the following design variations:

- No Toll Design Variation
- SR-125 Connector Design Variation
- Full Interchange Design Variation

In addition, a design variation of the Two Interchange Alternative was analyzed that assumes that a full interchange would be provided at SR-11/Siempre Viva Road.

In combination with the No Build Alternative, this led to the analysis of 14 different scenarios of traffic conditions that were analyzed for Opening Year (2015) conditions and Horizon Year (2035) conditions, as summarized in Table 2-1.

It should be noted that the No Build scenario assumes construction of SR-905 and SR-125, as well as an extension of SR-905 that would connect from the SR-905/SR-125



Full Interchange Design Variation

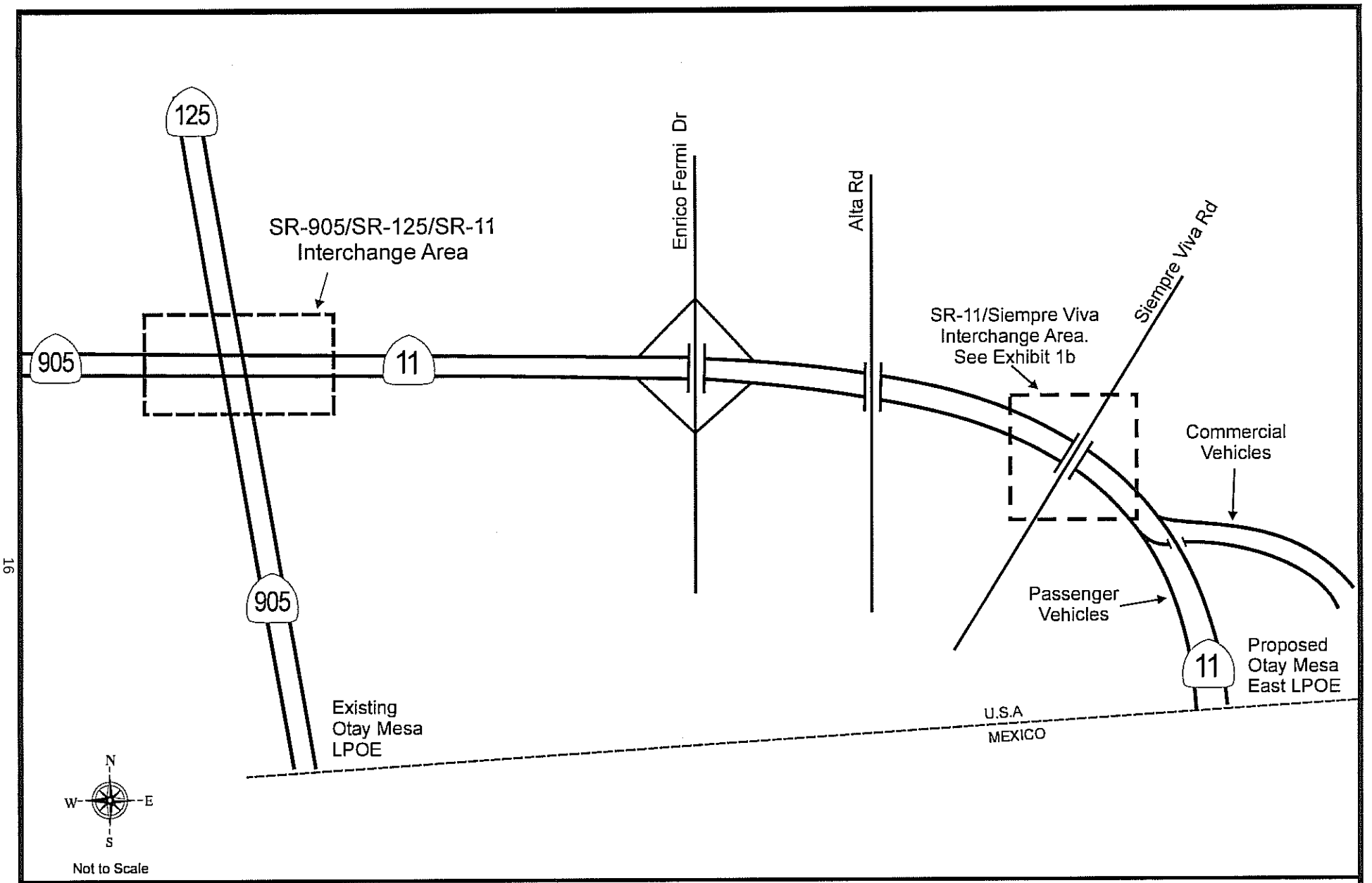
Legend

Existing or Proposed Freeway/Tollway

Proposed Connector Ramp (All Alternatives)

Added Ramps (Full Interchange Design Variation)

Figure 2-6



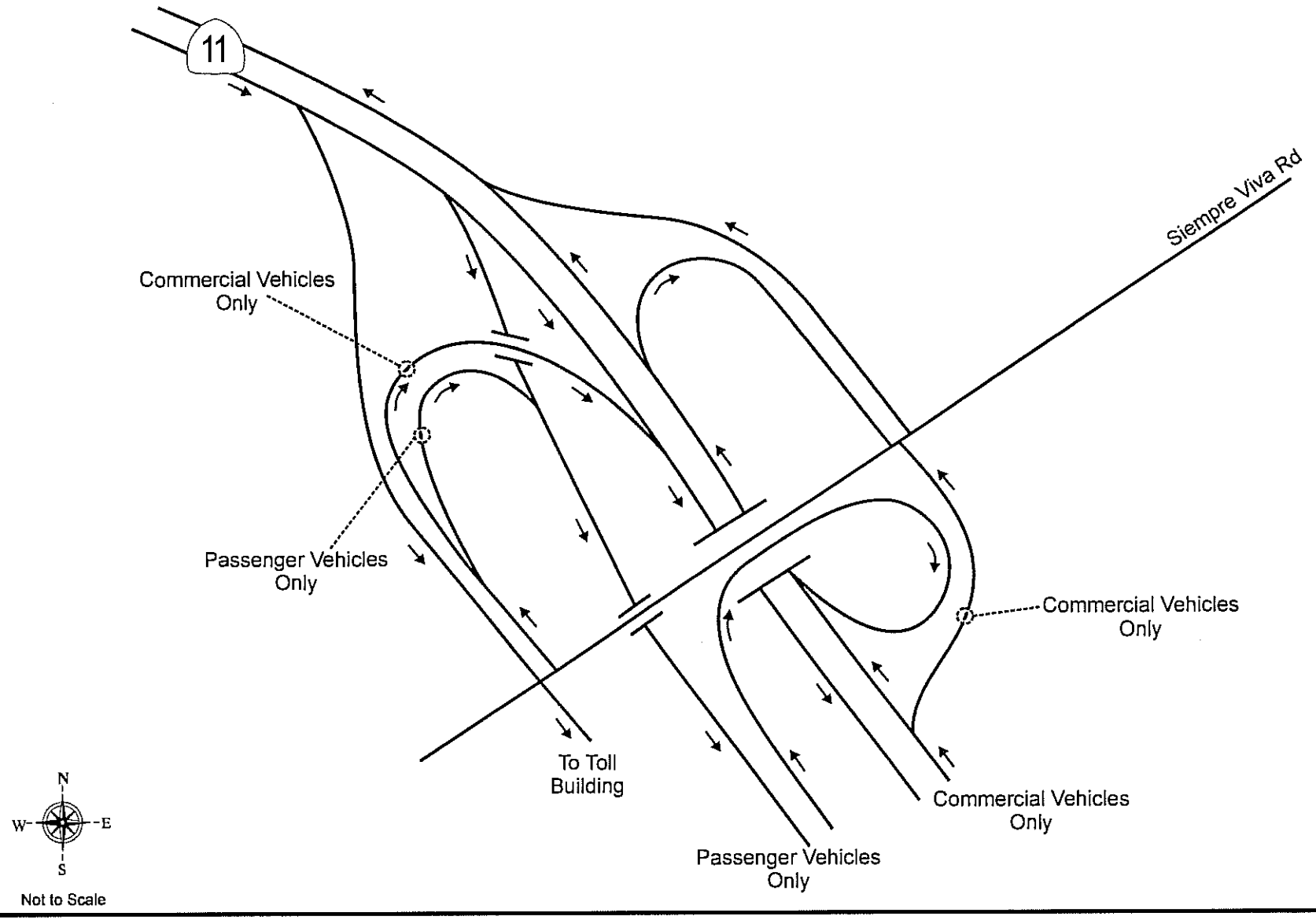
Project Design Concept
SR-11/Siempre Viva Road Interchange Design Variation

Legend

Existing or Proposed Freeway/Tollway

Ramp

Figure 2-7a



Project Design Concept
SR-11/Siempre Viva Road Interchange Design Variation

Legend

Existing or Proposed Freeway/Tollway

Ramp

Figure 2-7b

Table 2-1
ALTERNATIVES AND DESIGN VARIATIONS

Scenario	Alternative/Design Variation	Year	Roadway Network	Land Use	Status of SR-11	Status of New Otay Mesa East Land Port of Entry	Status of Existing Otay Mesa Land Port of Entry	Location of Commercial Inspection Facilities	Status of SR-11 Interchanges	Status of SR-905/SR-125/SR-11 Interchange	Model Run (Y/N)
Existing	None	2009	Existing	Existing	No SR-11	No New Port	Open to All Traffic, No Modernization	Existing Otay Mesa CVEF	No SR-11 Interchanges	No Interchange	N
No Build	None	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	No SR-11 (4)	No New Port	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF	No SR-11 Interchanges	Partial Interchange Built by Other Projects	Y
Build	Two Interchange Alternative	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchanges at Enrico Fermi and Siempre Viva	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	One Interchange Alternatvie	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchange at Alta	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	No Interchange Alternative	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	No SR-11 Interchanges	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	No Toll Two Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Freeway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchanges at Enrico Fermi and Siempre Viva	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	No Toll One Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Freeway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchange at Alta	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	No Toll No Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Freeway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	No SR-11 Interchanges	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y
Build	SR-125 Connector Two Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchanges at Enrico Fermi and Siempre Viva	Add Southbound SR-125 to Eastbound SR-11 Ramp Connector	Y
Build	SR-125 Connector One Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchange at Alta	Add Southbound SR-125 to Eastbound SR-11 Ramp Connector	Y
Build	SR-125 Connector No Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	No SR-11 Interchanges	Add Southbound SR-125 to Eastbound SR-11 Ramp Connector	Y
Build	Full Interchange Two Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchanges at Enrico Fermi and Siempre Viva	Full Interchange	Y
Build	Full Interchange One Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchange at Alta	Full Interchange	Y
Build	Full Interchange No Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	No SR-11 Interchanges	Full Interchange	Y
Build	SR-11/Siempre Viva Road Interchange Design Variation	2015/2035 (1)	2030 Revenue Constrained (2)	SANDAG 2030 (3)	SR-11 Tollway	Open to All Traffic	Open to All Traffic, With Modernization	Existing Otay Mesa CVEF and New Otay Mesa East CVEF	Interchanges at Enrico Fermi and Siempre Viva (With Full Interchange at Siepre Viva)	Basic SR-905/SR-125/SR-11 Interchange Design Concept	Y

(1) Separate traffic analyses were conducted for Opening Day (2015) conditions and Horizon Year (2035) conditions.
(2) The roadway network was based the 2030 Revenue Constrained scenario from the currently adopted SANDAG Regional Transportation Plan.
(3) Land use forecasts were based on the SANDAG 2030 Regional Growth Forecast Update, also known as "Series 11".
(4) The No Build scenario included construction of an arterial roadway on the SR-11 alignment from the SR-905/SR-125 interchange to Enrico Fermi Drive.

List of Acronyms
SR-11 = State Route 11
CVEF = Commercial Vehicle Enforcement Facility
SANDAG = San Diego Association of Governments

interchange to Enrico Fermi Drive. These roadway improvements were assumed to be in place in the No Build condition because they have been approved for implementation in previous environmental review processes.

STUDY AREA

The study area generally includes SR-11, as well as state highways and local roadways that have the potential to experience a substantial increase or decrease in traffic depending on whether SR-11 and the Otay Mesa East LPOE are built. This includes all of SR-905, portions of I-5, I-805, and SR-125, as well as key local roadways east of Britannia Boulevard and south of the Otay River Valley.

TRAFFIC ANALYSIS PERIODS

Traffic analysis was conducted based on Average Daily Traffic conditions for Existing (2009) conditions, Opening Year (2015) conditions, and Horizon Year (2035) conditions.

LAND USE ASSUMPTIONS

Traffic forecasts for this study were based on the San Diego Association of Governments (SANDAG) regional transportation model. One of the inputs to the model is land use forecasts for the time periods under study. The land use forecasts used in the regional transportation model are based on City and County General Plans as well as overall forecasts of population growth and economic activity. Land use forecasts are updated periodically by SANDAG. The set of land use forecasts that were currently available during the time of this study is known as the SANDAG 2030 Regional Growth Forecast Update, also known as "Series 11".

The Series 11 land use forecasts were updated to include pending and approved land development projects in the County and City of San Diego areas of Otay Mesa that were not included in Series 11. In order to make this determination, transportation planning staff members of SANDAG, Caltrans, San Diego County, and the City of San Diego compared current approved and pending development plans to the levels of development currently shown in Series 11. Where necessary, land use intensity levels in the model were increased to match the information provided in local development plans. Documentation of the land use forecast update is provided in Appendix I.

ROADWAY NETWORK

The SANDAG regional transportation model also includes an assumed future roadway network for various time periods. The roadway network is based on the SANDAG Regional Transportation Plan (RTP) as well as City and County General Plans. The officially adopted roadway network that was used in this study was the 2030 Revenue Constrained Plan Scenario from the 2007 SANDAG Regional Transportation Plan.

Key features of the 2015 roadway network in the project study area include the following:

- Construction of SR-905 as a six-lane freeway from I-805 to the international border
- Construction of SR-125 as a four-lane freeway from Otay Mesa Road to the SR-905/SR-125 interchange
- Construction of a roadway connection from the SR-905/SR-125 interchange to Enrico Fermi Drive
- Addition of two HOV lanes on I-805 between East Palomar Street and SR-94
- Construction of a large number of local roadways in the Otay Mesa area

The 2030 roadway network includes the following additional improvements:

- Addition of an interchange at SR-125/Lone Star Road that is not included in the 2015 scenario
- Widening of SR-125 to eight lanes between Telegraph Canyon Road and SR-54
- Widening of I-805 between East Palomar Street and SR-94 to a managed lane facility with twelve total lanes

FUTURE TRAFFIC FORECASTS

Future traffic forecasts were based on the latest approved land use forecasts and roadway network plans for the San Diego region at the time the study was initiated using the SANDAG regional transportation model, as described above. Since the model's horizon year is 2030 and the horizon year for this study is 2035, a growth factor of 1% per year was used to convert from 2030 traffic forecasts to 2035 traffic forecasts. This growth factor was based on engineering judgment and is a typical growth factor used in the San Diego region to convert from 2030 to 2035 traffic forecasts.

In addition, adjustments to the regional transportation model were made in two areas where refinements were considered to be needed.

- An adjustment to the model was necessary to predict the distribution of traffic between the various San Diego/Mexico border crossings.
- An adjustment for the model was also made to account for the effect of no tolls on SR-11.

These adjustments are described below. The resulting traffic forecasts are summarized in Table 2-2.

No Build Traffic Forecasts

Since SR-11 and the Otay Mesa East LPOE are assumed to be in place in the SANDAG regional transportation model, border crossing traffic forecasts are available for this scenario. For the No Build alternative, it was necessary to determine the average daily traffic crossing the border at the San Ysidro and Otay Mesa border crossings, assuming there is no LPOE at Otay Mesa East.

The primary source of information for the No Build Alternative border crossing forecasts is a previous study of border crossing traffic conducted by SANDAG (San Diego Region - Baja California Cross-Border Transportation Study, prepared for SANDAG by Parsons Transportation Group, November 2000). The results from this study indicate that the traffic crossing the border at the Otay Mesa East LPOE would distribute as follows in the No Build Alternative:

San Ysidro: 70% Otay Mesa: 25% Tecate: 5%

Although the Tecate LPOE was included in the previous calculations, the current re-distribution of traffic was limited to the San Ysidro and Otay Mesa LPOEs. This revision limits the re-distribution of traffic to the urban portion of San Diego County and is considered to be conservative, since it does not rely on the assumption that future border crossing traffic will have convenient access to the Tecate LPOE, which is currently served by the rural two-lane section of SR-94.

With the removal of Tecate LPOE from the calculation and with the assumption that traffic will be re-distributed according to the 2000 SANDAG/Parsons Transportation Group study, the resulting re-distribution of traffic would be as follows:

San Ysidro: 73.7% Otay Mesa: 26.3%

The resulting traffic forecasts are as follows:

LPOE	2030 Toll ADT	2030 No Build ADT
San Ysidro	144,200	175,800
Otay Mesa	70,400	81,800
Otay Mesa East	43,000	0
Total	257,600	257,600

Table 2-2

SUMMARY OF TWO-WAY AVERAGE DAILY TRAFFIC FORECASTS AT INTERNATIONAL BORDER CROSSINGS

Analysis Year	SR-11 Scenario	San Ysidro			Otay Mesa			Otay Mesa East		
		Autos	Trucks	Total	Autos	Trucks	Total	Autos	Trucks	Total
2009	Existing	114,200	0	114,200	33,500	5,300	38,800	0	0	0
2015	No Build	130,700	0	130,700	41,700	7,700	49,400	0	0	0
2015	Build / Toll	112,100	0	112,100	37,200	5,000	42,200	23,100	2,700	25,800
2015	Build / No Toll	109,300	0	109,300	36,400	4,600	41,000	26,700	3,100	29,800
2035	No Build	186,200	0	186,200	73,400	12,000	85,400	0	0	0
2035	Build / Toll	151,600	0	151,600	67,300	7,200	74,400	40,800	4,800	45,600
2035	Build / No Toll	145,800	0	145,800	66,600	6,400	73,000	47,200	5,600	52,800

The traffic forecasts shown above are based on total vehicles (autos plus trucks) because the source document for the traffic forecasts (the 2000 SANDAG/Parsons Transportation Group study) reported its results in terms of total vehicles. The effects of trucks are described later in this report. These values were adjusted upward using the growth factor of 1% per year to reflect 2035 traffic for the traffic analysis.

It should be noted that the current SR-11/Otay Mesa East LPOE traffic analysis assumes that the total level of traffic entering all POE's in the study area (San Ysidro, Otay Mesa, and Otay Mesa East) is the same in the No Build and Build alternatives. The reasons for this assumption are the following:

- The assumption of constant demand allows direct comparisons regarding how well alternative scenarios of transportation improvements will serve a given level of traffic demand. These comparisons are useful in certain transportation planning and policy considerations.

- The assumption of constant demand is consistent with other regional transportation analyses that assume a constant level of travel demand. For example, the SANDAG Regional Transportation Plan analyzes various scenarios of future roadway improvements without varying the level of land use that creates the demand for travel.

- The assumption of constant demand is a worst-case assumption from the point of view of the level of transportation improvements needed for the No Build Alternative. The regional transportation model on which the traffic analysis is based assumes that the SR-11/Otay Mesa East project is built. Therefore, the border crossing travel demand in the Build Alternative can be obtained directly from the model. In the No Build Alternative, assuming a variable demand for border crossing travel would involve reduced traffic levels on roadways near the border crossing. The assumption of constant border crossing travel demand creates a worst-case assumption allows for a conservative traffic forecast that will avoid understating the need for transportation improvements near the LPOE's in the No Build Alternative.

No Toll Alternative Border Crossing Traffic Forecasts

Since the SANDAG regional transportation model assumes implementation of SR-11 as a tollway, it was necessary to determine a traffic forecast for the Otay Mesa East LPOE assuming SR-11 is implemented as a freeway. The primary source of information regarding the effect of tolls on border crossing traffic is considered to be a recent feasibility study of SR-11 and the Otay Mesa East LPOE conducted by SANDAG and Caltrans (State Route 11 Toll Road and East Otay Mesa Port of Entry Financial Feasibility Study, Final Report, Prepared for SANDAG and the California Department of Transportation, District 11, Prepared by HDR/HLB Decision Economics, December 21, 2006). It should be noted that this study was prepared for financial feasibility analysis and it is therefore somewhat

conservative in its assumptions. However, there is information contained in the study that is applicable to traffic forecasting.

The methodology used data from the SANDAG financial feasibility study to estimate the amount of additional traffic that would use the Otay Mesa East LPOE if SR-11 were built as a freeway. Drivers crossing the border are assumed to make decisions regarding which LPOE to use based on the following considerations:

- Border crossing wait time at each LPOE
- Additional travel time required to use the Otay Mesa and Otay Mesa East LPOEs (The assumption is that the San Ysidro LPOE is the most convenient crossing point for the average traveler and that the motivation for the average traveler to use the Otay Mesa or Otay Mesa East LPOEs would be to achieve a lower wait time to cross the border)
- Toll charges (if any) to cross the border

Using the parameters defined above, it is possible to model the decision process used by the average driver to choose a particular border crossing that results in an equivalent border crossing penalty at each LPOE (expressed in terms of additional travel time plus the time-equivalent of the toll charge). This calculation can be calibrated to match the traffic forecasts that are provided by the SANDAG regional transportation model in the case of the Toll Alternative. Calculation of the traffic forecasts for the No Toll Alternative was determined by removing the toll penalty at Otay Mesa East and equalizing the total border crossing penalties at the three LPOEs for the average driver.

The calculation described above was carried out separately for "peak period autos", "peak period trucks", "off peak period autos" and "off peak period trucks" since the border crossing decision was determined to vary by time of day and vehicle classification, as determined in the SANDAG financial feasibility study.

The resulting traffic forecasts are as follows:

LPOE	2030 Toll ADT	2030 No Toll ADT
San Ysidro	144,200	138,800
Otay Mesa	70,400	68,400
Otay Mesa East	43,000	50,400
Total	257,600	257,600

The traffic forecasts shown above are based on total vehicles and the effects of trucks are described in the next section.

For comparison purposes, it should be noted that the traffic forecasts shown above indicate a toll diversion rate of 14.7% when comparing the 50,400 daily vehicles using the Otay Mesa East LPOE in the No Toll Alternative, compared to the 43,000 vehicles using the Otay Mesa East LPOE in the Toll Alternative.

In the table shown above, the proportional traffic decrease at San Ysidro and Otay Mesa were calculated based on the percentages of traffic added to these two LPOEs in the No Build Alternative (i.e., 73.7% at San Ysidro and 26.3% at Otay Mesa).

TRUCK FORECASTS

The traffic forecasts provided above plus available data regarding truck traffic forecasts lead to the auto and truck traffic forecasts shown in Table 2-2. The following assumptions were made in preparing the traffic forecasts shown in the table.

- Auto and truck traffic values for 2007/Existing Conditions were obtained from the SR-11/Otay Mesa East Phase I traffic analysis. The 2007 counts were considered to be representative of 2009 conditions because available data indicate that there have been no consistent patterns of traffic increases or decreases between 2007 and 2009.

- Truck traffic forecasts for the 2035 No Build Alternative at Otay Mesa were obtained based on the SR-11/Otay Mesa East Phase I traffic analysis and an assumption of 1% per year traffic growth from 2030 to 2035. Auto traffic forecasts for the 2035 No Build Alternative at Otay Mesa were obtained by subtracting trucks from the total 2035 No Build traffic forecast at Otay Mesa as determined above.

- Total vehicles at each LPOE for the 2030 Toll Alternative were obtained from the 2030 SANDAG regional transportation model. Total truck traffic crossing the border in the Toll Alternative was assumed to be the same as for the No Build Alternative and was obtained based on the SR-11/Otay Mesa East Phase I traffic analysis and an assumption of 1% per year traffic growth from 2030 to 2035. The division of truck traffic between Otay Mesa and Otay Mesa East was based on existing truck border crossing patterns and information from the SANDAG financial feasibility study. Auto traffic forecasts for the 2030 Toll Alternative at Otay Mesa and Otay Mesa East were obtained by subtracting trucks from the total 2030 Toll traffic forecasts as determined above.

- Total vehicles at each LPOE for the 2030 No Toll Alternative were obtained from the calculations described above. Total truck traffic crossing the border in the No Toll

Alternative was assumed to be the same as for the No Build Alternative and was obtained based on the SR-11/Otay Mesa East Phase I traffic analysis and an assumption of 1% per year traffic growth from 2030 to 2035. The division of truck traffic between Otay Mesa and Otay Mesa East was based on existing truck border crossing patterns and information from the SANDAG financial feasibility study. Auto traffic forecasts for the 2030 No Toll Alternative at Otay Mesa and Otay Mesa East were obtained by subtracting trucks from the total 2030 Toll traffic forecasts as determined above.

TRAFFIC GENERATION AT OTAY MESA EAST LAND PORT OF ENTRY

The proposed SR-11 roadway and the proposed Otay Mesa East Land Port of Entry were analyzed as one project for the purposes of this study. However, there is a distinction between the roadway portion of the project and the LPOE portion of the project in that the roadway is not expected to generate new trips whereas the LPOE is expected to generate new employee and visitor trips. The trips generated by the LPOE are considered to be included in the border crossing traffic forecasts. Therefore, the traffic entering and leaving the LPOE site is composed of the sum of traffic crossing the international border and traffic generated by employees and visitors to the LPOE who would enter and leave the LPOE site from the U.S. without ever crossing the border.

While the traffic generated at the LPOE is included in the project traffic analysis, it was considered important to provide an estimate of the traffic generated by employees and visitors. The estimate was based on information contained in a study of a proposed expansion of the San Ysidro LPOE (San Ysidro Land Port of Entry, Border Station Expansion Traffic Impact Study, GSA/KOA Corporation, September 2008). This study documents trip generation for the existing San Ysidro POE with 798 employees and a two-way vehicle border crossing total of 114,200. On a proportional basis the Otay Mesa East POE would be expected to have 320 employees in 2035 with the following trip generation:

Average Daily Traffic: 960
AM Peak Hour Traffic: 86
PM Peak Hour Traffic: 96

TOLL COLLECTION OPERATIONS

For the scenarios in which SR-11 is built as a tollway, toll collection facilities will need to be provided. Although many of the details of the toll collection process will be provided in more detailed design phases of the project, the following traffic analysis is provided for information regarding toll collection operations.

This analysis assumes that the toll collection operations will have the following features:

- Main toll plaza located between the LPOE and the Siempre Viva Road

- Separate facilities will be provided for autos and trucks. Both autos and trucks will be provided with one FasTrak lane and two manual toll collection lanes in each direction of travel.

- The eastbound SR-11 off ramps and the westbound SR-11 on ramps will have toll collection facilities consisting of one FasTrak lane and one manual toll collection lane in order to collect tolls from SR-11 travelers who would not pass through the main toll plaza.

The following assumptions were made regarding toll collection operations:

- FasTrak lanes will have a capacity of 1,800 vehicles per hour.

- Manual toll collection lanes will have a capacity of 720 vehicles per hour.

Using these assumptions, the greatest use of a FasTrak lane will be northbound at the main toll plaza in 2035 in the PM peak hour, where 1,554 vehicles per hour would be expected to use the lane in comparison to a capacity of 1,800 vehicles per hour. The greatest use of a manual toll collection lane will be westbound at the Enrico Road westbound on ramp in 2035 in the PM peak hour, where 598 vehicles per hour would be expected to use the lane in comparison to a capacity of 720 vehicles per hour.

FUTURE ROADWAY IMPROVEMENTS

Both the No Build and Build alternatives assume a number of roadway improvements will be in place by the analysis time periods of 2015 and 2035. In order to provide a reasonable basis of comparison, the roadway improvements assumed in the No Build and Build alternatives are the same, except for the SR-11 project itself. Future roadway improvements were determined as follows:

- Freeways and other state highways were assumed to be built and/or improved as stated in the SANDAG Regional Transportation Plan, Revenue Constrained scenario.

- Future County and City roadways were assumed to be built if they were included in the SANDAG Regional Transportation Plan, Revenue Constrained scenario. The roadway width and lane configuration were based on Community Plan Circulation Elements.

- Intersection turn lanes were based on judgment, based on roadway segment widths and future traffic forecasts.

CAPACITY ANALYSIS

Capacity analysis for the SR-11 freeway mainline, ramps, and weaving areas was based on the 2000 Highway Capacity Manual. Parameters used in this analysis are shown in Table 2-3. A few modifications to the Highway Capacity Manual analysis were made as follows:

- Ramp merge and diverge capacity analysis was conducted for weaving areas for informational purposes, although this is not required in the Highway Capacity Manual procedures.

- There is no applicable procedure in the Highway Capacity Manual for analyzing a ramp diverge where one of the freeway lanes is forced to exit, but the freeway segment is too long to be defined as a weaving section. This situation occurs along SR-11 in the Two Interchange design concept. In this case, a conservative ramp diverge analysis was conducted, assuming that the freeway lane which was forced to exit did not exist.

- There is no applicable procedure in the Highway Capacity Manual for analyzing a ramp merge where one of the freeway lanes is added, but the freeway segment is too long to be defined as a weaving section. This situation occurs along SR-11 in the Two Interchange design concept. In this case, a conservative ramp merge analysis was conducted, assuming that the freeway lane which was added did not exist.

Roadway segment capacity analysis was conducted differently for state highways, San Diego County roadways, and City of San Diego roadways. State highways were analyzed using a methodology developed by Caltrans – District 11 and documented in the San Diego Regional Traffic Impact Study Guidelines. San Diego County and City of San Diego roadways were analyzed using the traffic impact study guidelines published by these two agencies. Documentation of these methodologies is included in Appendices B, C, and D.

Intersection capacity analysis was conducted using the Synchro signal timing program. Assumptions used in this analysis are shown in Table 2-4. Additionally, SR-11 ramp terminal intersections were analyzed using the Intersecting Lane Volumes (ILV) methodology described in the Caltrans Highway Design Manual.

Roadway and intersection operations are typically described in terms of levels of service ranging from level of service A (light traffic, minimal delays) to level of service F (traffic congestion and substantial delays). Depending on local conditions, levels of service C, D, and E are all used as the design target for various traffic engineering applications.

Table 2-3

SR-11/OTAY MESA EAST POE TRAFFIC ANALYSIS

CAPACITY ANALYSIS ASSUMPTIONS FOR SYNCHRO MODEL

LANE GEOMETRY

- Storage lengths of turn lanes for existing intersections will be measured in the field and rounded to the nearest 25 feet
- Storage lengths for turn lanes for future intersections will be assumed to be 150 feet and adjusted if necessary based on traffic volumes

TRAFFIC CONDITIONS

- The peak hour factor for all scenarios will be 0.92

SIGNAL TIMING PARAMETERS

- Signal phasing will be based on a field review, yellow times will be input as 4.0 seconds, and red times will be input as 1.0 seconds. Minimum green times will be 6 seconds for left-turn on minor street, 8 seconds for left-turn on major street or through traffic on minor street, and 10 seconds for through traffic on major street
- Lead-Lag Optimize will be set to "fixed" for all scenarios
- All existing traffic signals will be assumed to be actuated and uncoordinated except for the signals located at the interchanges, which will be assumed to be actuated and coordinated. The study roadway network will be set up as an individual Synchro file
- Future intersections will be assumed to be signalized when signal warrants are met. Future intersections will be actuated and will either be isolated or coordinated, depending on location. Coordination zones will be based on judgment.
- When conducting Synchro optimizations, the Allow Uncoordinated option will be set to Never, the Allow Half Cycle Option will be turned on, Offset Optimization will be set at Medium, and the Automatic Optimization option will be used. Network cycle lengths will be determined by optimization at each intersection and coordination zone.

Table 2-4

FREEWAY AND RAMP CAPACITY ANALYSIS ASSUMPTIONS

Parameter	Value Used in Study
Free Flow Speed	65 mph
Terrain	Level
Percent Trucks	15%
Percent Recreational Vehicles	1%
Peak Hour Factor (PHF)	0.95
Driver Population Factor	1.00
Lane Width	12 feet
Right-Shoulder Lateral Clearance	6 feet or greater
Interchange Density	1.0 miles

3.0 EXISTING CONDITIONS (2009)

This chapter provides an analysis of existing traffic conditions in the study area.

ROADWAY CLASSIFICATIONS

Roadway classifications for existing conditions were determined by VRPA Technologies based on the current characteristics of the roadways being examined. For freeways, the only issue was the number of lanes provided. In the case of City and County roadways, the roadway classification used was the one that most closely matched the existing condition of the roadway with the categories listed in Appendices B and C. Existing roadway segment classifications and intersection lane geometry are shown in Figures 3-1 and 3-2.

EXISTING TRAFFIC CONDITIONS

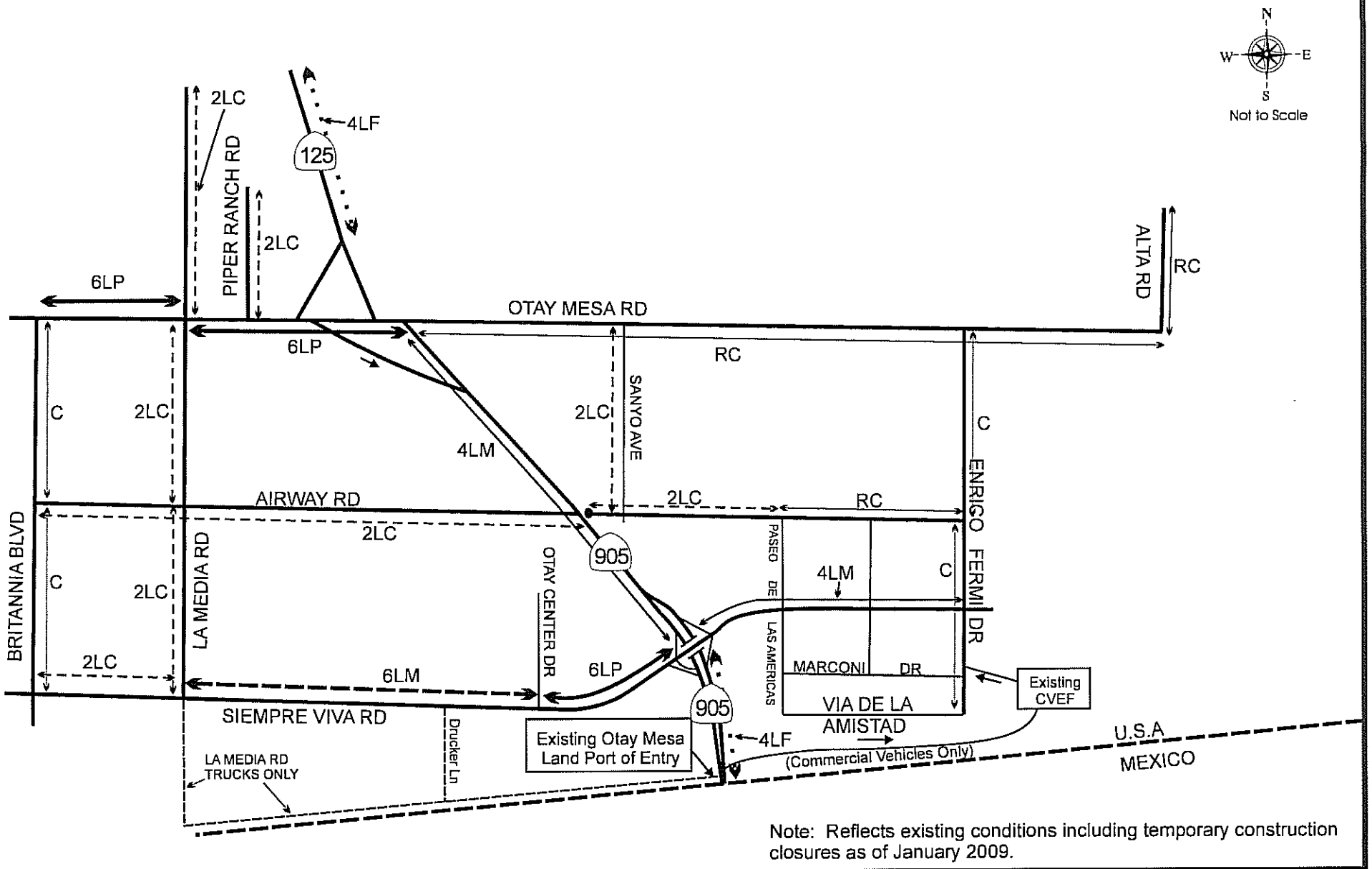
Figures 3-3 through 3-5 show existing traffic conditions. This information was obtained as follows:

- Where available, Average Daily Traffic conditions for study area street segments were determined through 24-hour counts conducted by VRPA Technologies in early 2009. In cases where roadway segment counts were unavailable, roadway segment ADT was estimated based peak hour intersection turning movement counts.

- AM and PM peak hour intersection turning movement counts were conducted by VRPA Technologies in early 2009.

- Existing ADT values along State Highways were obtained from Caltrans state highway information, prepared by the Caltrans Traffic and Vehicle Data Systems Unit and published on the Caltrans website at http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2007all.htm. The most recent ADT values were from 2007. This data were supplemented by border crossing traffic counts conducted in 2007 during the SR-11/Otay Mesa East LPOE Tier I traffic analysis. Consideration was given to updating these counts for 2009 conditions. However, recent counts conducted in the San Diego region in the past three years have showed unusual levels of variability due to gasoline price fluctuations and the state of the economy. Because of these factors, the 2007 data were considered to provide a reasonable approximation of 2009 traffic conditions.

Capacity analysis of existing roadway segments is shown in Tables 3-1 through 3-3.



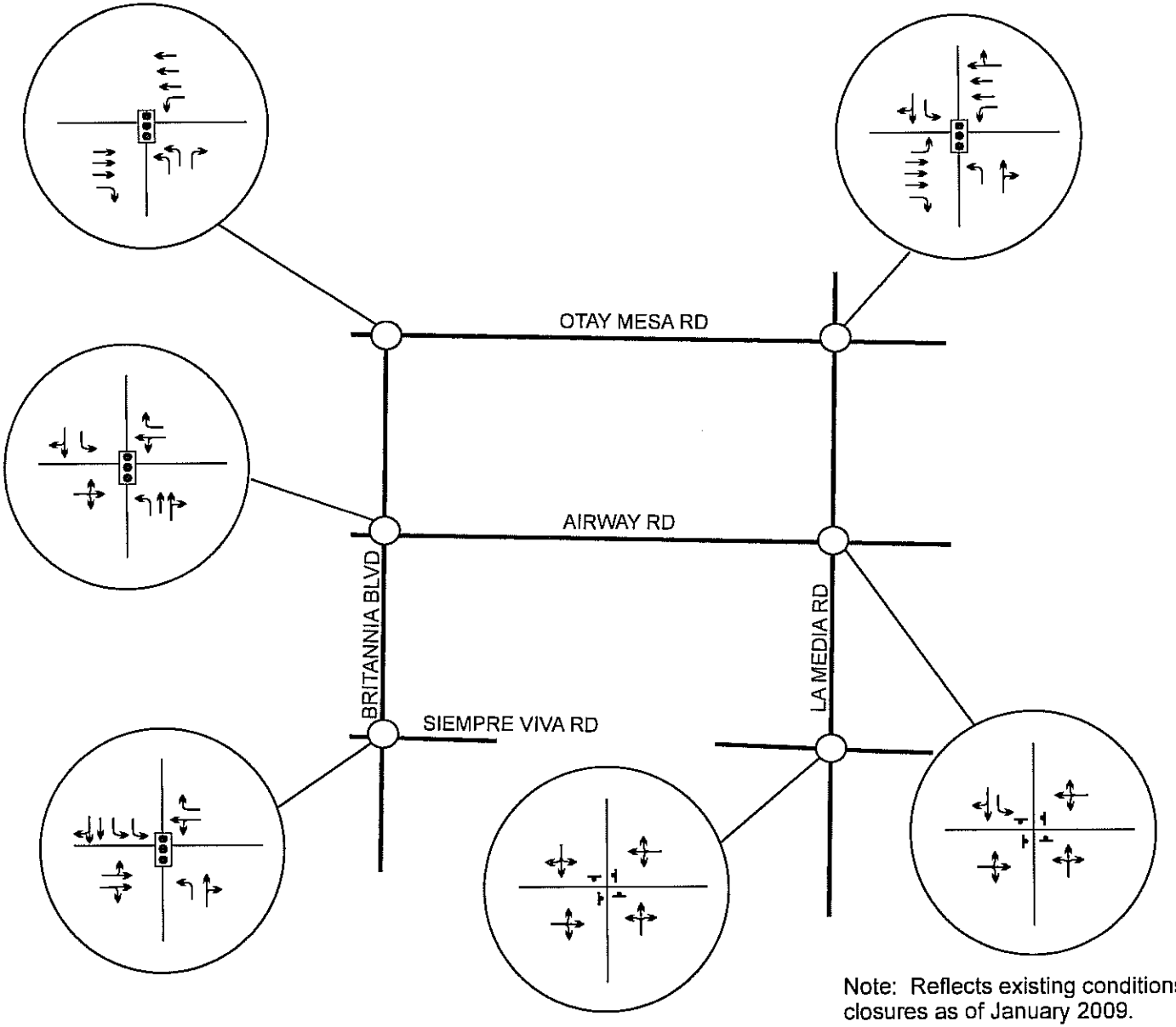
Note: Reflects existing conditions including temporary construction closures as of January 2009.

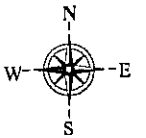
Existing (2009) Roadway Segment Classifications

Legend

- Collector (C)
- Rural Collector (RC)
- 2 Lane Collector (2LC)
- 4 Lane Major (4LM)
- 6 Lane Major (6LM)
- 6 Lane Prime (6LP)
- 4 Lane Freeway (4LF)
- CVEF Commercial Vehicle Enforcement Facility

Figure 3-1





Not to Scale

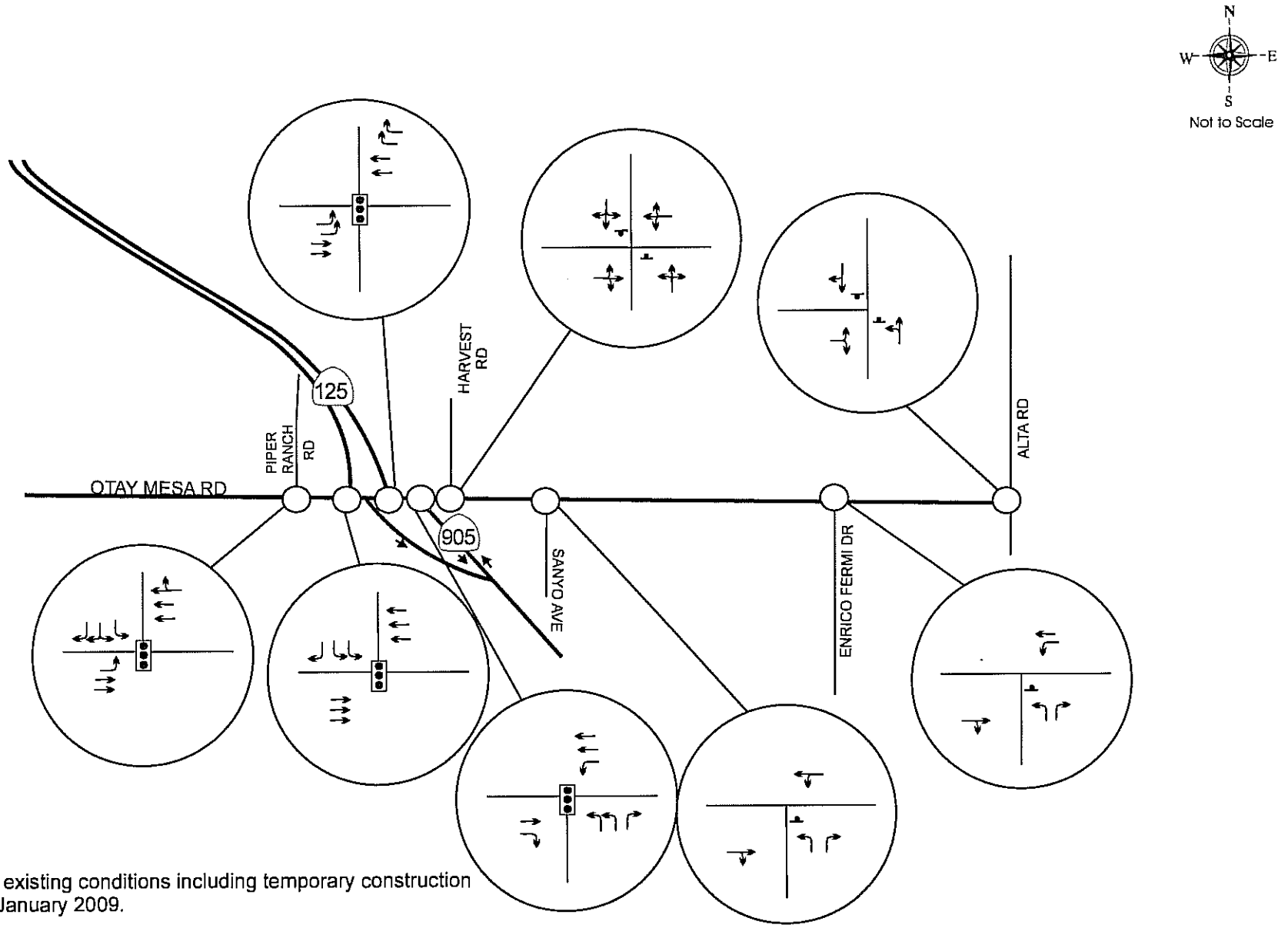
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) Intersection Lane Geometry

Legend

Direction of Travel Stop Sign Signal

Figure 3-2a



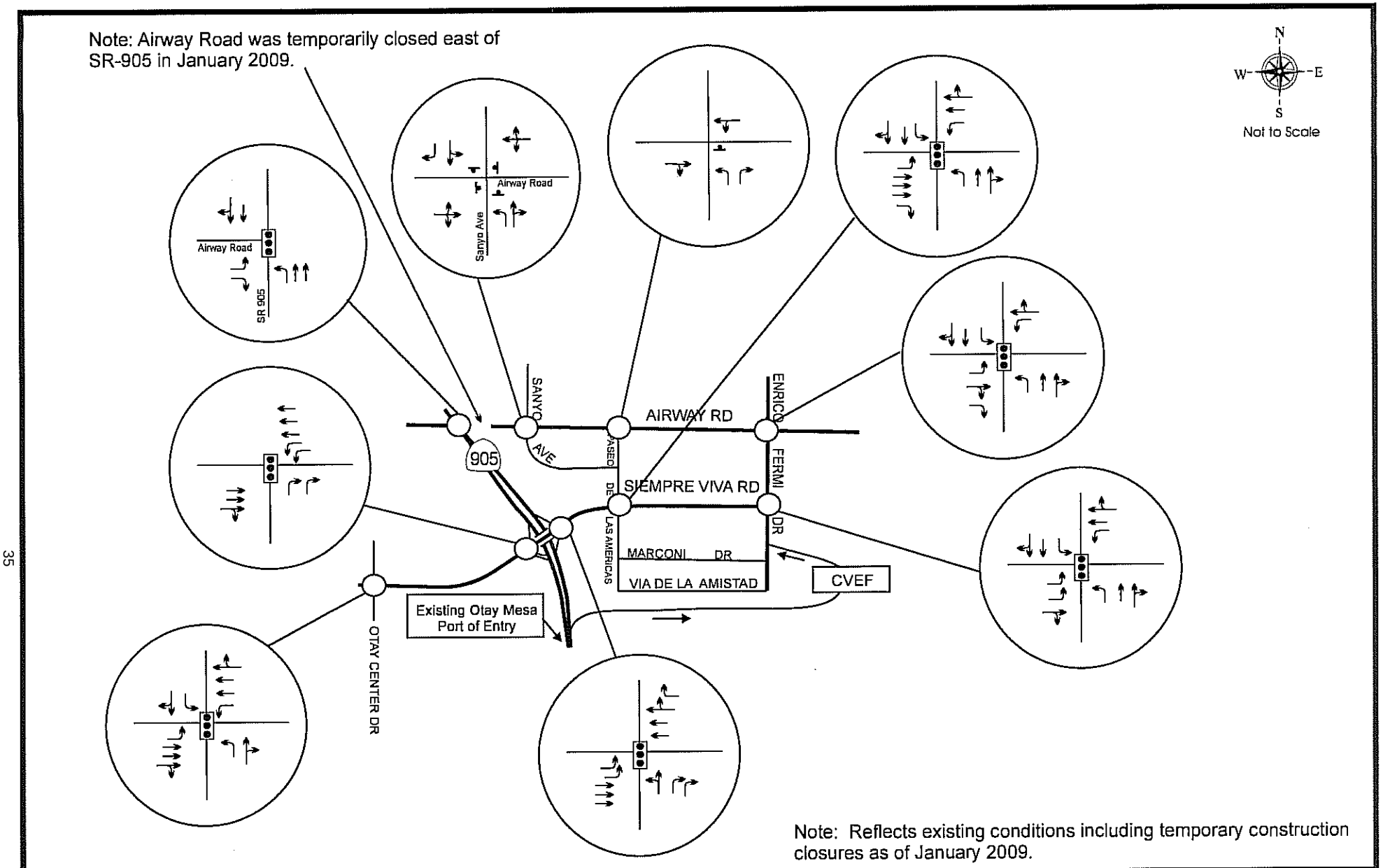
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) Intersection Lane Geometry

Legend

Direction of Travel Stop Sign Signal

Figure 3-2b

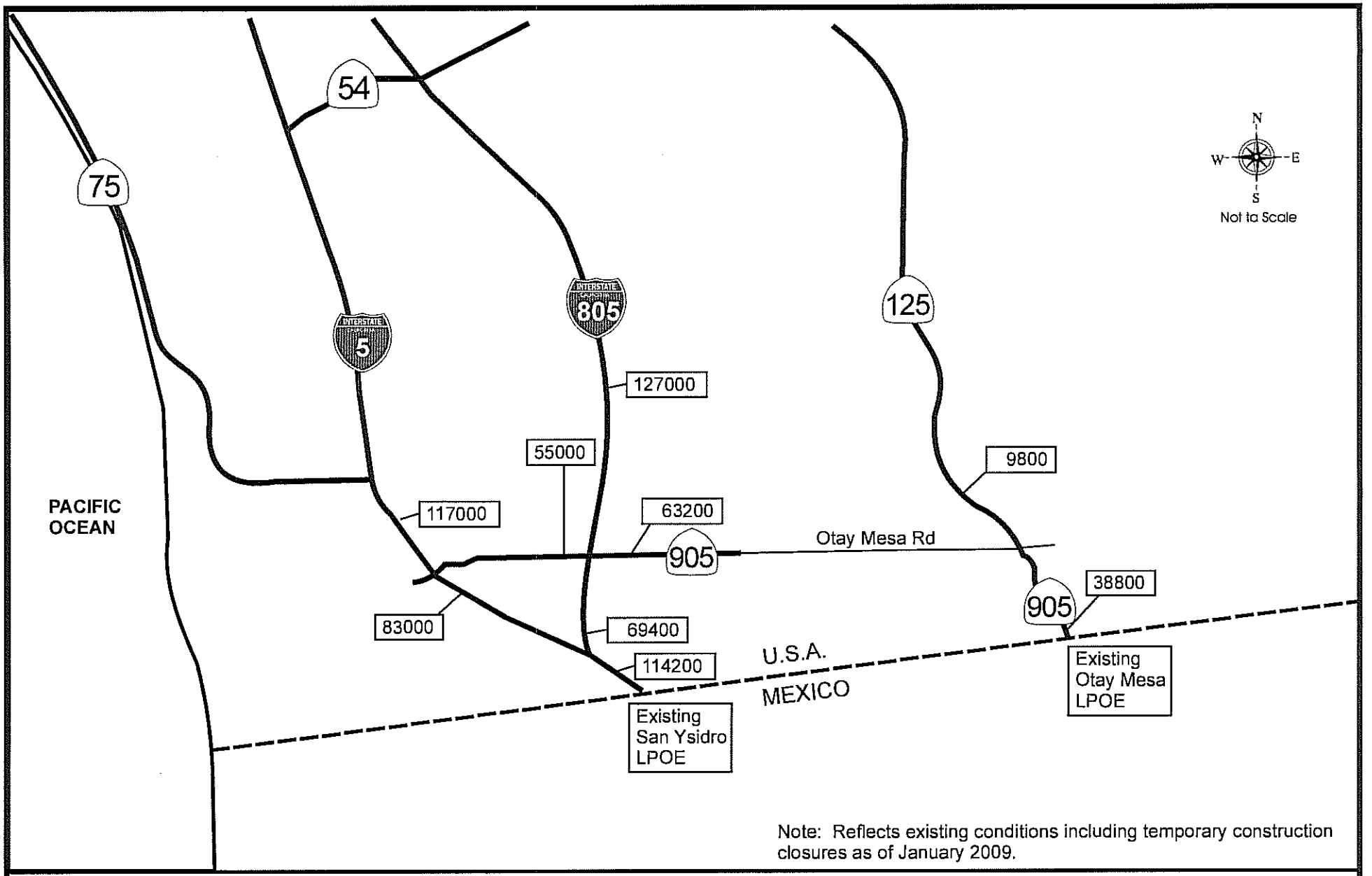


Existing (2009) Intersection Lane Geometry

Legend

Direction of Travel | Stop Sign | Signal | CVEF Commercial Vehicle Enforcement Facility

Figure 3-2c



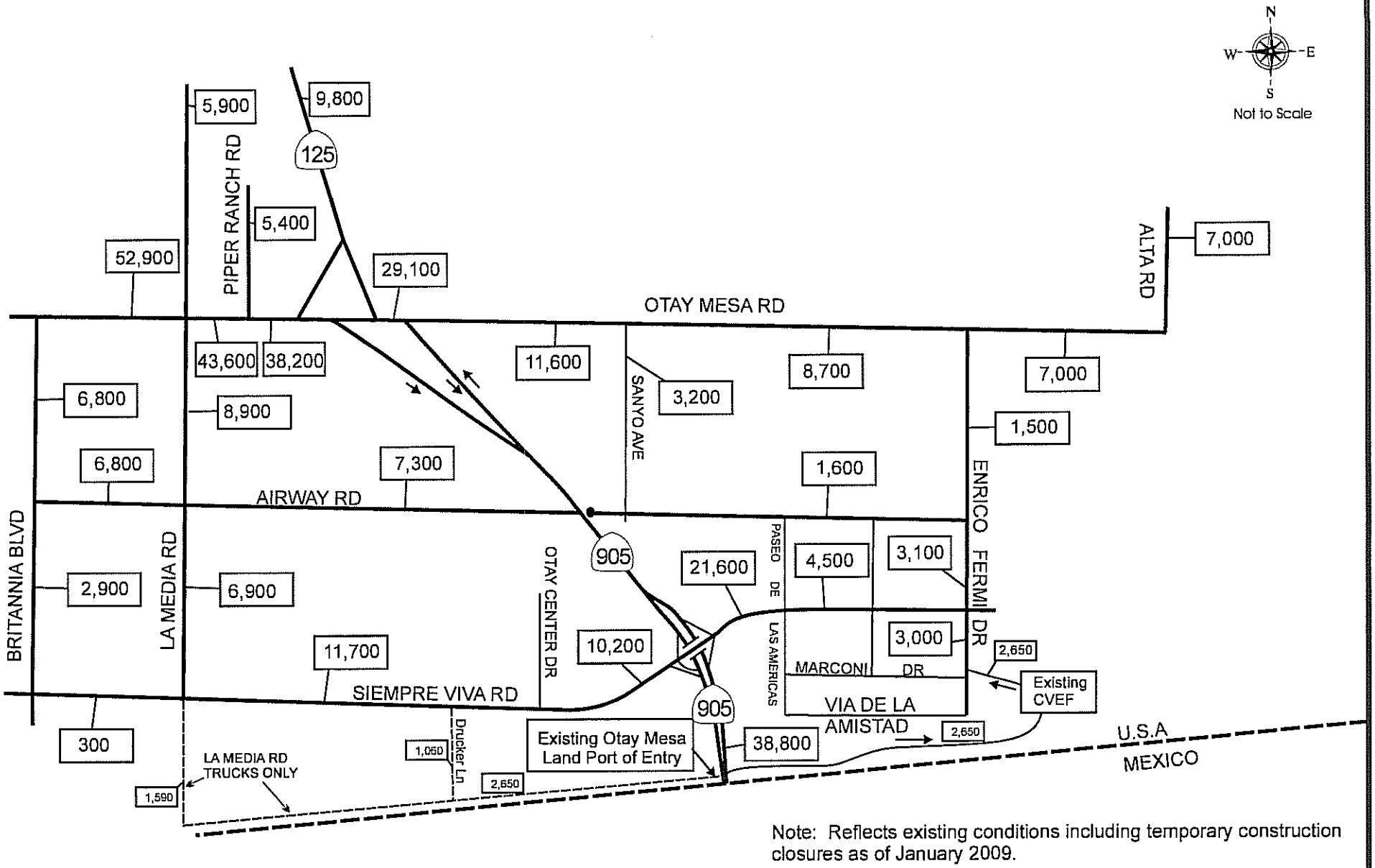
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) Average Daily Traffic

Legend

Existing Highway
Existing City Roadway
XXXXX Average Daily Traffic

Figure 3-3a



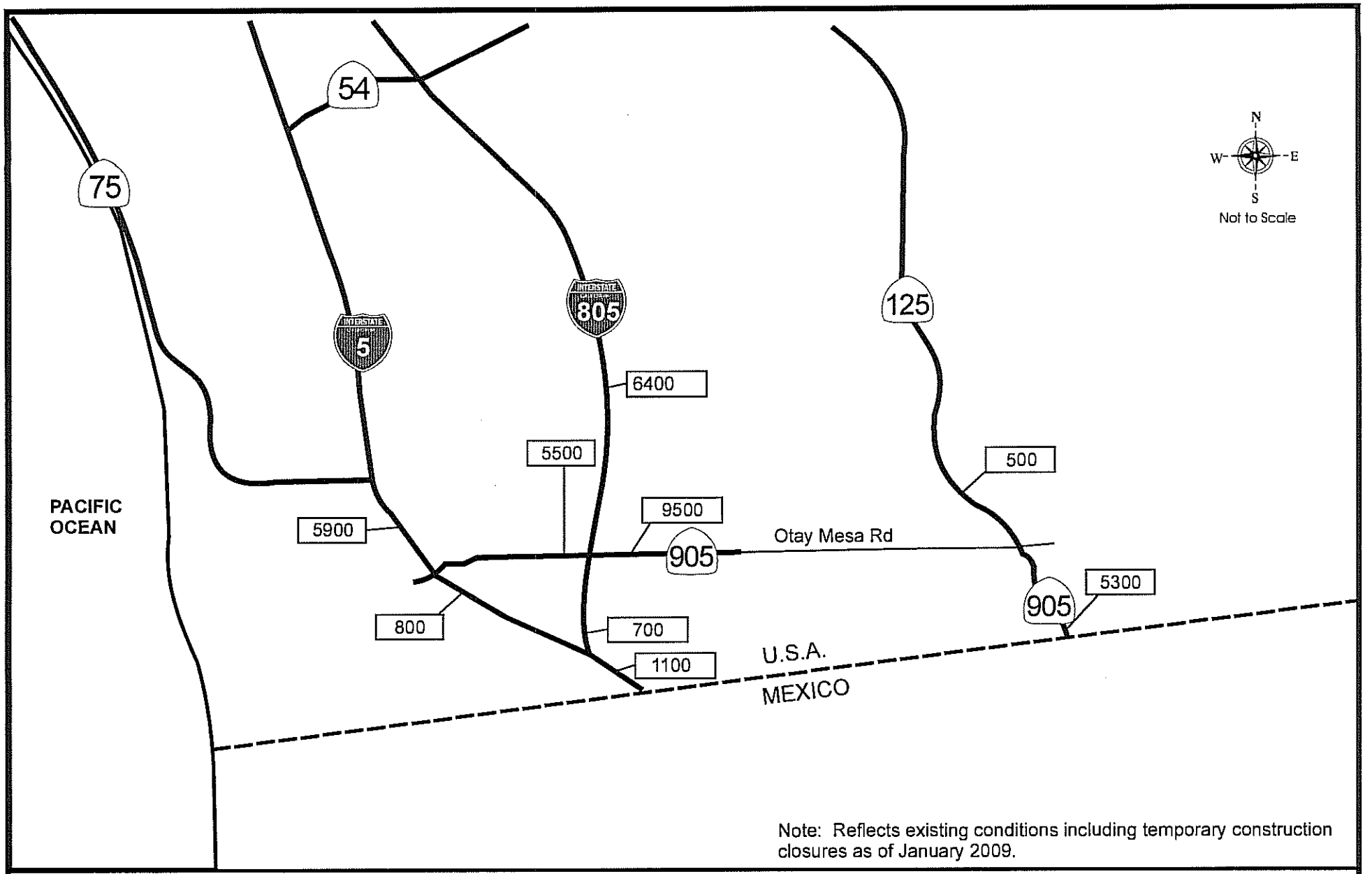
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) Average Daily Traffic

Legend

Existing Freeway
Existing County/City Roadway
XXXXX Average Daily Traffic

Figure 3-3b



Existing (2009) Daily Truck Trips

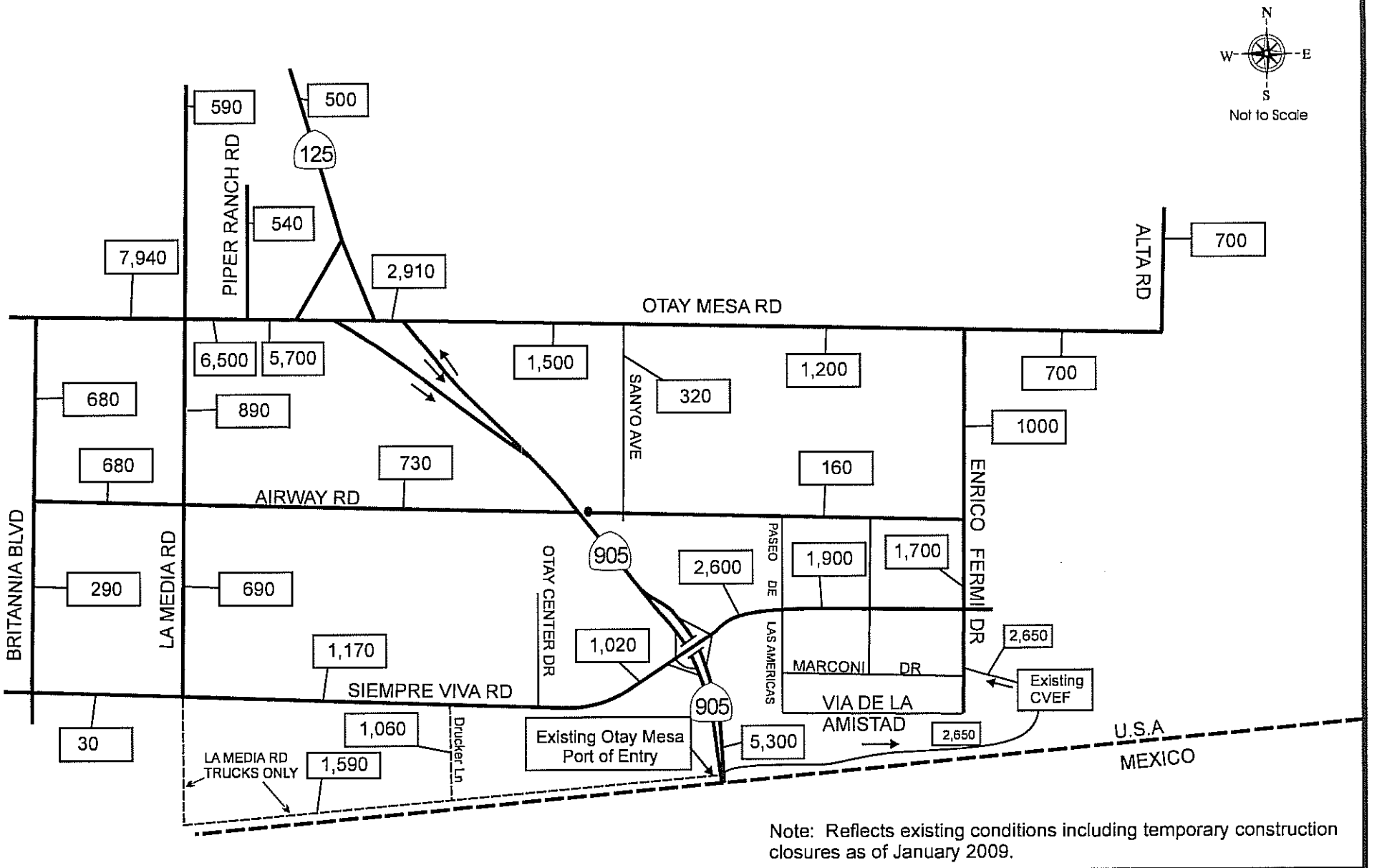
Legend

Existing Highway

Existing City Roadway

XXXXX Average Daily Traffic

Figure 3-4a



Note: Reflects existing conditions including temporary construction closures as of January 2009.

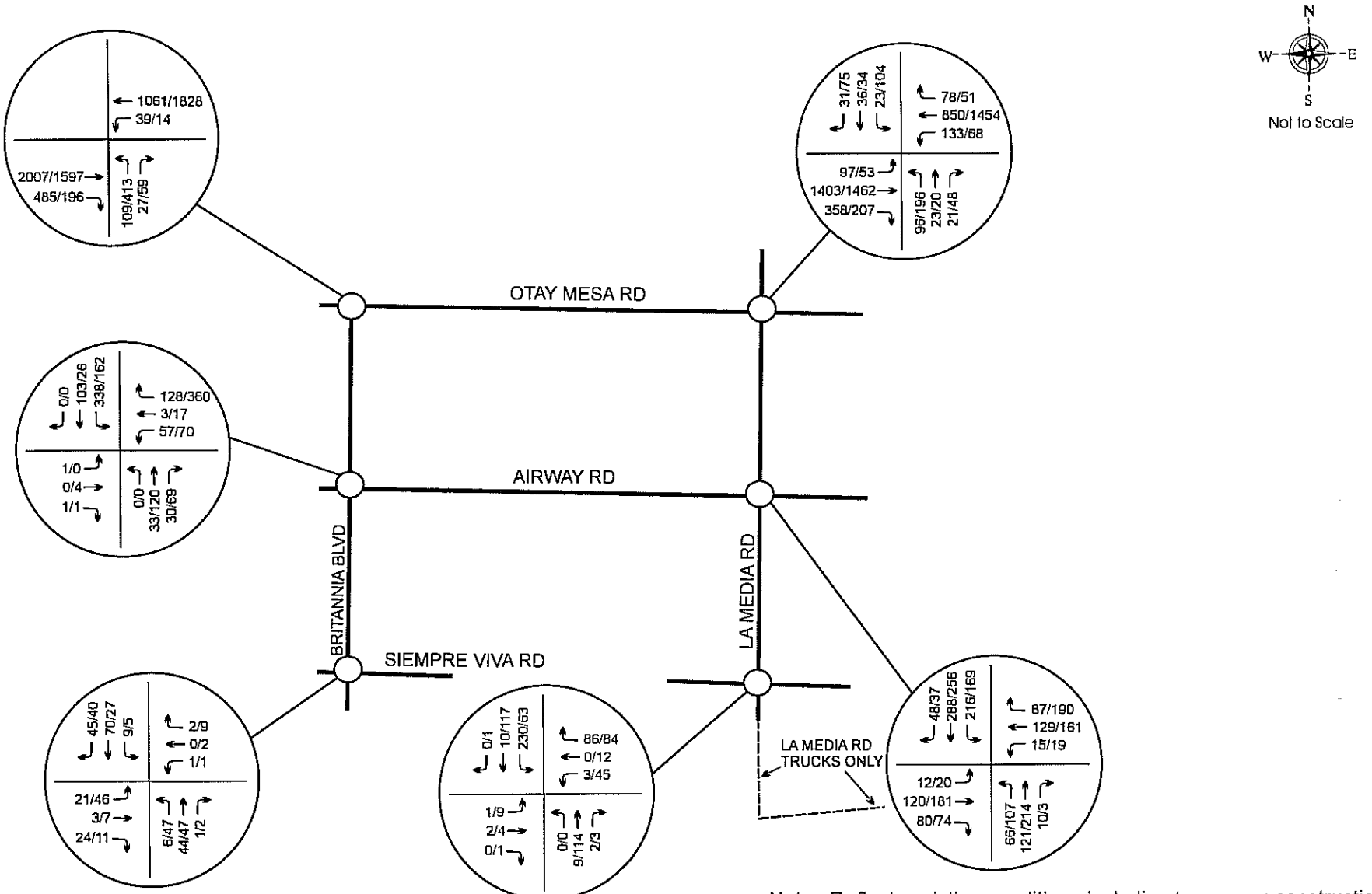
Existing (2009) Daily Truck Trips

Legend

Existing Freeway
Existing County/City Roadway
XXXXX Daily Truck Traffic

CVEF Commercial Vehicle Enforcement Facility

Figure 3-4b



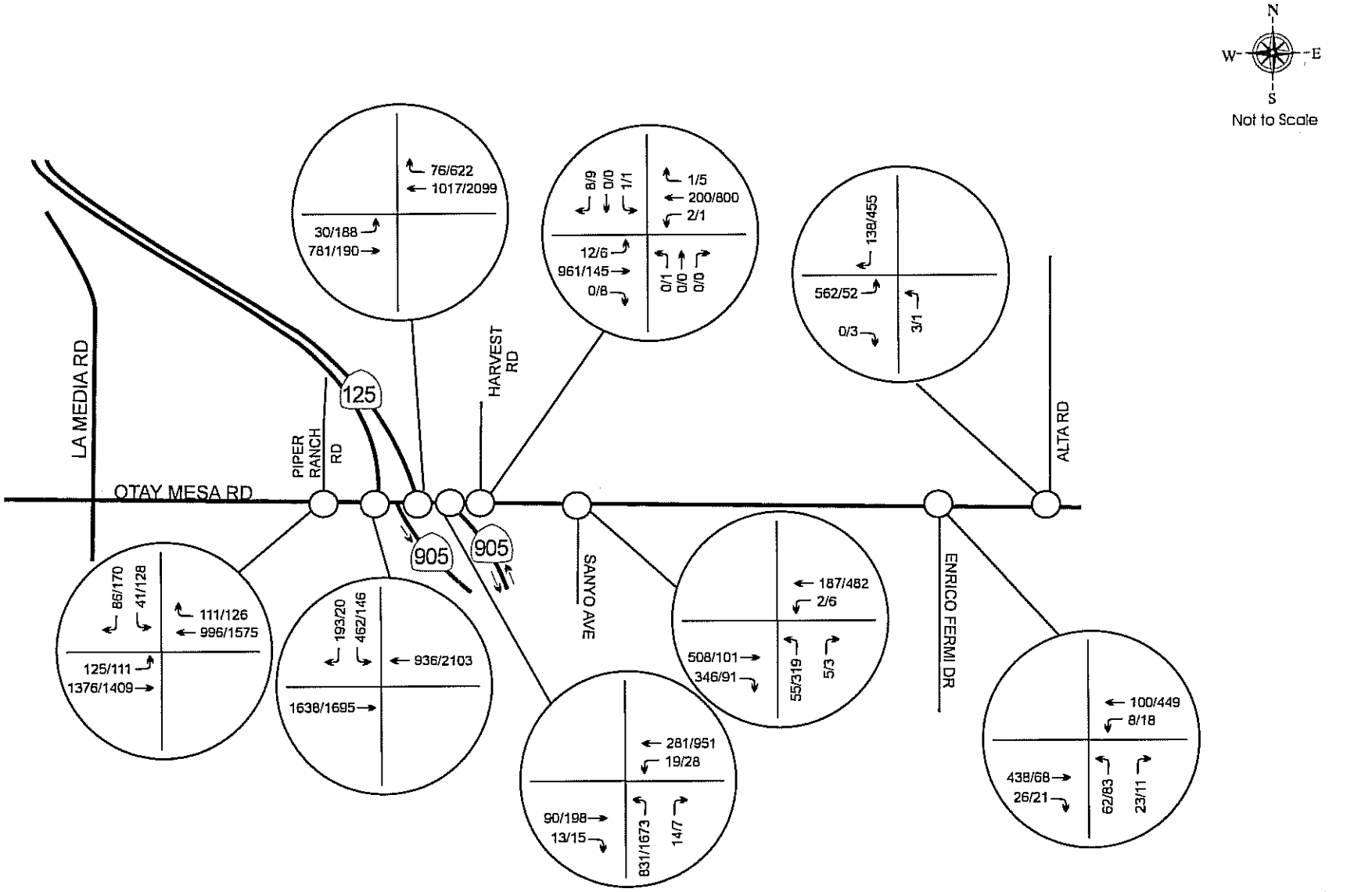
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) AM & PM Peak Hour Traffic - Intersections

Legend

XX/XX AM/PM Peak Hour Traffic

Figure 3-5a



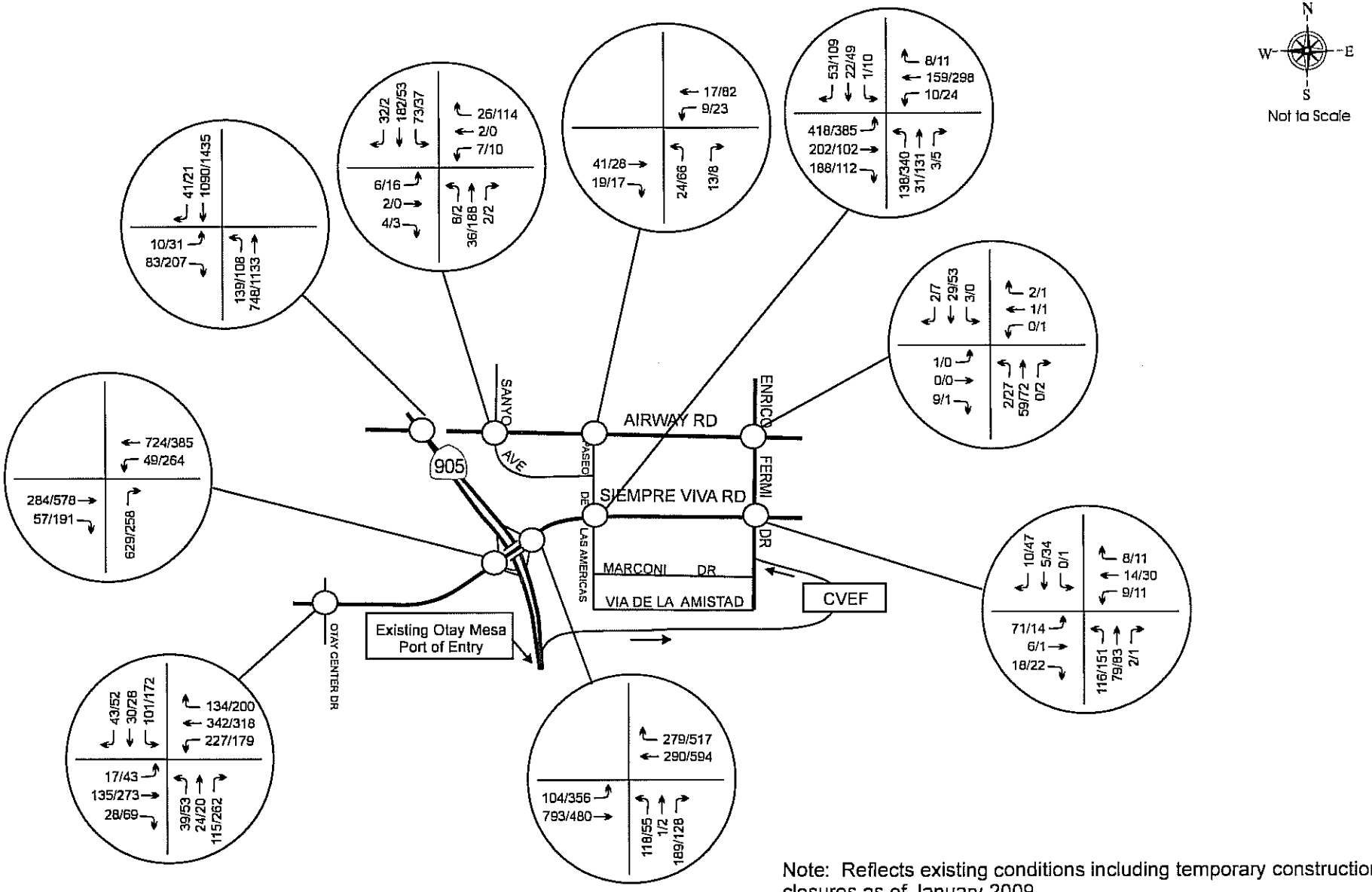
Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) AM & PM Peak Hour Traffic - Intersections

Legend

XX/XX AM/PM Peak Hour Traffic

Figure 3-5b



Note: Reflects existing conditions including temporary construction closures as of January 2009.

Existing (2009) AM & PM Peak Hour Traffic - Intersections

Legend

XX/XX AM/PM Peak Hour Traffic

CVEF Commercial Vehicle Enforcement Facility

Figure 3-5c

Table 3-1
EXISTING (2009)
FREEWAY SEGMENT CAPACITY ANALYSIS

ROUTE	LIMITS	2009 TWO-WAY ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2009 V/C (1)	2009 LOS
SR-125	North of Otay Mesa Rd	9,800	9.00%	0.55	485	4	2	2,000	4,000	5%	0.13	A
SR-905	I-5 to I-805	55,000	9.00%	0.55	2,723	4	2	2,000	4,000	15%	0.78	C
	I-805 to Otay Mesa Rd	63,200	9.00%	0.55	3,128	4	2	2,000	4,000	15%	0.90	D
	Siempre Viva Rd to International Border (2)	38,800	9.00%	0.55	1,921	4	2	2,000	4,000	15%	0.55	B
I-5	North of SR-905	117,000	9.00%	0.55	5,792	8	4	2,000	8,000	10%	0.80	D
	SR -905 to I-805	83,000	9.00%	0.55	4,109	8	4	2,000	8,000	1%	0.52	B
	Via de San Ysidro to International Border (2)	114,200	9.00%	0.55	5,653	12	6	2,000	12,000	1%	0.48	B
I-805	North of SR-905	127,000	9.00%	0.55	6,287	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-5	69,400	9.00%	0.55	3,435	8	4	2,000	8,000	1%	0.43	B

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 3-2
EXISTING (2009)
ROADWAY SEGMENT CAPACITY ANALYSIS

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX TWO-WAY ADT (2)	2009 TWO-WAY ADT	2009 V/C	2009 LOS
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	52,900	0.88	D
	La Media Rd to Piper Ranch Rd	City	6 Lane Major	50,000	43,600	0.87	D
	Piper Ranch Rd to SR-125	City	6 Lane Major	50,000	38,200	0.76	C
	SR-125 to Sanyo Ave	County	Rural Collector	16,200	11,600	0.72	E
	Sanyo Ave to Enrico Fermi Dr	County	Rural Collector	16,200	8,700	0.54	D
	Enrico Fermi Dr to Alta Rd	County	Rural Collector	16,200	7,000	0.43	C
Airway Rd	Britannia Blvd to La Media Rd	City	2 Lane Collector	15,000	6,800	0.45	B
	La Media Rd to SR -905	City	2 Lane Collector	15,000	7,300	0.49	C
	SR-905 to Enrico Fermi Dr	County	Rural Collector	16,200	1,600	0.10	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	2 Lane Collector	15,000	300	0.02	A
	La Media Rd to Otay Center Dr	City	6 Lane Major	60,000	11,700	0.20	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,200	0.17	A
	SR-905 to Paseo De Las Americas	City	4 Lane Major	40,000	21,600	0.54	C
	Paseo De Las Americas to Enrico Fermi Dr	City	4 Lane Major	40,000	4,500	0.11	A
Britannia Blvd	Otay Mesa Rd to Airway Rd	City	Collector	34,200	6,800	0.20	B
	Airway Rd to Siempre Viva Rd	City	Collector	34,200	2,900	0.08	A
La Media Rd	North of Otay Mesa Rd	City	2 Lane Collector	15,000	5,900	0.39	B
	Otay Mesa Rd to Airway Rd	City	2 Lane Collector	15,000	8,900	0.59	C
	Airway Rd to Siempre Viva Rd	City	2 Lane Collector	15,000	6,900	0.46	B
Piper Ranch Rd	North of Otay Mesa Rd	City	2 Lane Collector	15,000	5,400	0.36	B
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	2 Lane Collector	15,000	3,200	0.21	A
Enrico Fermi Dr	Otay Mesa Rd to Airway Rd	County	Collector	34,200	1,500	0.04	A
	Airway Rd to Siempre Viva Rd	County	Collector	34,200	3,100	0.09	A
	South of Siempre Viva Rd	County	Collector	34,200	3,000	0.09	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 3-3
Existing (2009)
Intersection Capacity Analysis

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Otay Mesa Rd and Britannia Blvd	B	14.6	B	11.5
Otay Mesa Rd and La Media Rd	C	26.9	D	44.4
Otay Mesa Rd and Piper Ranch Rd	B	15.1	B	10.4
Otay Mesa Rd and SR-125 SB Ramp	A	8.4	A	9.2
Otay Mesa Rd and SR-125 NB Ramp	A	0.6	B	10.3
Otay Mesa Rd and SR-905	B	11.6	C	32.5
Otay Mesa Rd and Harvest Rd (1)	B	12.0	C	24.3
Otay Mesa Rd and Sanyo Ave (1)	C	20.8	E	48.7
Otay Mesa Rd and Enrico Fermi Dr (1)	C	15.2	C	15.0
Otay Mesa Rd and Alta Rd (1)	E	44.4	B	12.9
Airway Rd and Britannia Blvd	C	22.3	B	13.7
Airway Rd and La Media Rd	C	16.2	E	39.2
Airway Rd and SR-905	B	14.0	C	34.4
Airway Rd and Sanyo Ave	A	8.6	A	8.4
Airway Rd and Paseo De Las Americas (1)	A	9.1	A	10.0
Airway Rd and Enrico Fermi Dr	A	6.3	A	6.3
Siempre Viva Rd and Britannia Blvd	A	8.3	B	12.8
Siempre Viva Rd and La Media Rd (1)	A	9.4	A	9.4
Siempre Viva Rd and Otay Center Dr	C	27.1	C	21.8
Siempre Viva Rd and SR-905 SB Ramps	A	2.3	A	6.6
Siempre Viva Rd and SR-905 NB Ramps	B	10.6	B	13.2
Siempre Viva Rd and Paseo De Las Americas	E	72.2	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	B	17.3	B	15.6

Notes:

1 – Unsignalized two-way stop controlled intersection. Level of service and delay are shown for worst movement only

4.0 OPENING YEAR (2015) CONDITIONS

A traffic analysis was conducted to document expected traffic conditions in 2015, the expected opening day of the SR-11/Otay Mesa East Land POE facility. Opening year conditions for roadways in the study area (other than SR-11) were based on the San Diego Association of Governments (SANDAG) regional transportation model for 2015 conditions. Roadway segment assumptions are shown in Figure 4-1.

All of the alternatives and design variations analysis described previously were analyzed for opening day conditions. Expected lane geometry, traffic forecasts and operating conditions for opening day conditions is documented in various figures and tables as follows.

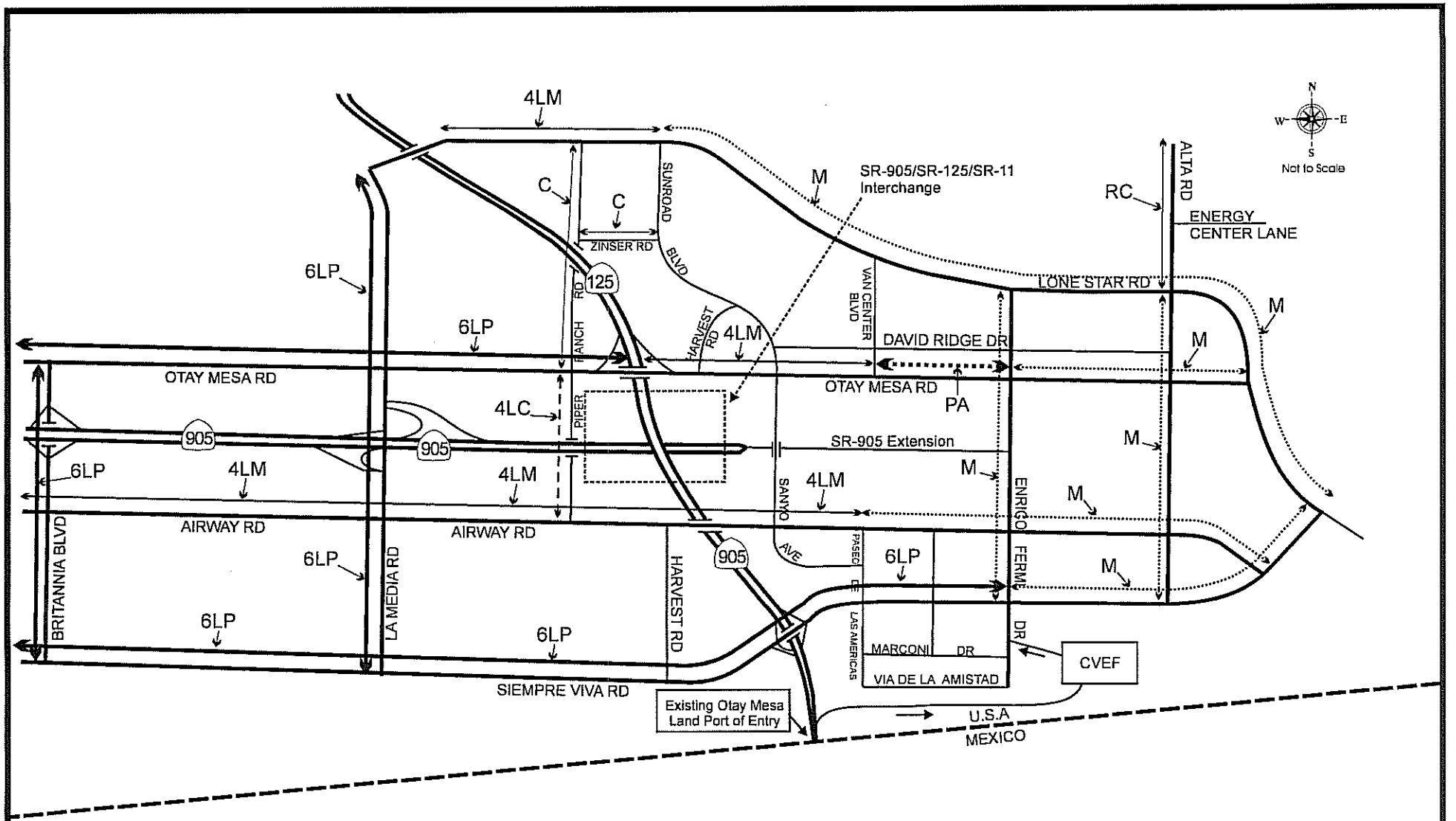
- No Build Alternative: Figures 4-2 through 4-5 and Tables 4-1 through 4-3
- Two Interchange Alternative: Figures 4-6 through 4-10 and Tables 4-4 through 4-7
- One Interchange Alternative: Figures 4-11 through 4-15 and Tables 4-8 through 4-11
- No Interchange Alternative: Figures 4-16 through 4-20 and Tables 4-12 through 4-15
- No Toll/Two Interchange Design Variation: Figures 4-21 through 4-25 and Tables 4-16 through 4-19
- No Toll/One Interchange Design Variation: Figures 4-26 through 4-30 and Tables 4-20 through 4-23
- No Toll/No Interchange Design Variation: Figures 4-31 through 4-35 and Tables 4-24 through 4-27
- SR-125 Connector/Two Interchange Design Variation: Figures 4-36 through 4-40 and Tables 4-28 through 4-31
- SR-125 Connector/One Interchange Design Variation: Figures 4-41 through 4-45 and Tables 4-32 through 4-35
- SR-125 Connector/No Interchange Design Variation: Figures 4-46 through 4-50 and Tables 4-36 through 4-39

- Full Interchange/Two Interchange Design Variation: Figures 4-51 through 4-55 and Tables 4-40 through 4-43

- Full Interchange/One Interchange Design Variation: Figures 4-56 through 4-60 and Tables 4-44 through 4-47

- Full Interchange/No Interchange Design Variation: Figures 4-61 through 4-65 and Tables 4-48 through 4-51

- SR-11/Siempre Viva Road Interchange Design Variation: Figures 4-66 through 4-70 and Tables 4-52 through 4-55

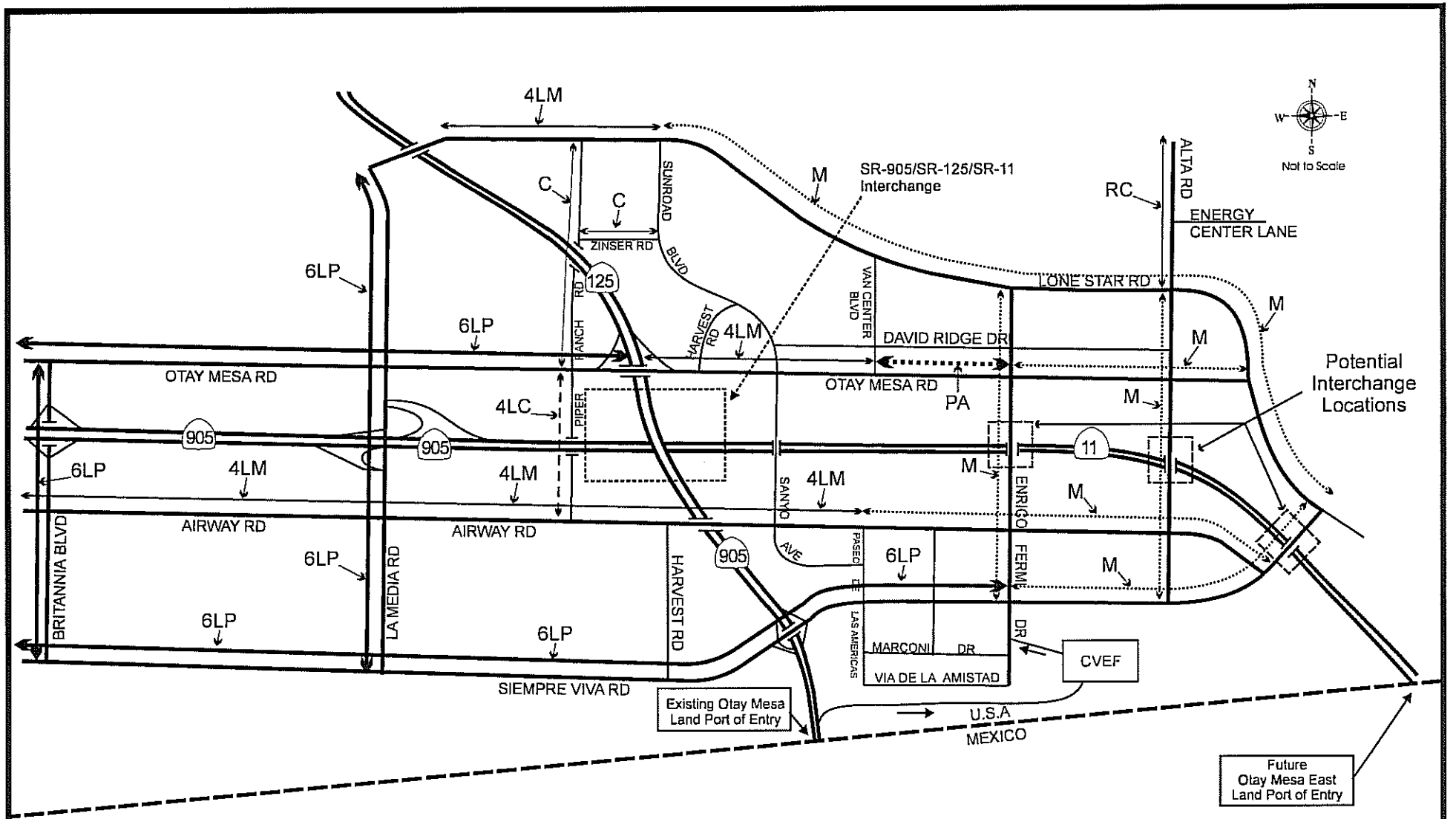


Opening Year (2015) Roadway Segment Classifications - No Build Alternative

Legend

- Collector (C)
- Rural Collector (RC)
- 4 Lane Collector (4LC)
- 4 Lane Major (4LM)
- Major Rd (M)
- Prime Arterial (PA)
- 6 Lane Prime (6LP)
- CVEF — Commercial Vehicle Enforcement Facility

Figure 4-1a

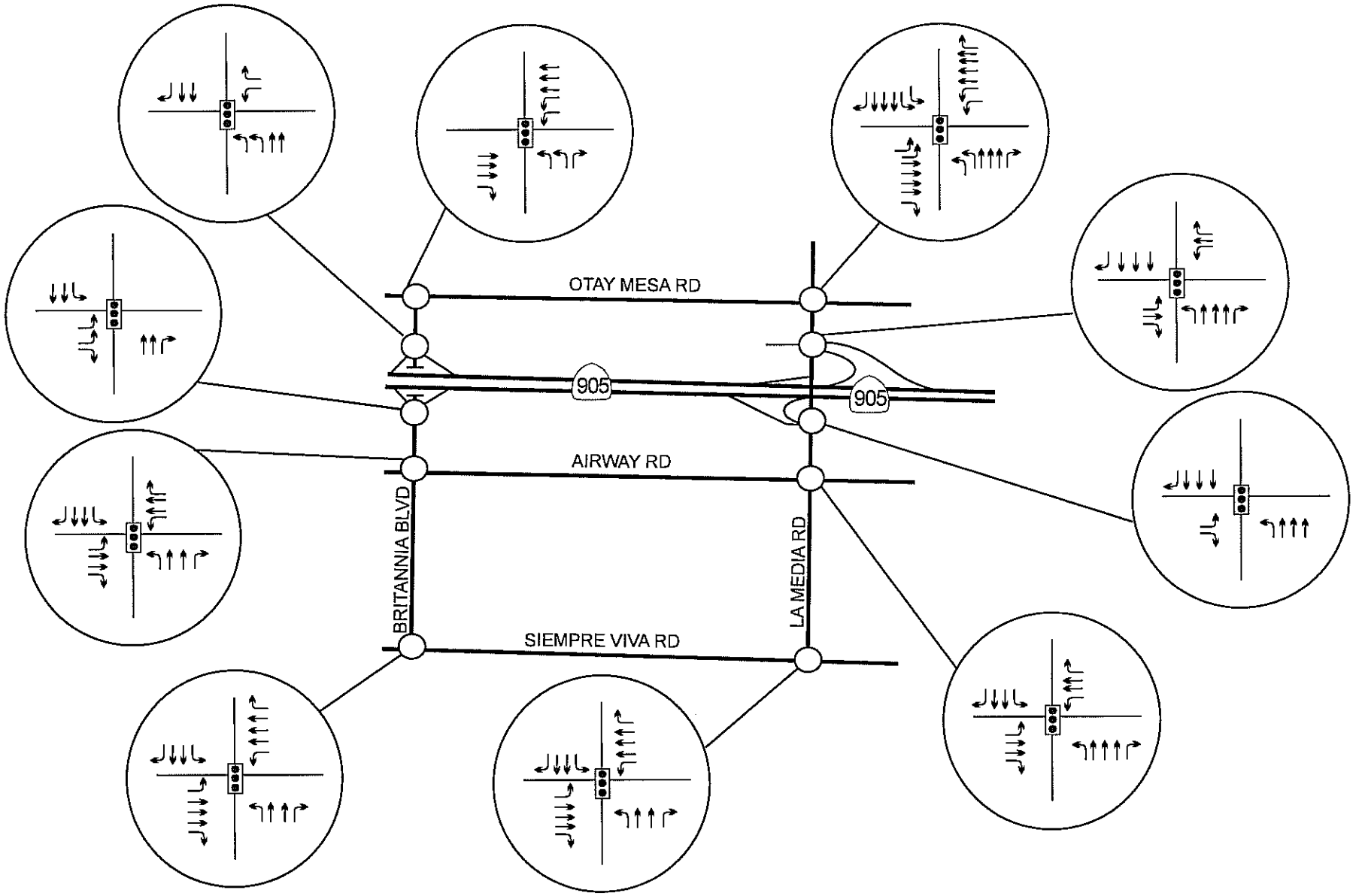


Opening Year (2015) Roadway Segment Classifications - Build Alternatives

Legend

- Collector (C)
- Rural Collector (RC)
- 4 Lane Collector (4LC)
- 4 Lane Major (4LM)
- Major Rd (M)
- Prime Arterial (PA)
- 6 Lane Prime (6LP)
- CVEF — Commercial Vehicle Enforcement Facility

Figure 4-1b



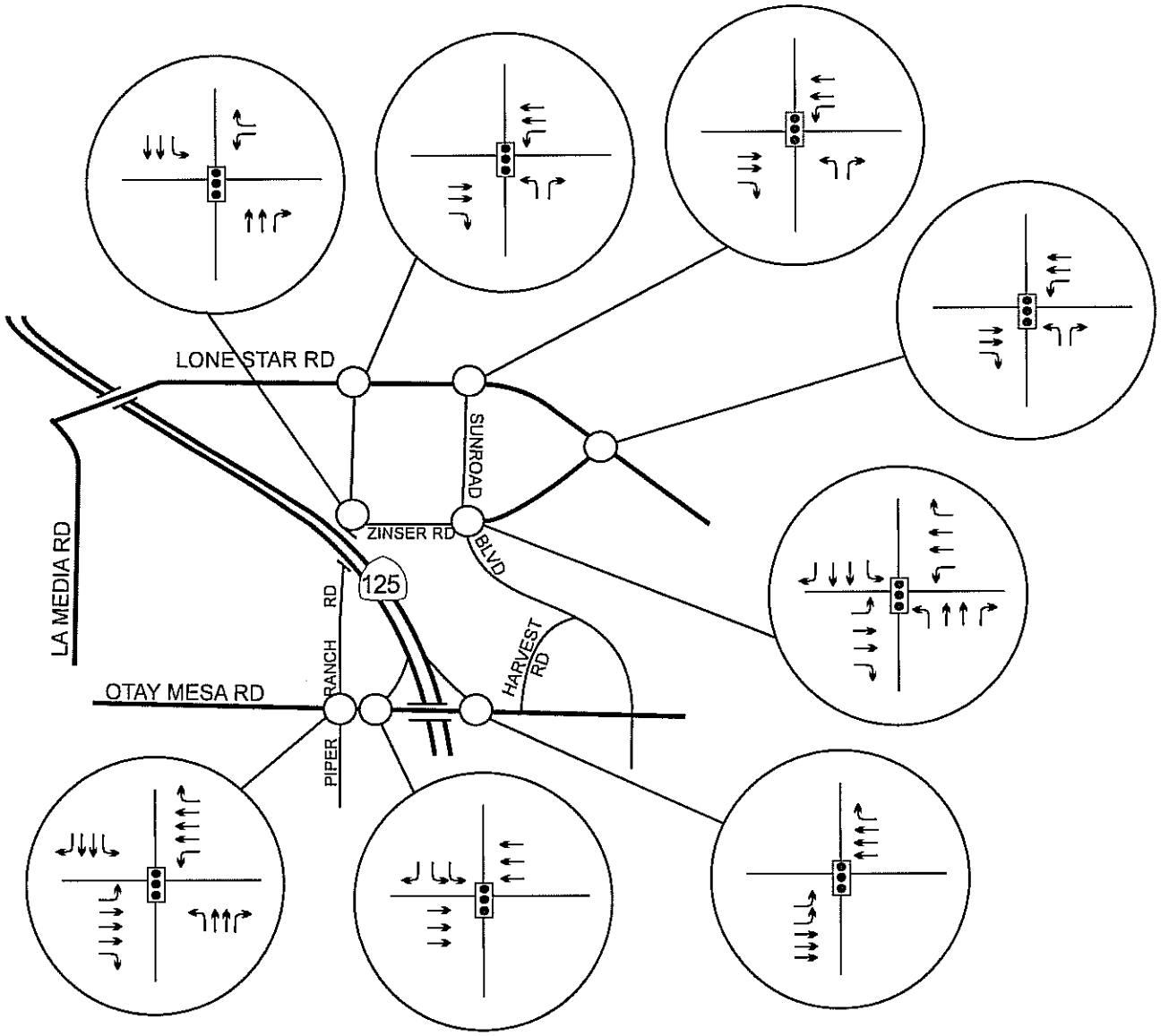
Opening Year (2015) Intersection Lane Geometry - No Build

Legend

Direction of Travel

Signal

Figure 4-2a



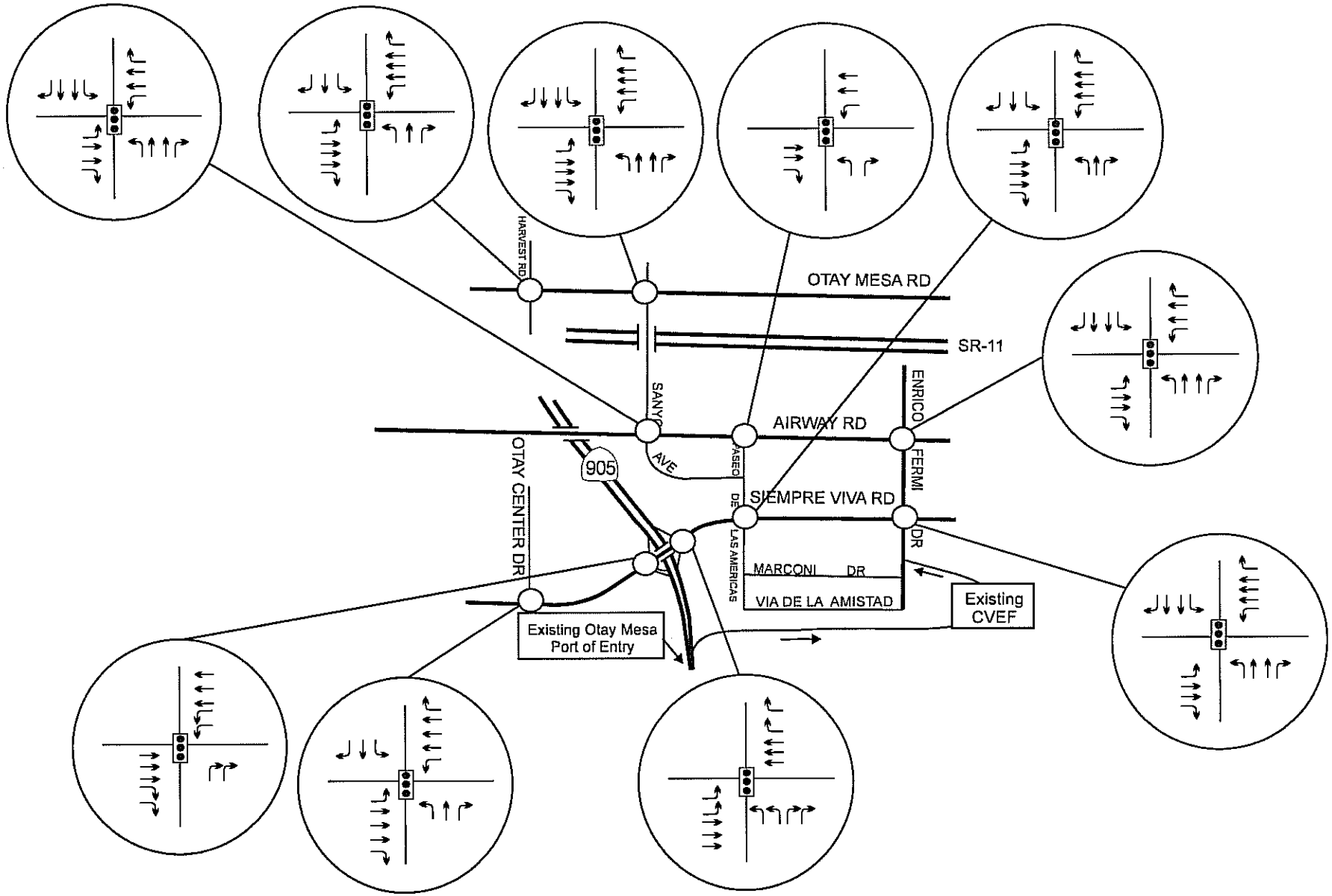
Opening Year (2015) Intersection Lane Geometry - No Build

Legend

Direction of Travel

Signal

Figure 4-2b



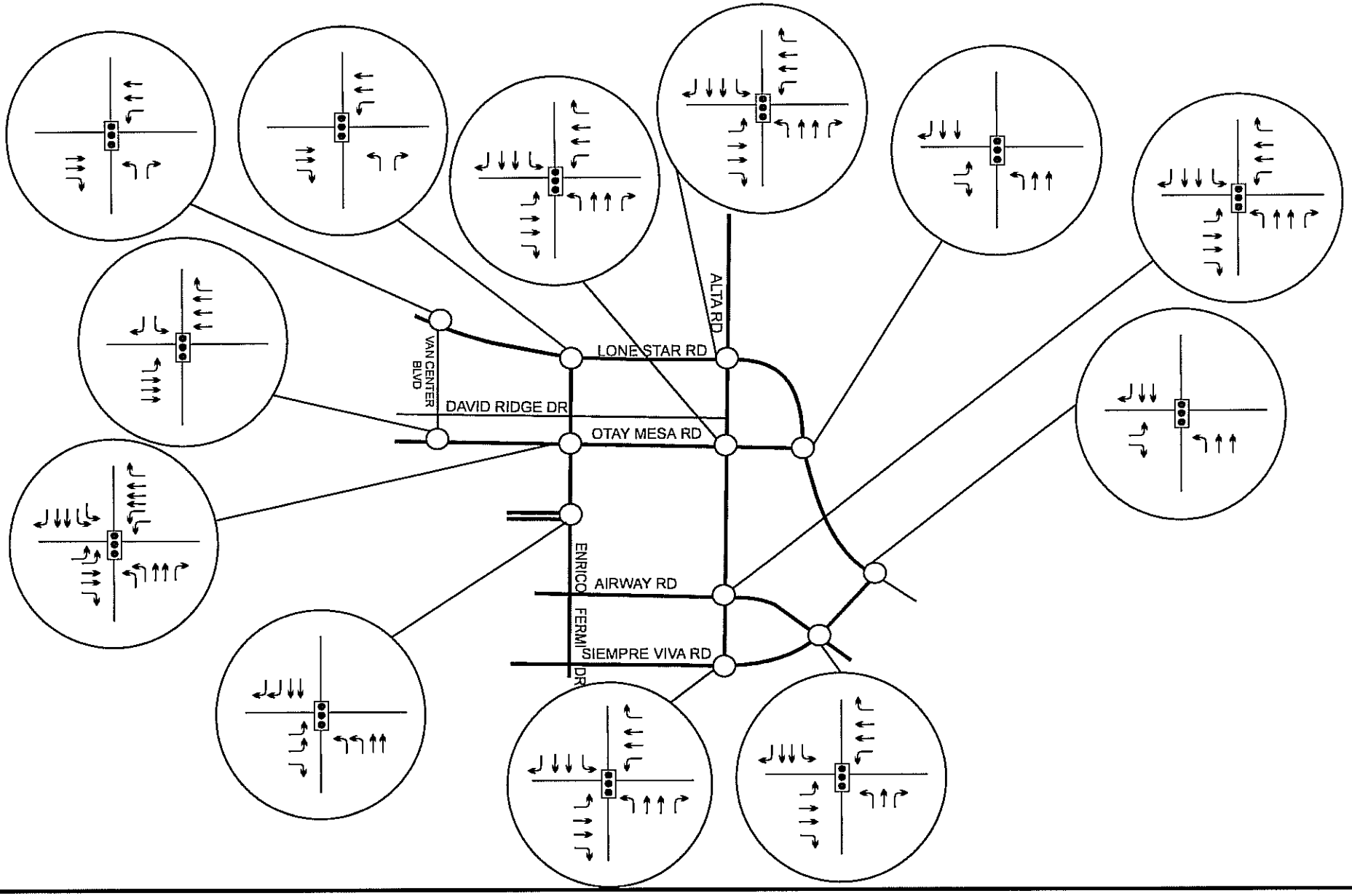
Opening Year (2015) Intersection Lane Geometry - No Build

Legend

Direction of Travel

Signal

Figure 4-2c



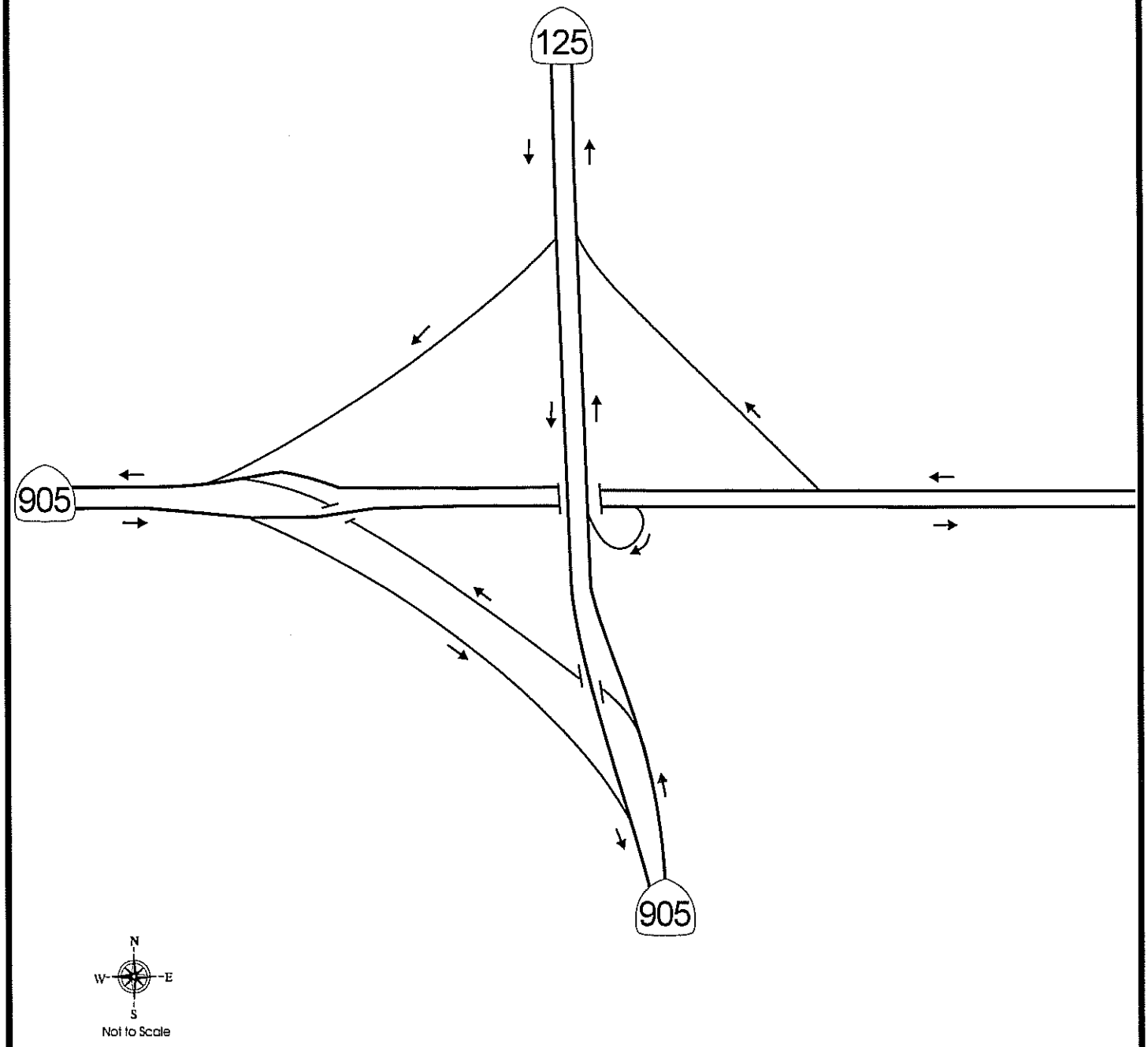
Opening Year (2015) Intersection Lane Geometry - No Build

Legend

Direction of Travel

Signal

Figure 4-2d



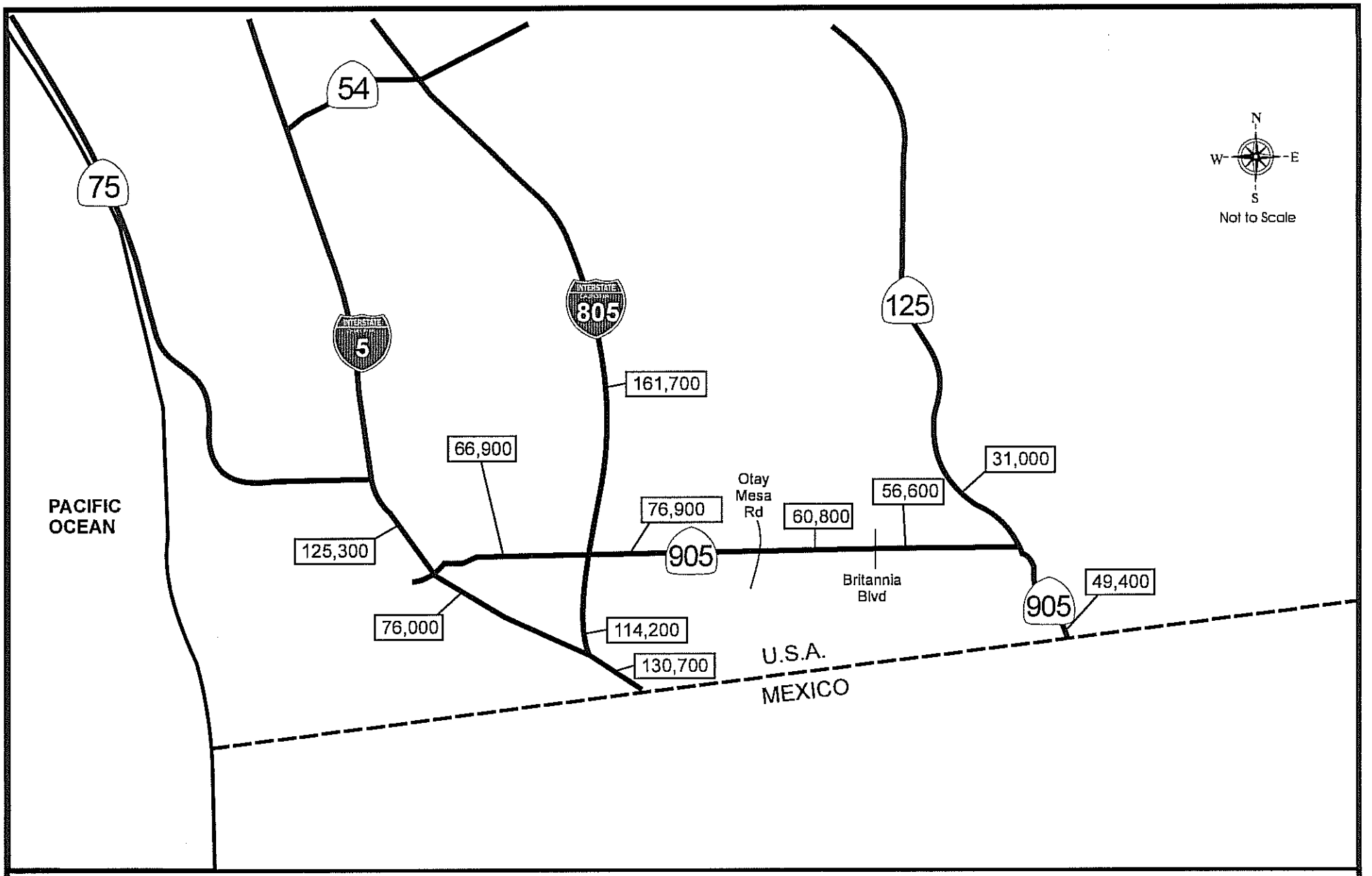
Opening Year (2015) Lane Geometry - No Build
SR-905 / SR-125 / SR-11 Interchange

Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed Ramp

Figure 4-2e



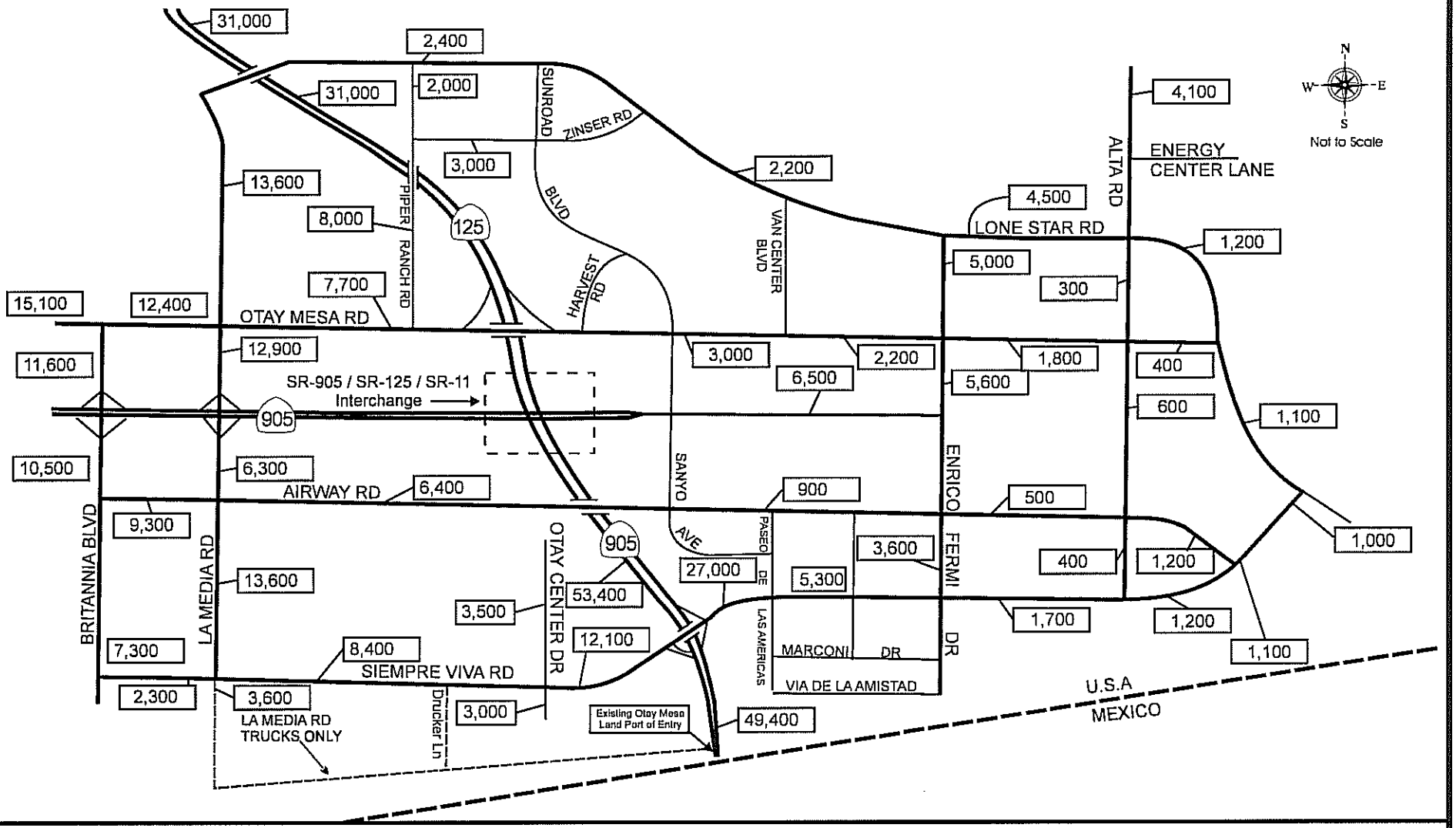
Opening Year (2015) Average Daily Traffic - No Build

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-3a



Opening Year (2015) Average Daily Traffic - No Build

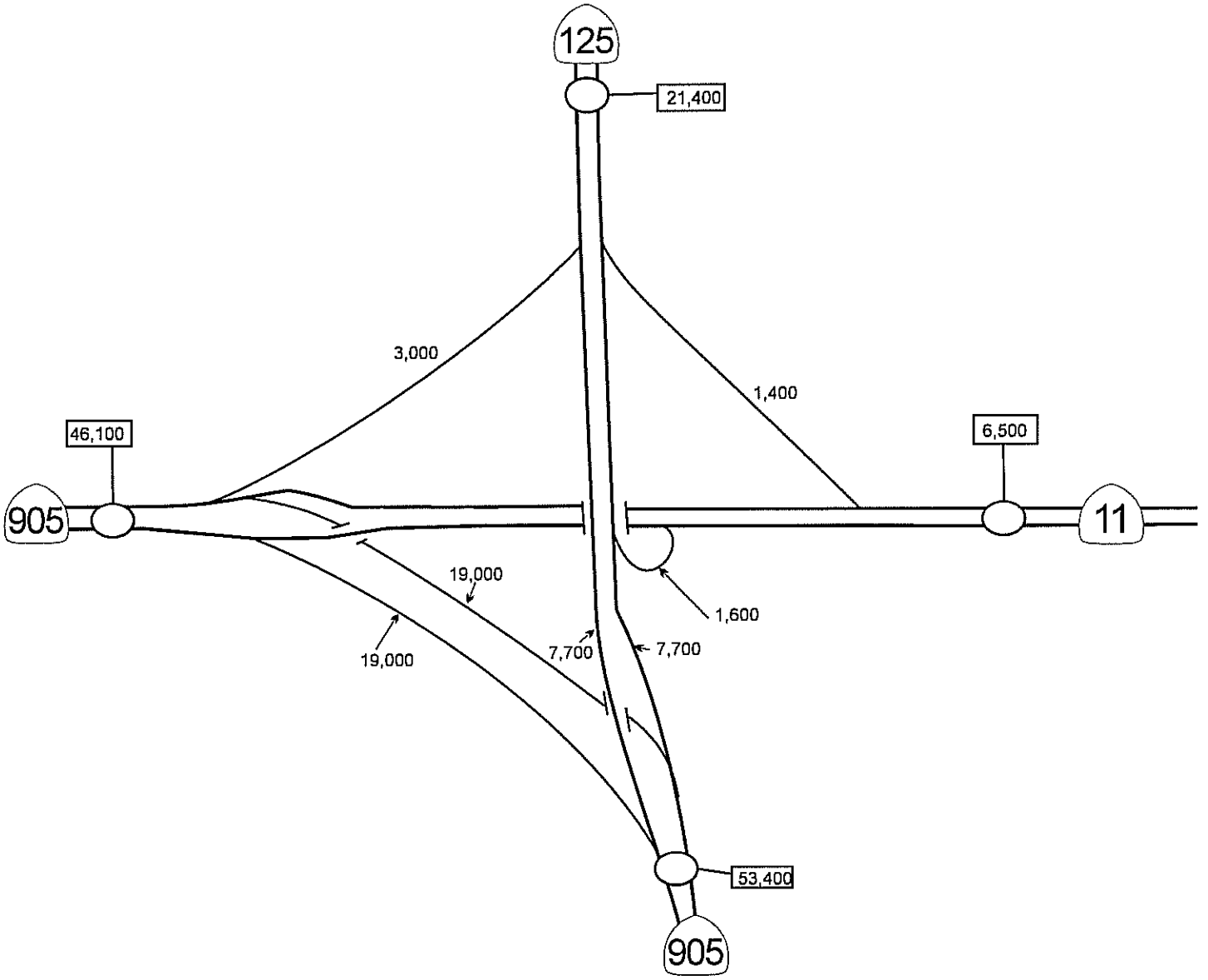
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-3b



Opening Year (2015) Average Daily Traffic - No Build

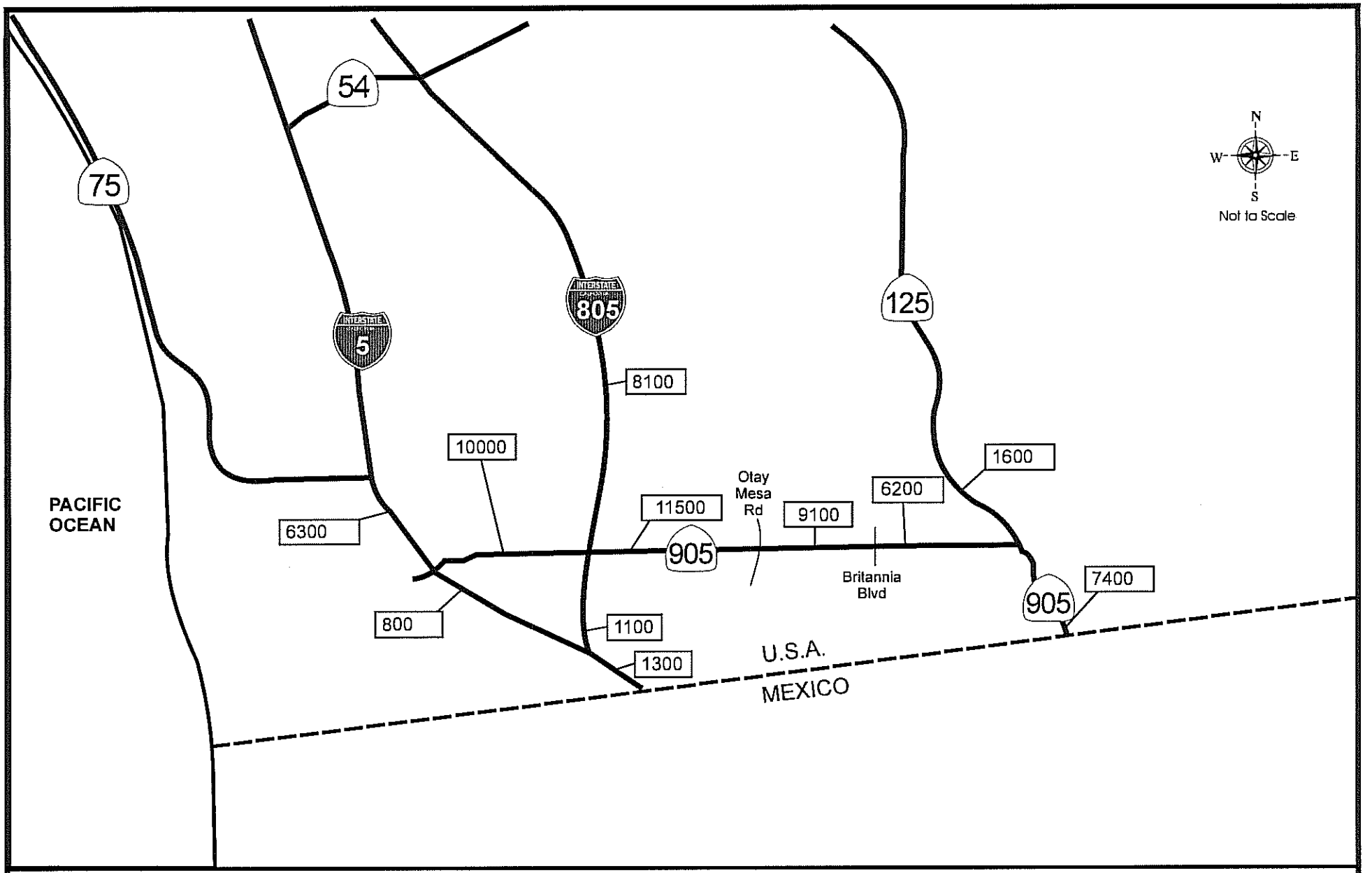
Legend

Existing or Proposed Freeway

Existing or Proposed Ramp

XXXXX Average Daily Traffic

Figure 4-3c



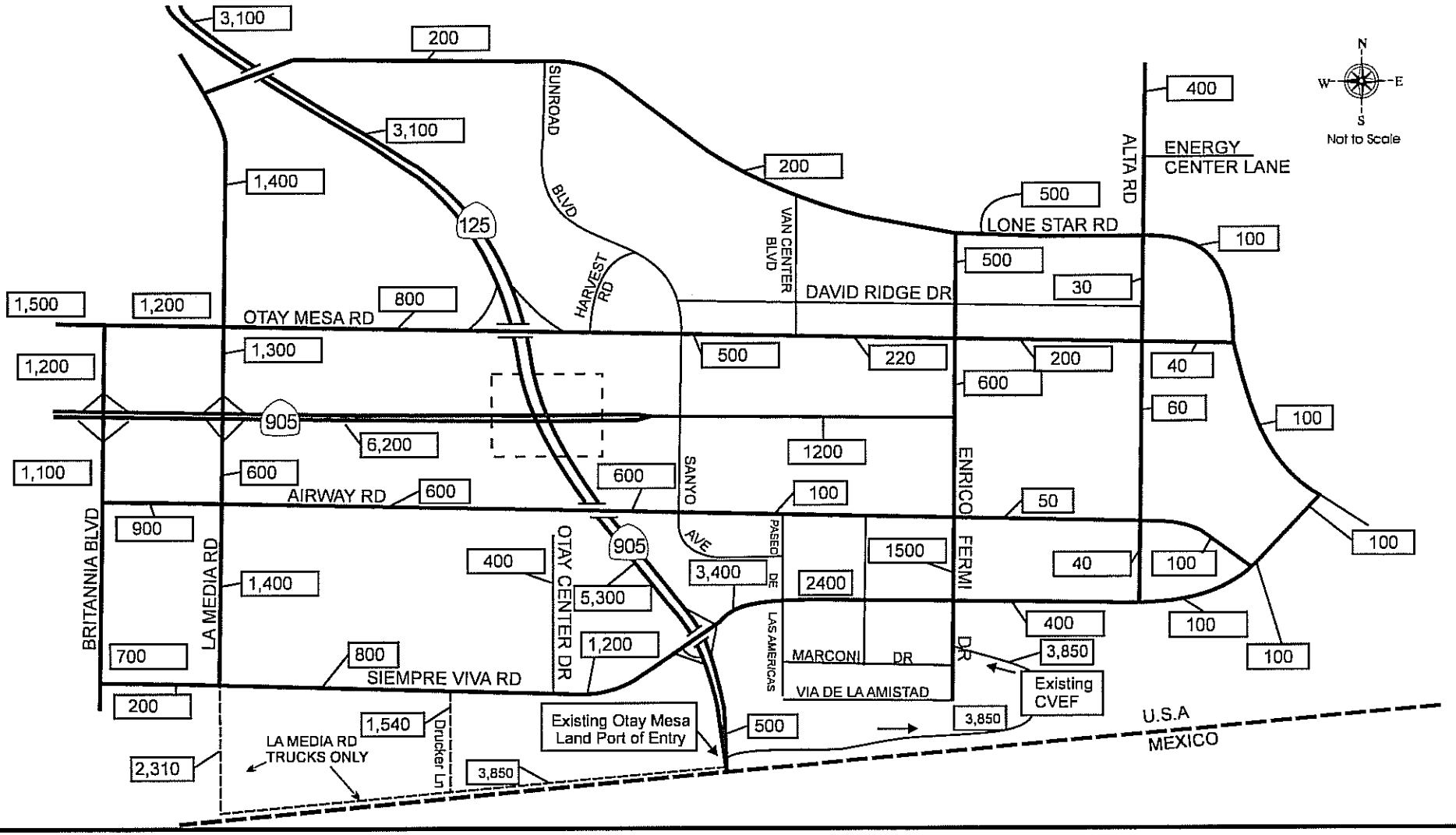
Opening Year (2015) Daily Truck Trips - No Build

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-4a



Opening Year (2015) Daily Truck Trips - No Build

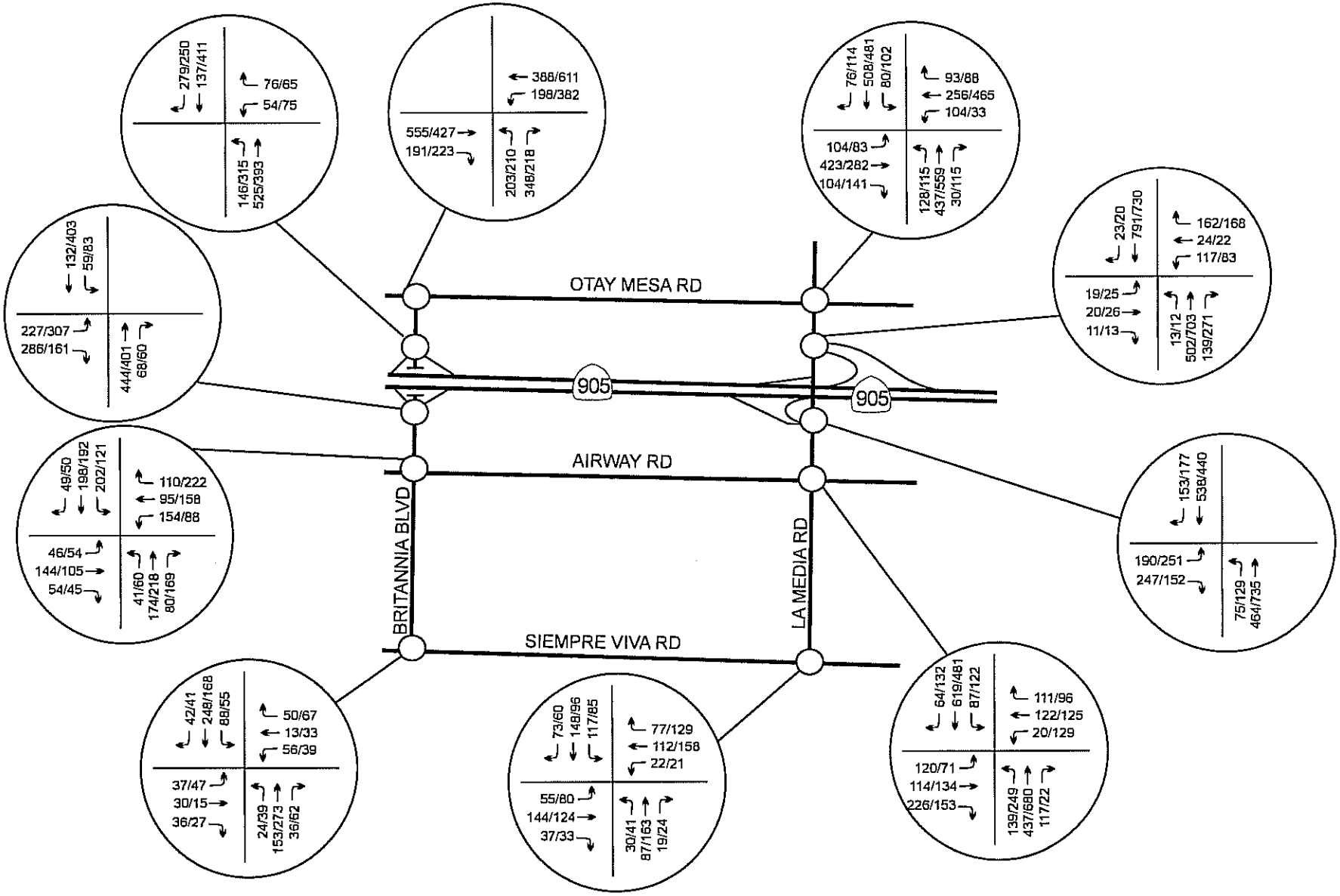
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-4b



Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Build

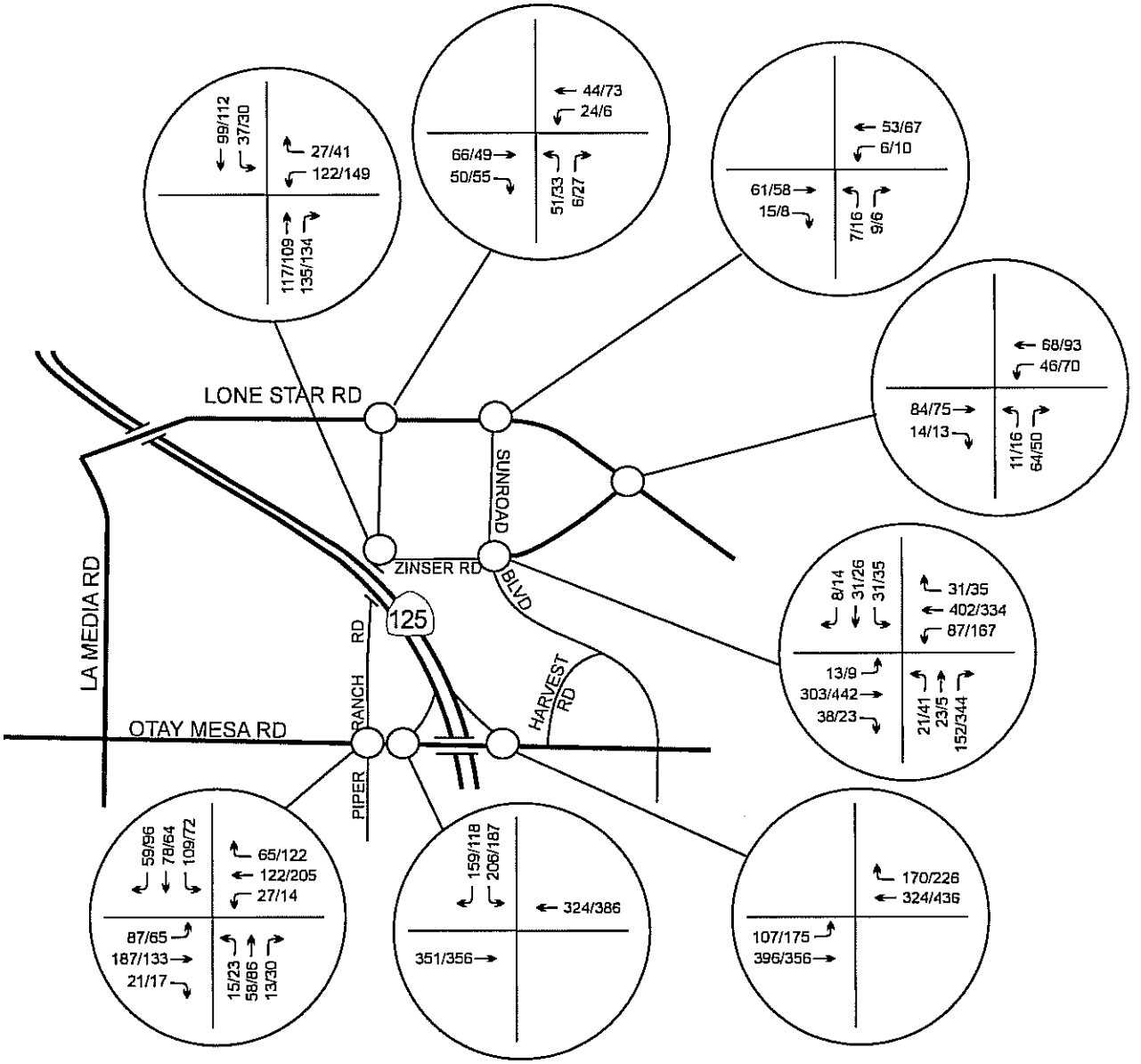
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

Key Intersection

Figure 4-5a

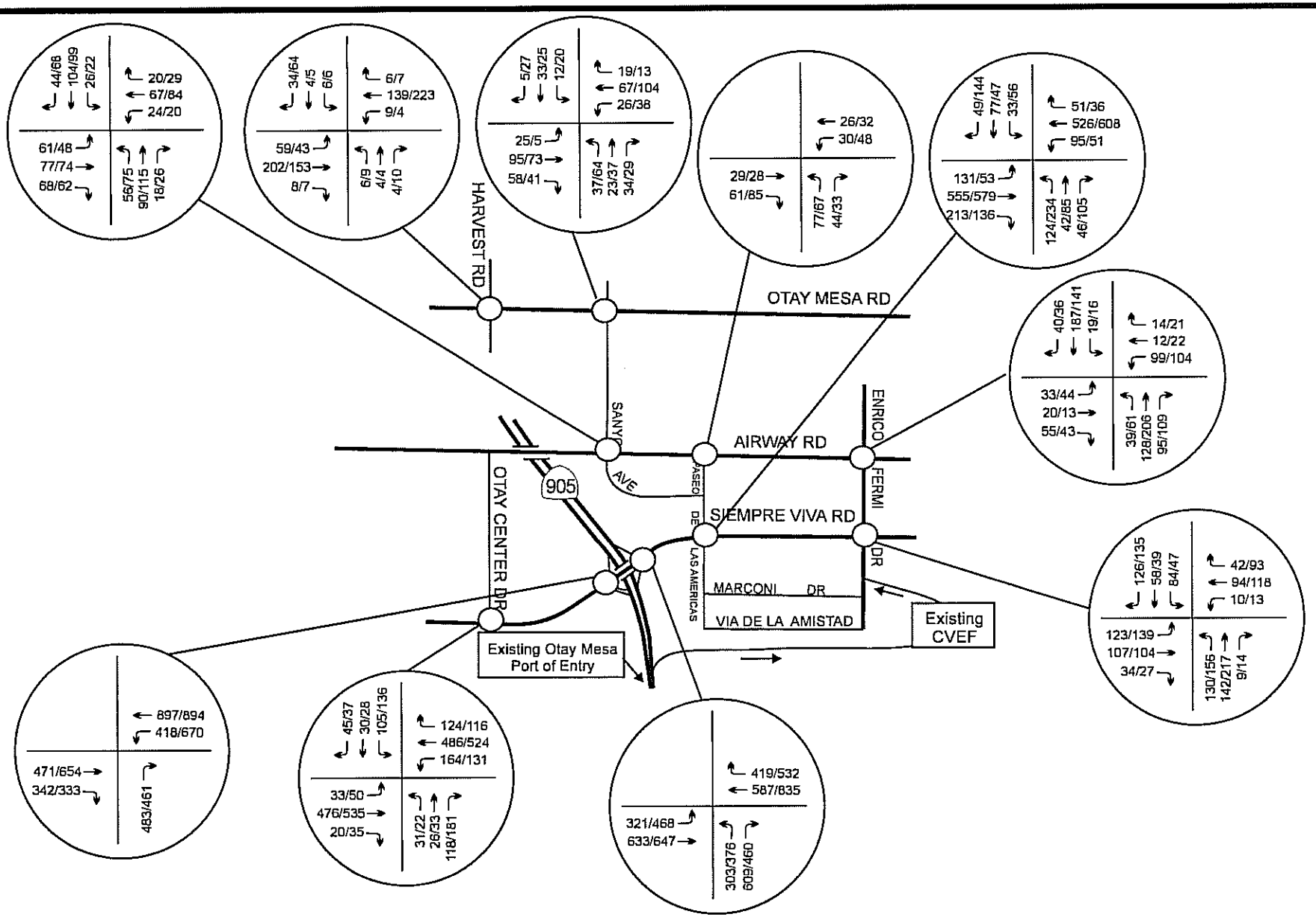


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-5b

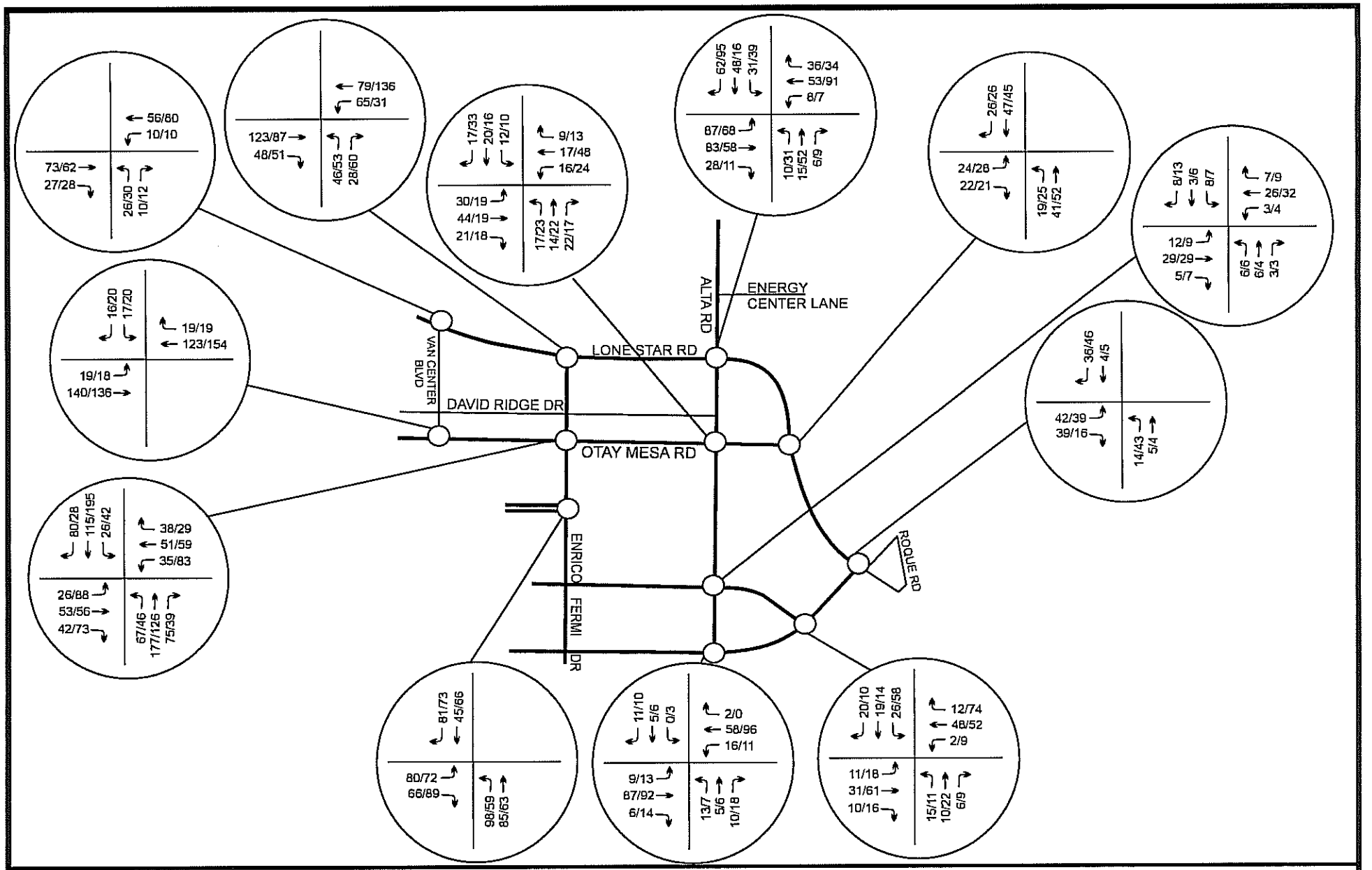


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-5c

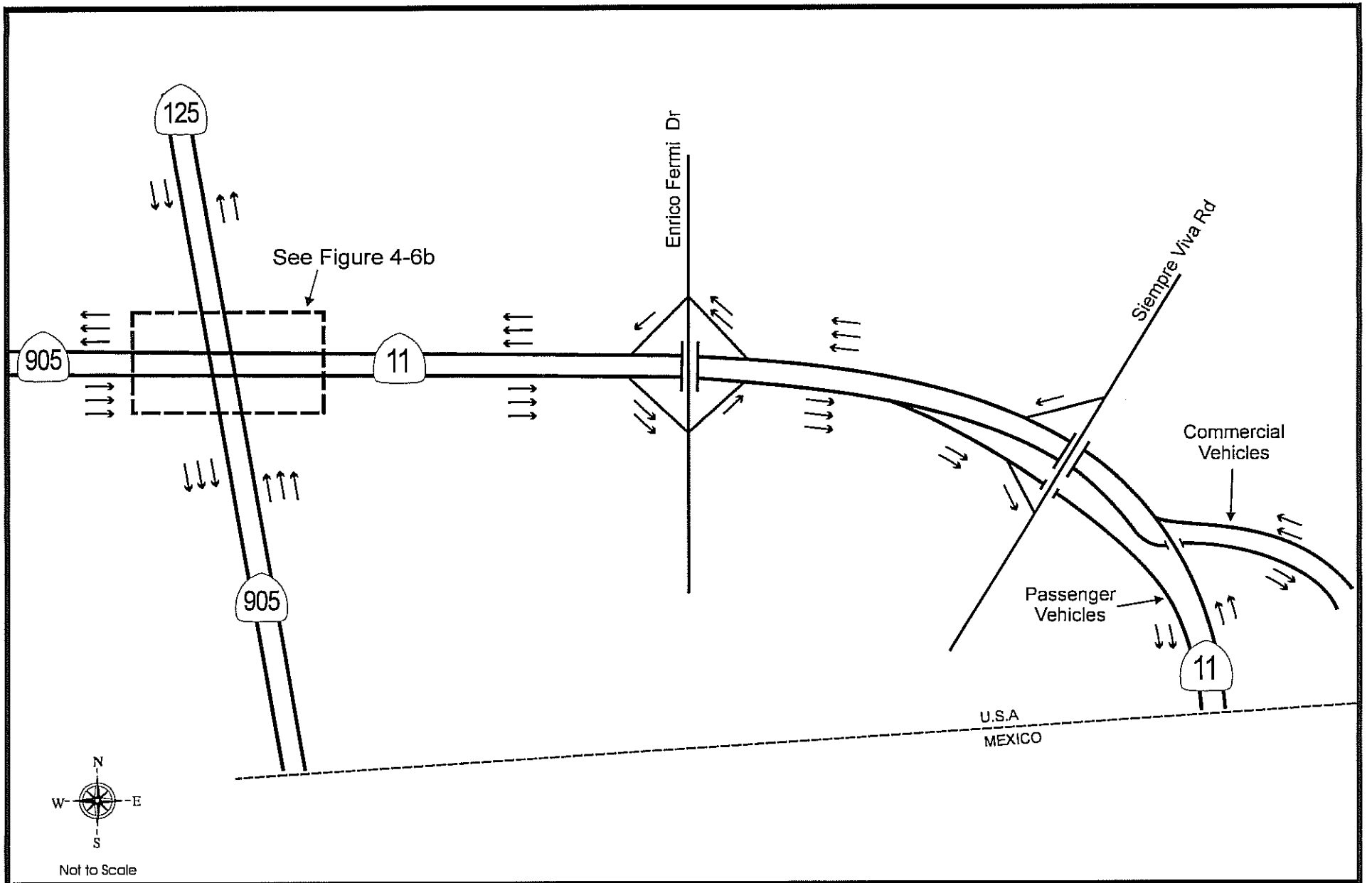


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-5d

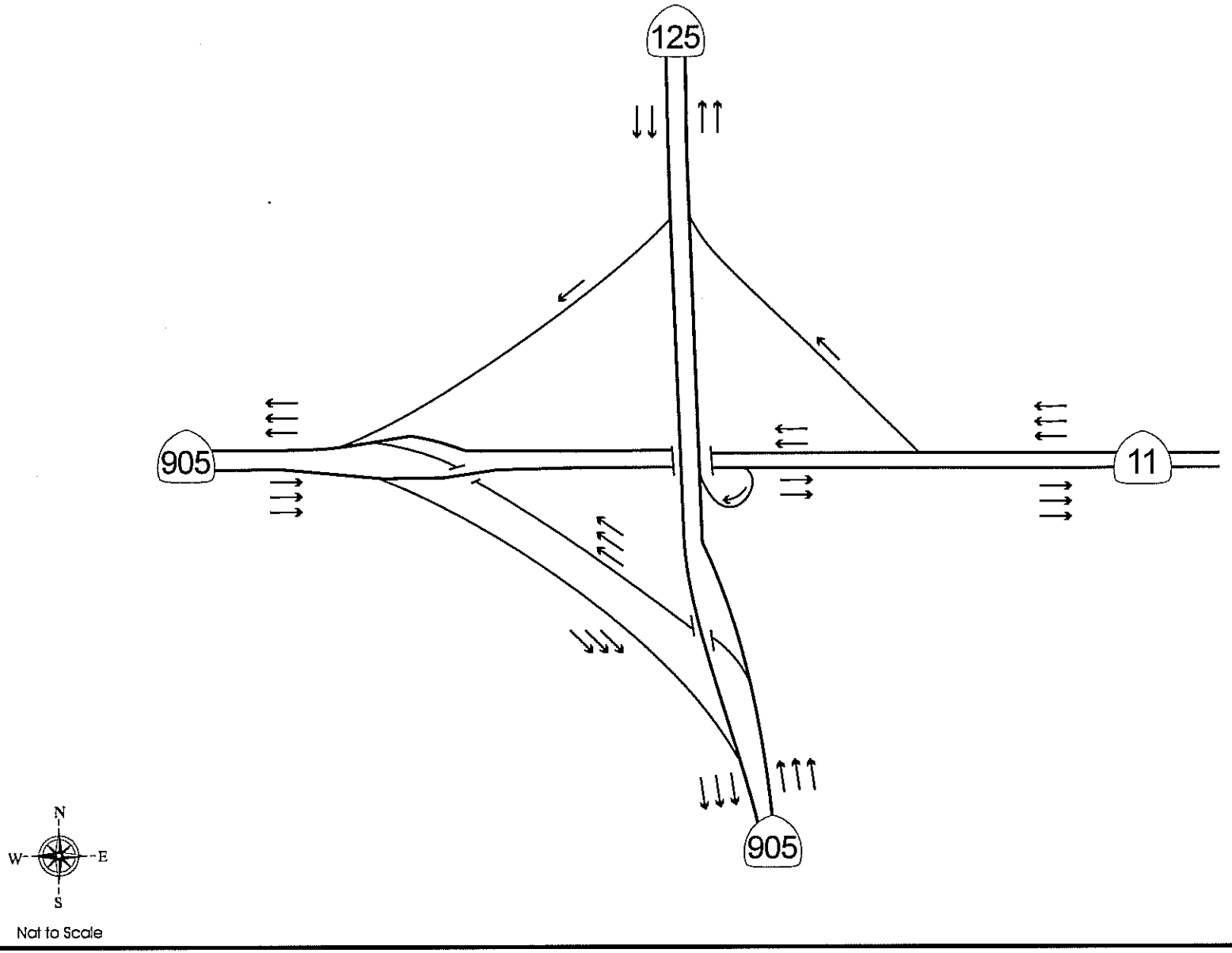


Opening Year (2015) SR-11 Lane Geometry
Two Interchange Alternative

Legend

⟵ Number of Lanes

Figure 4-6a

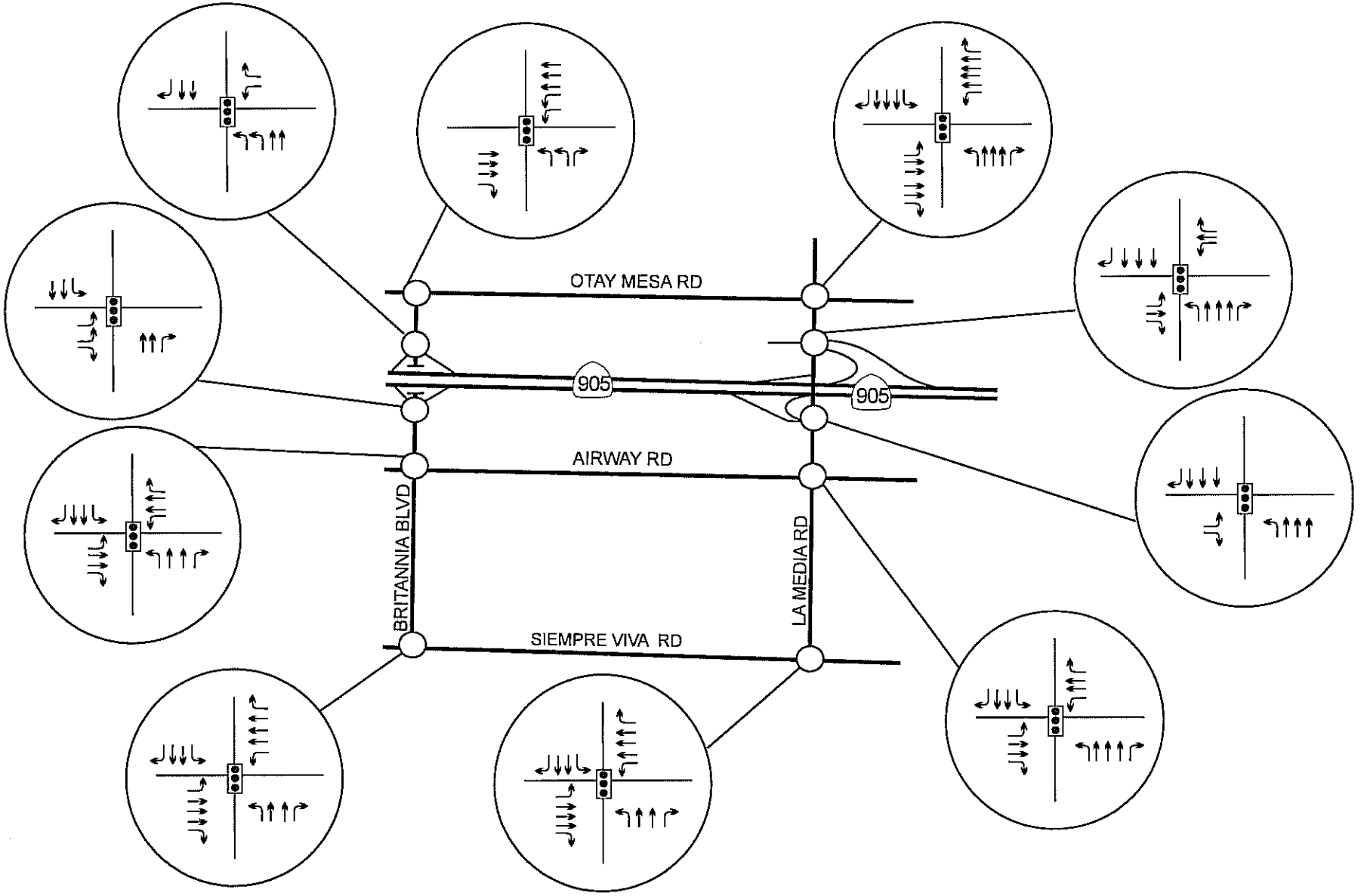


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
Two Interchange Alternative

Legend

⟵ Number of Lanes

Figure 4-6b



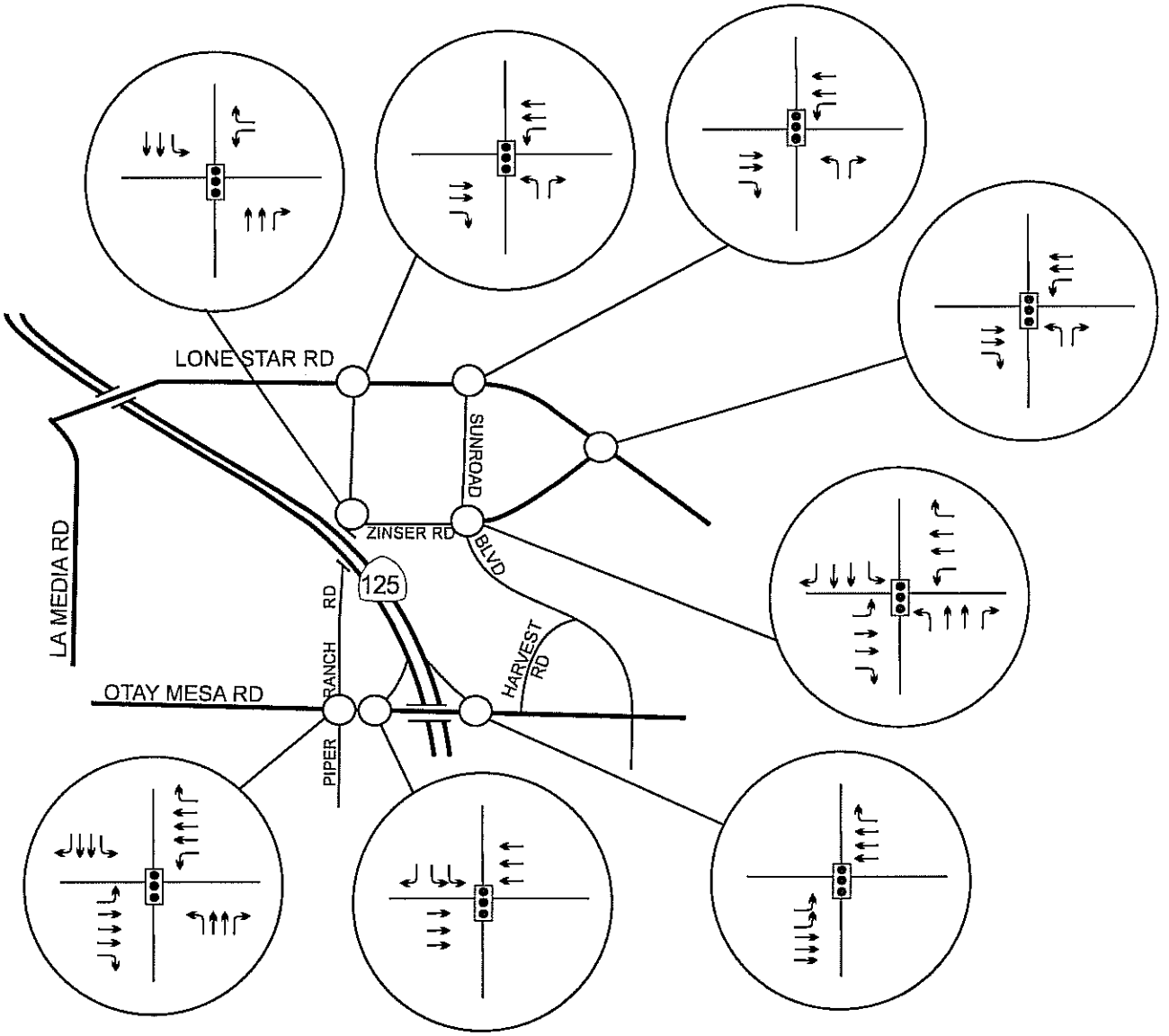
Opening Year (2015) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel

Signal

Figure 4-7a



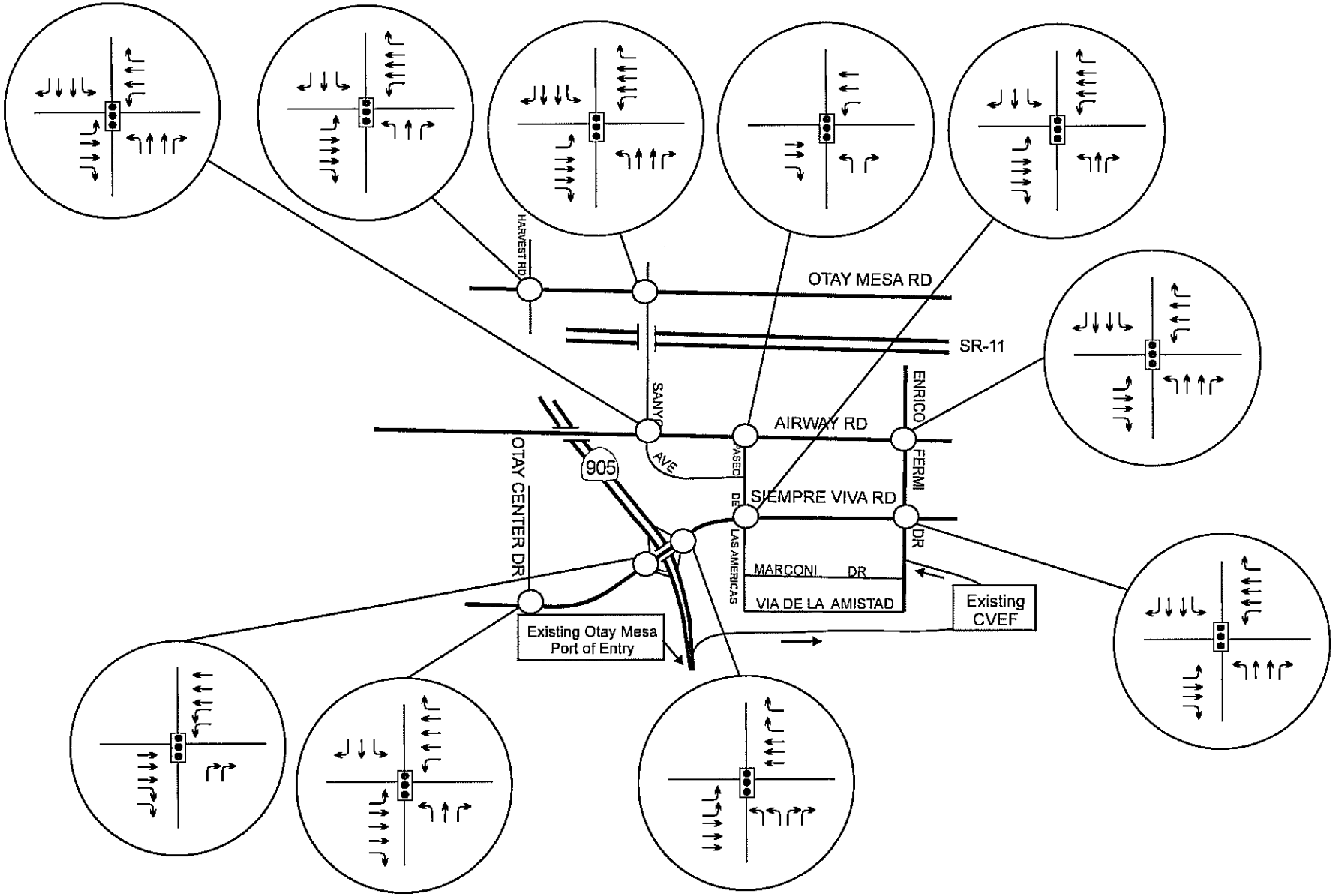
Opening Year (2015) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel

Signal

Figure 4-7b



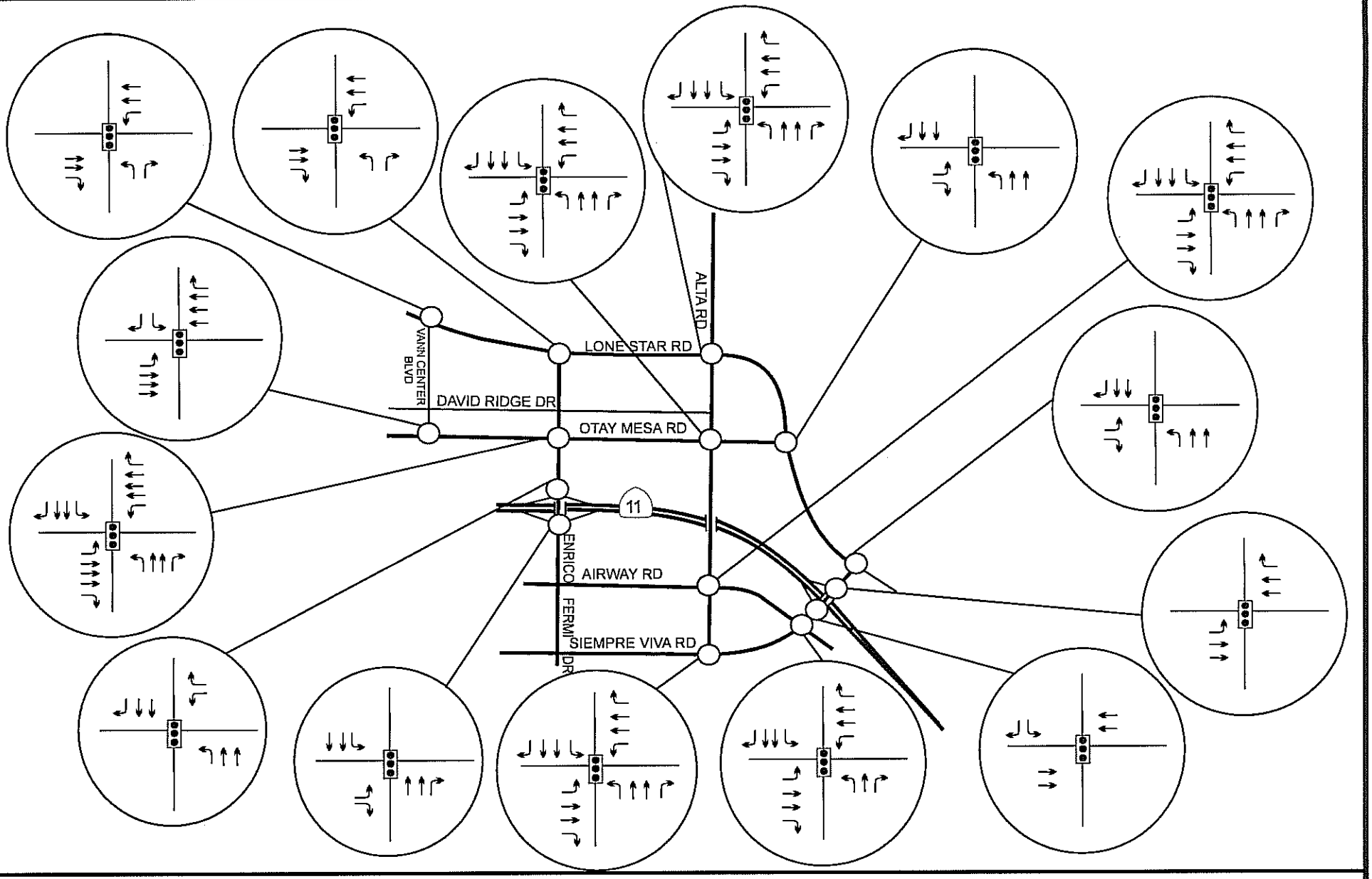
Opening Year (2015) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel

Signal

Figure 4-7c



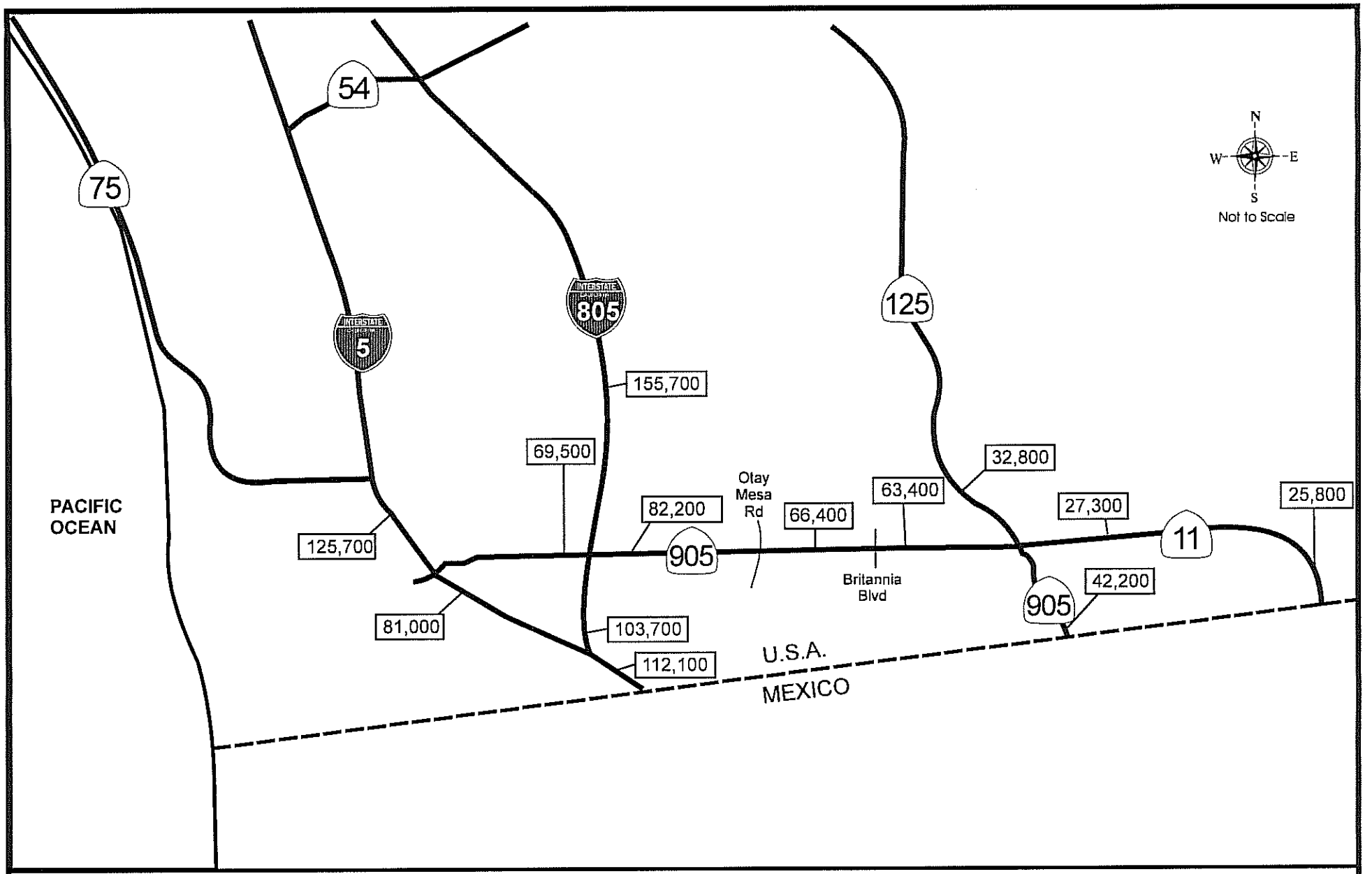
Opening Year (2015) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel

Signal

Figure 4-7d



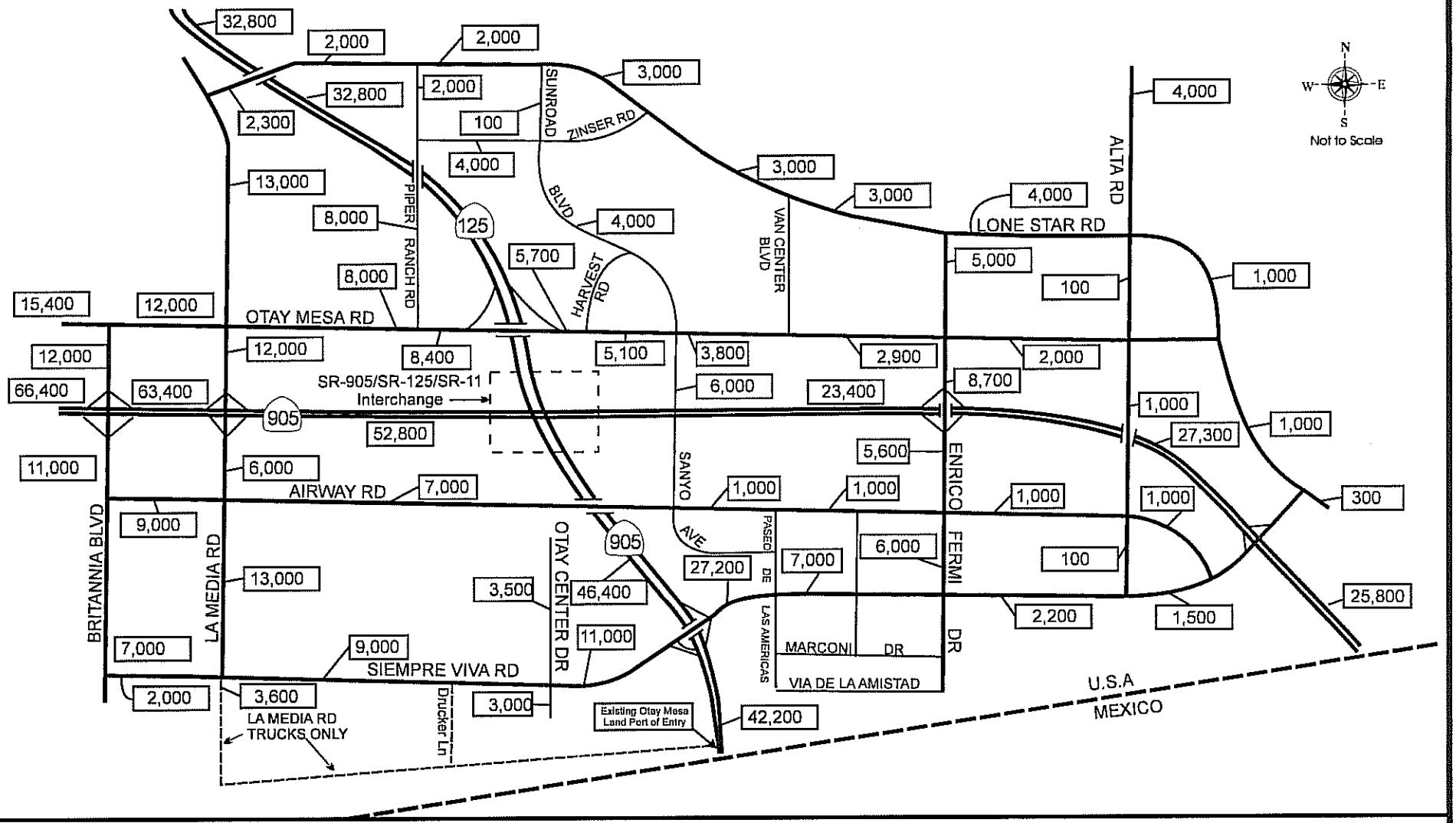
Opening Year (2015) Average Daily Traffic - Two Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-8a



Opening Year (2015) Average Daily Traffic - Two Interchange Alternative

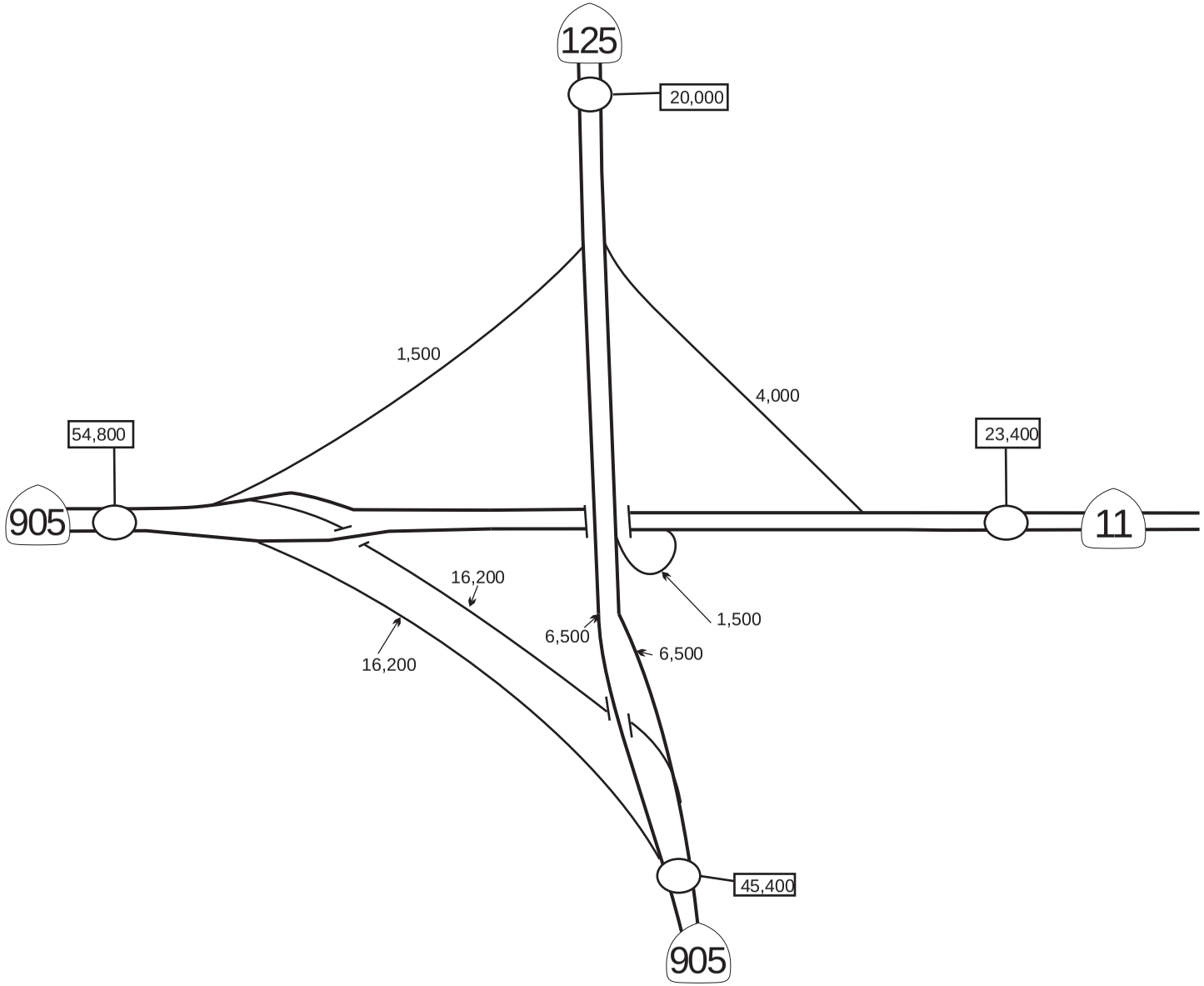
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-8b

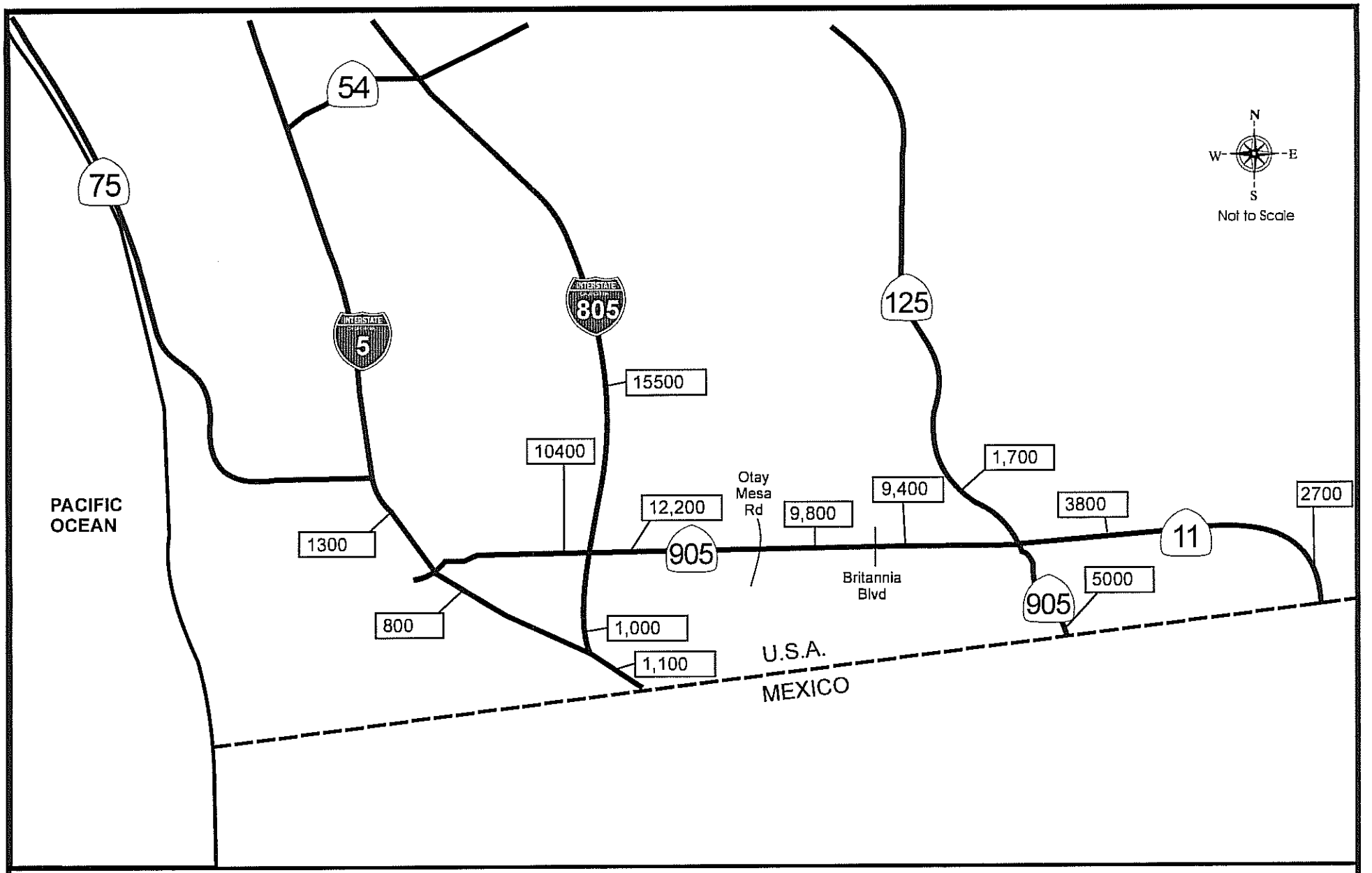


Opening Year (2015) Average Daily Traffic - Two Interchange Alternative

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-8c



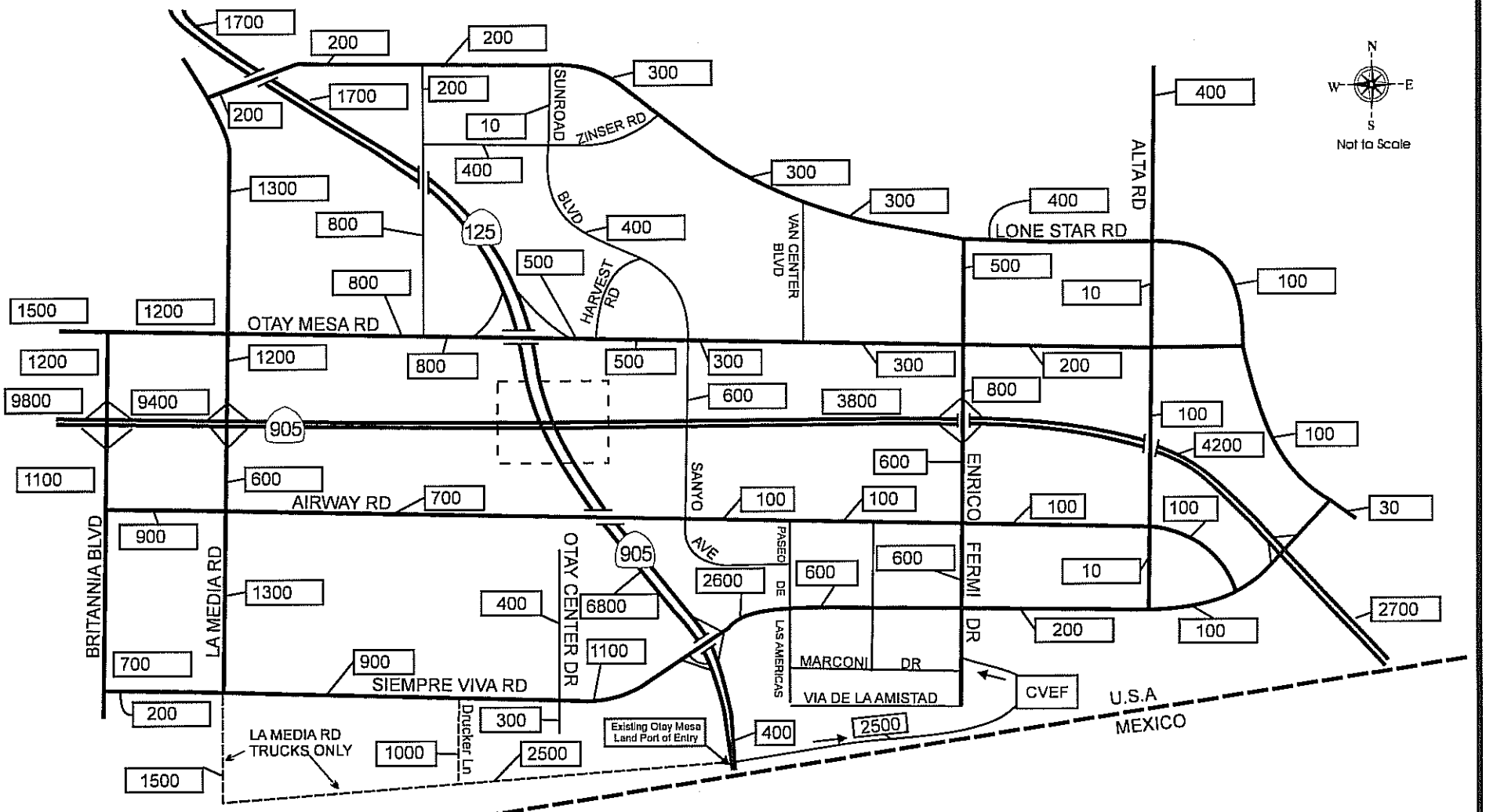
Opening Year (2015) Daily Truck Trips-
Two Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-9a

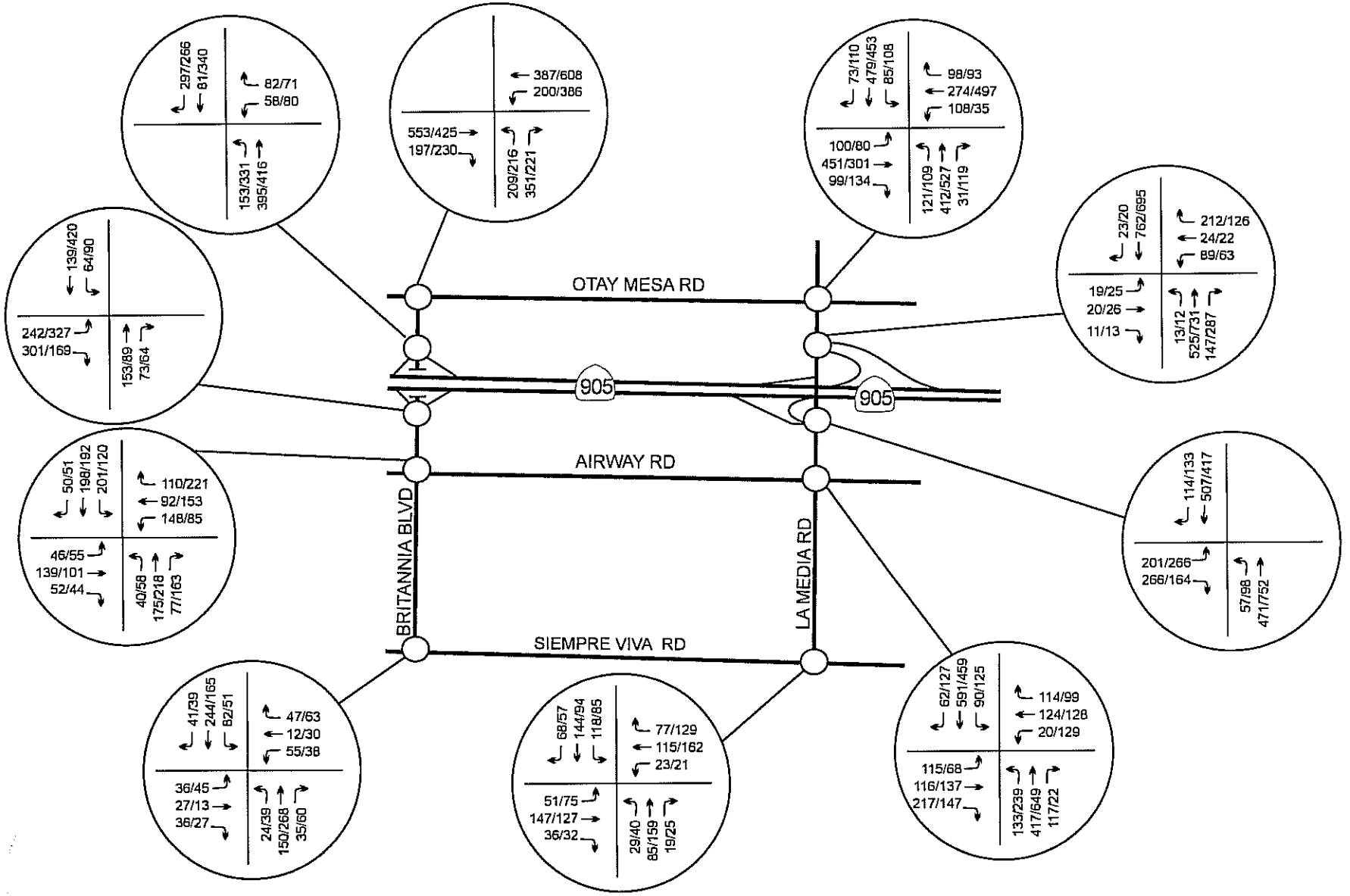


Opening Year (2015) Daily Truck Trips - Two Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 4-9b

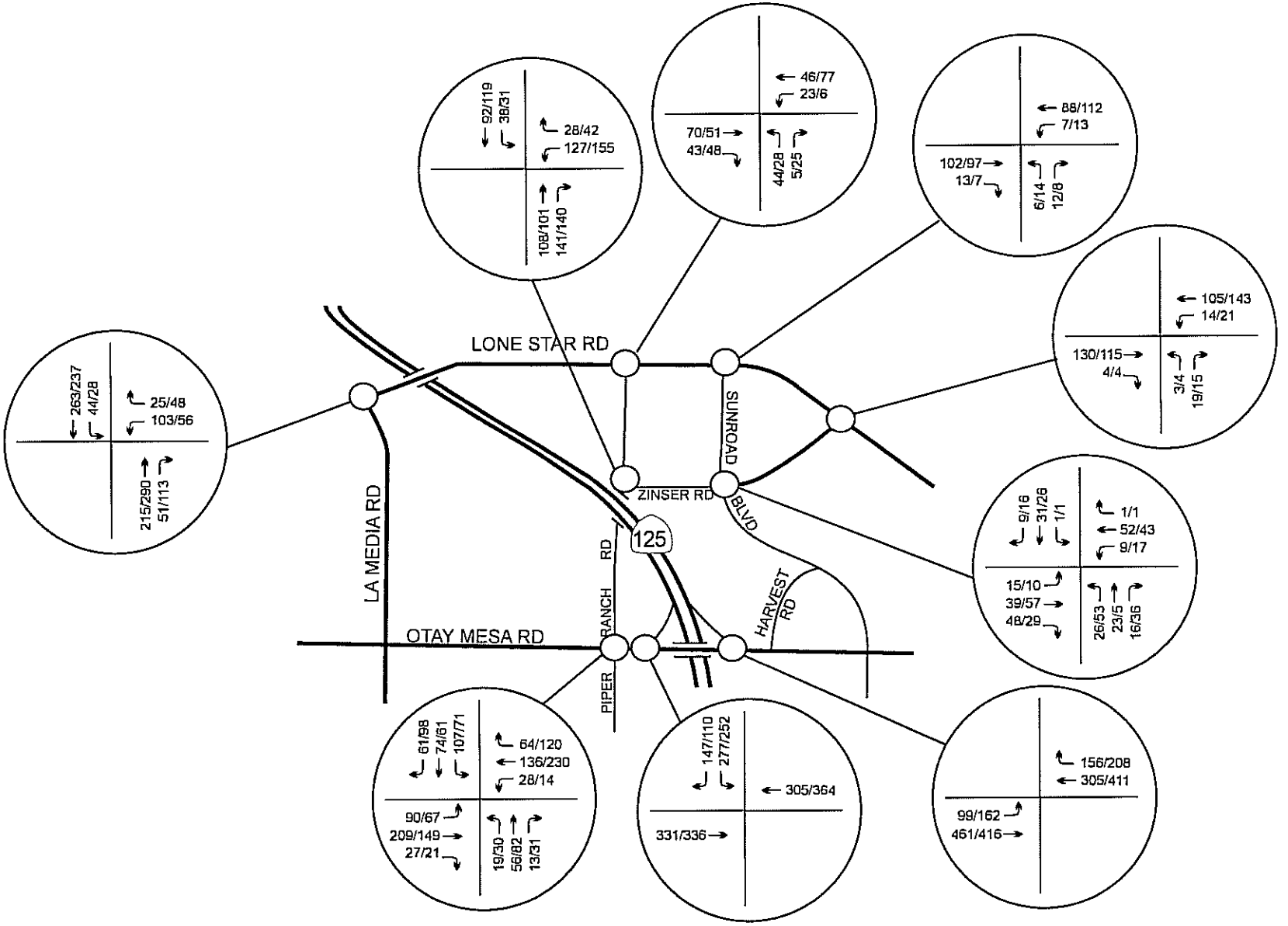


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-10a

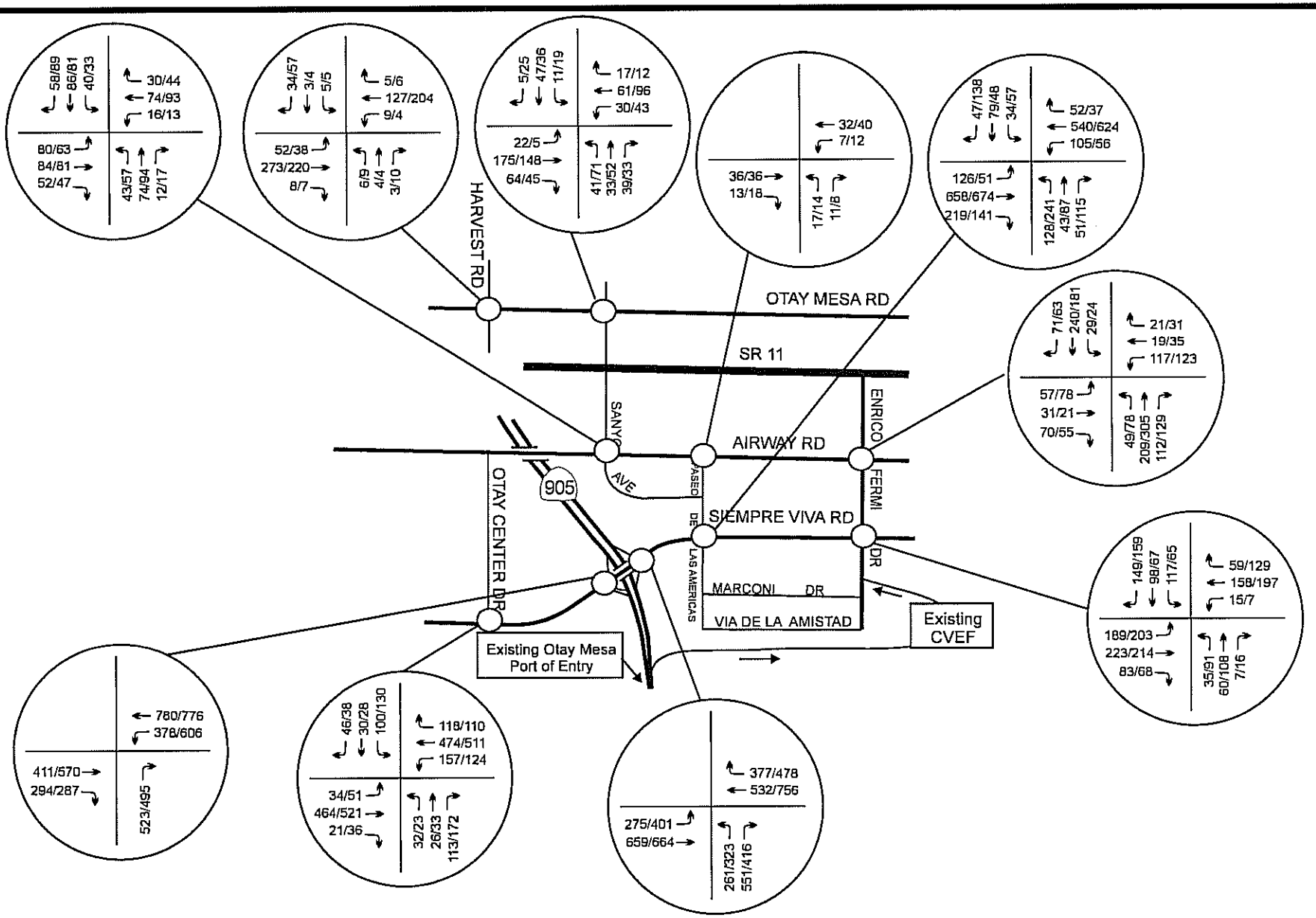


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-10b

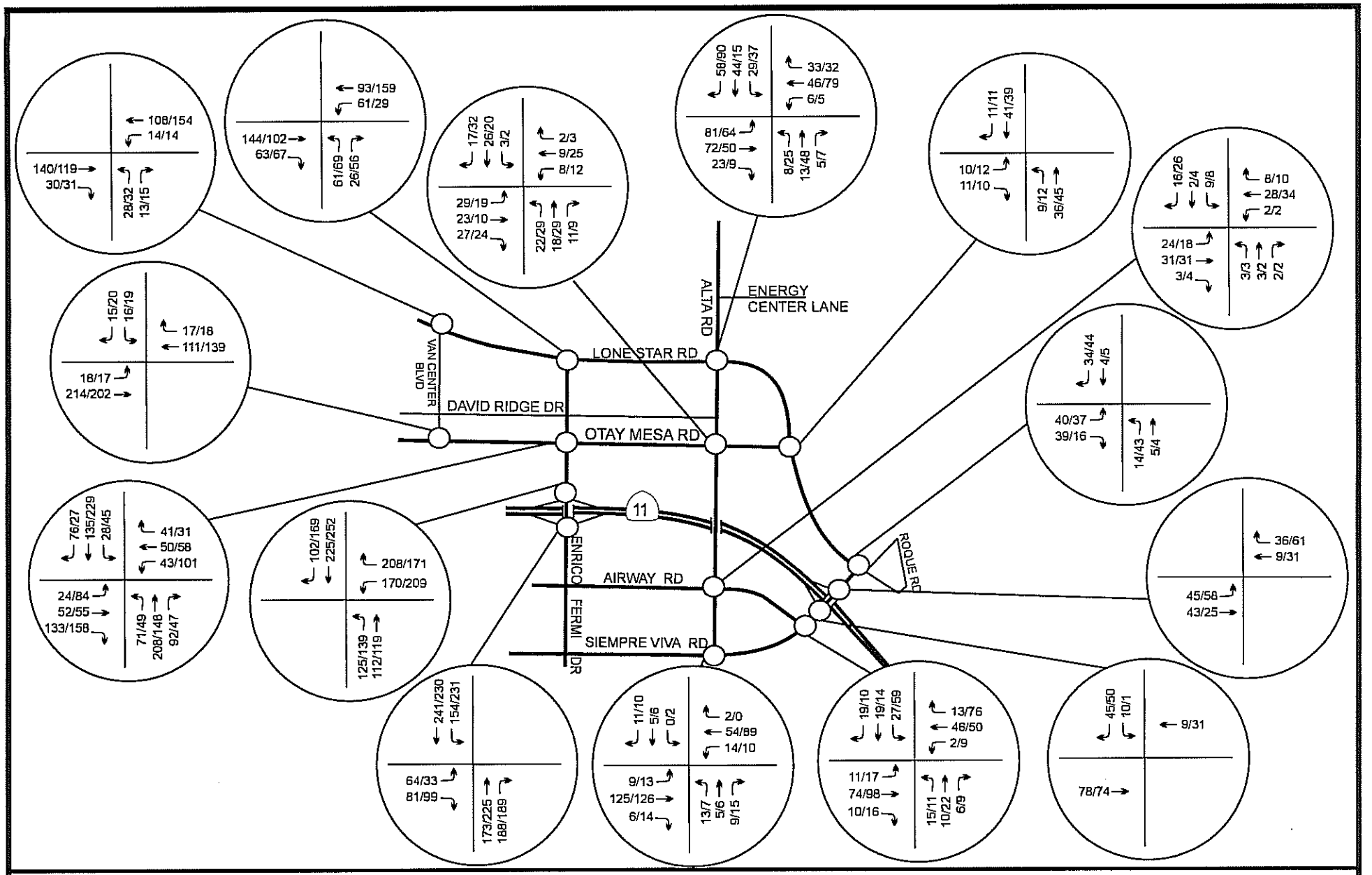


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-10c

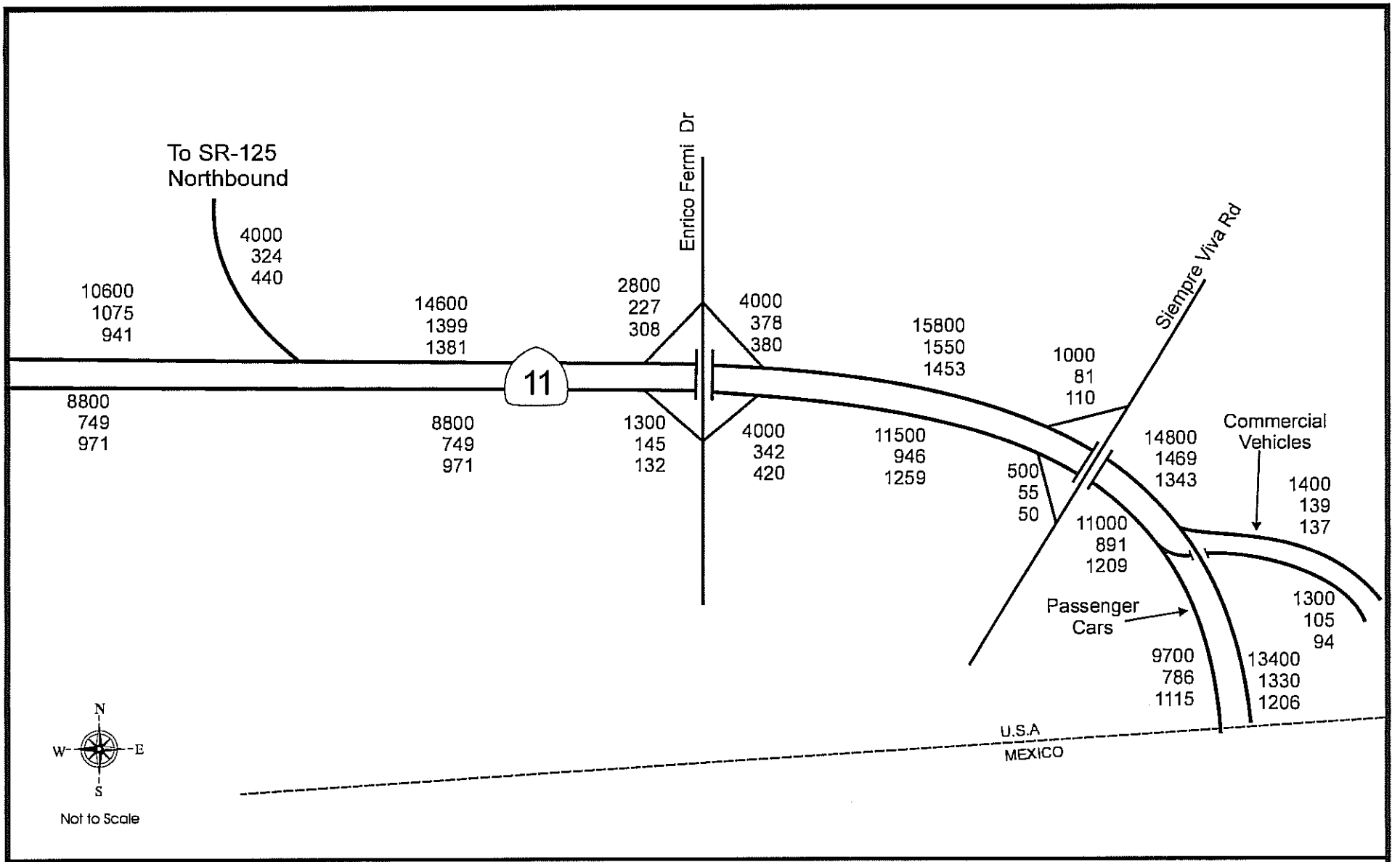


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-10d

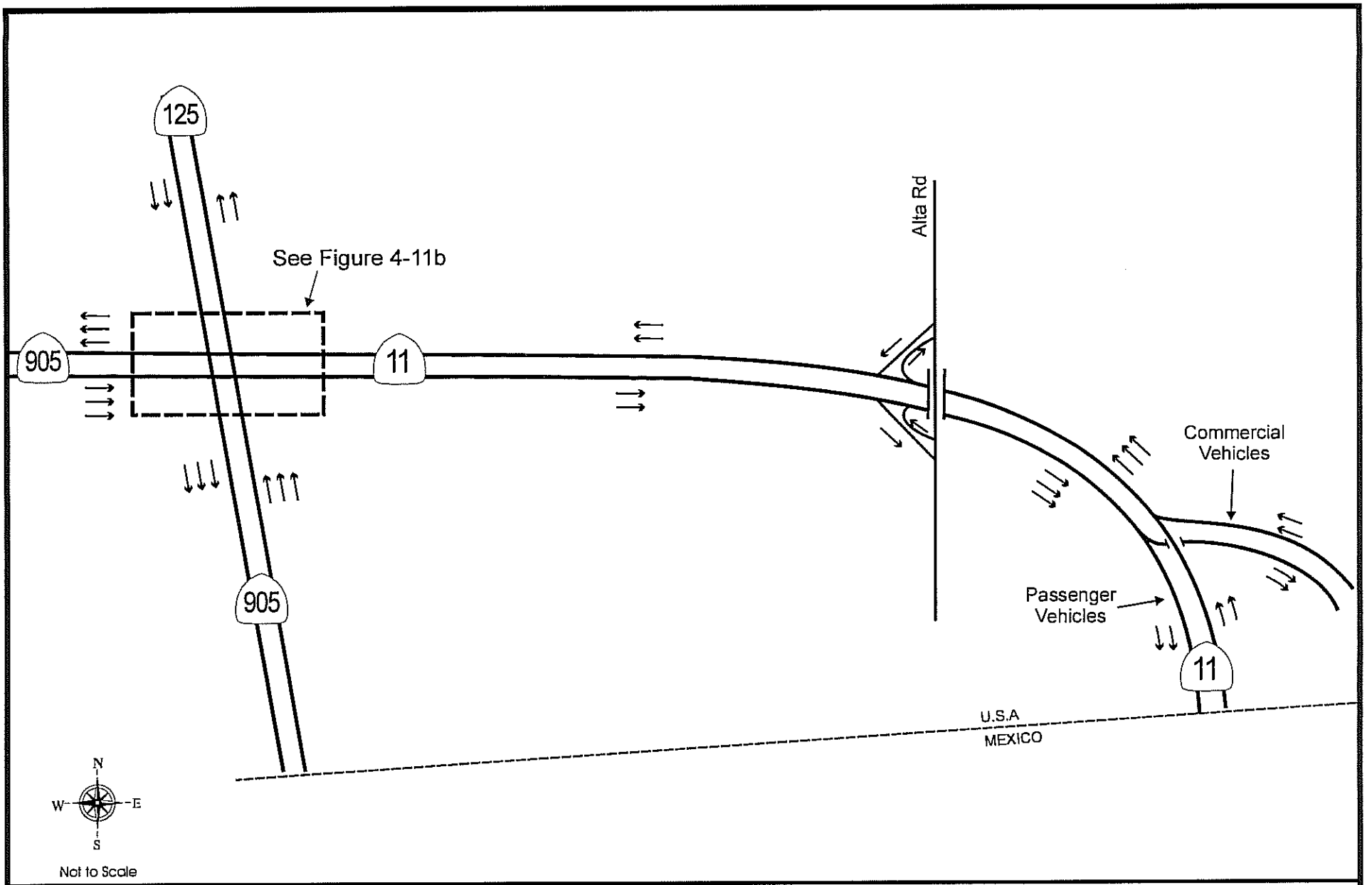


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - Two Interchange Alternative

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-10e

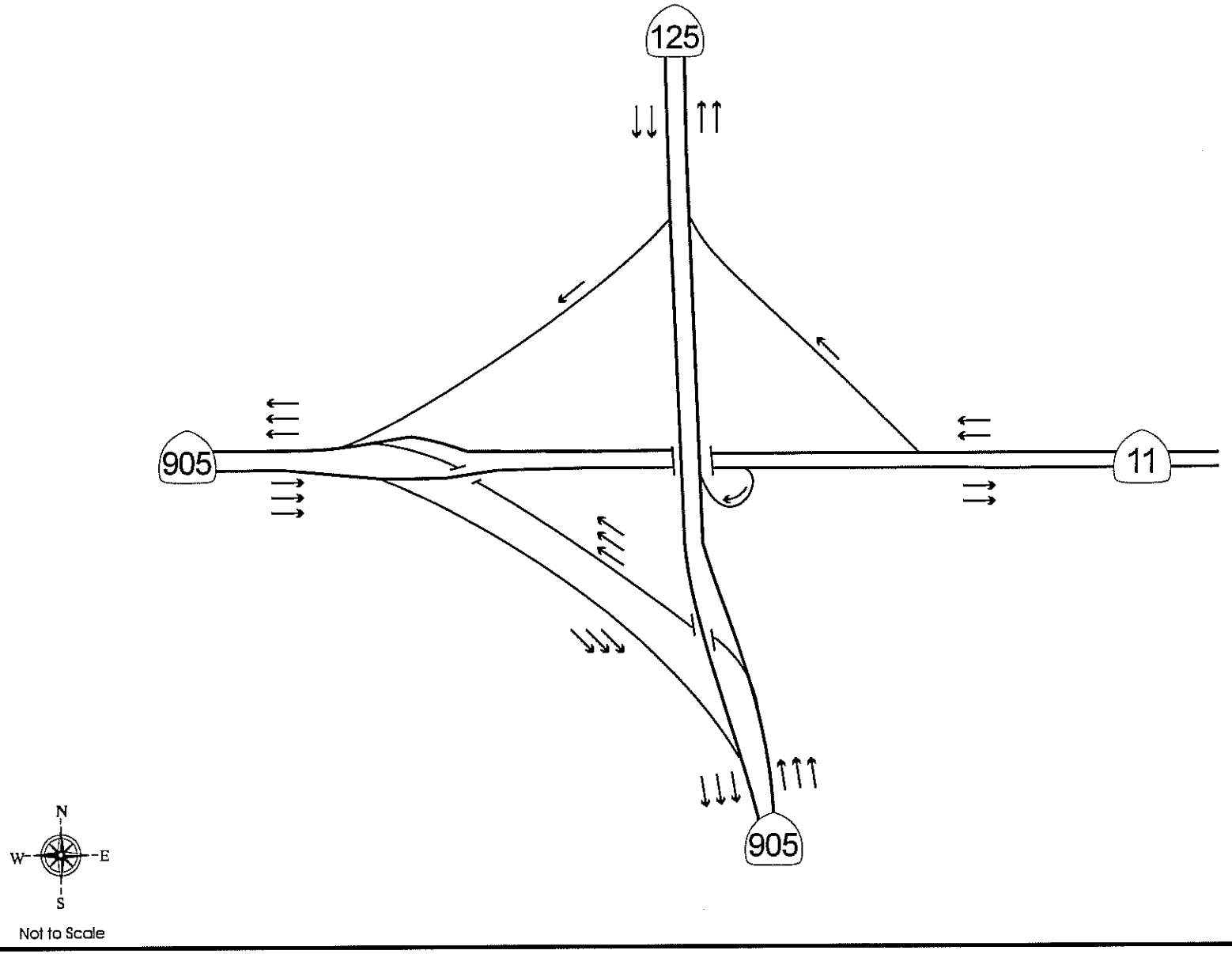


Opening Year (2015) SR-11 Lane Geometry
One Interchange Alternative

Legend

← Number of Lanes

Figure 4-11a

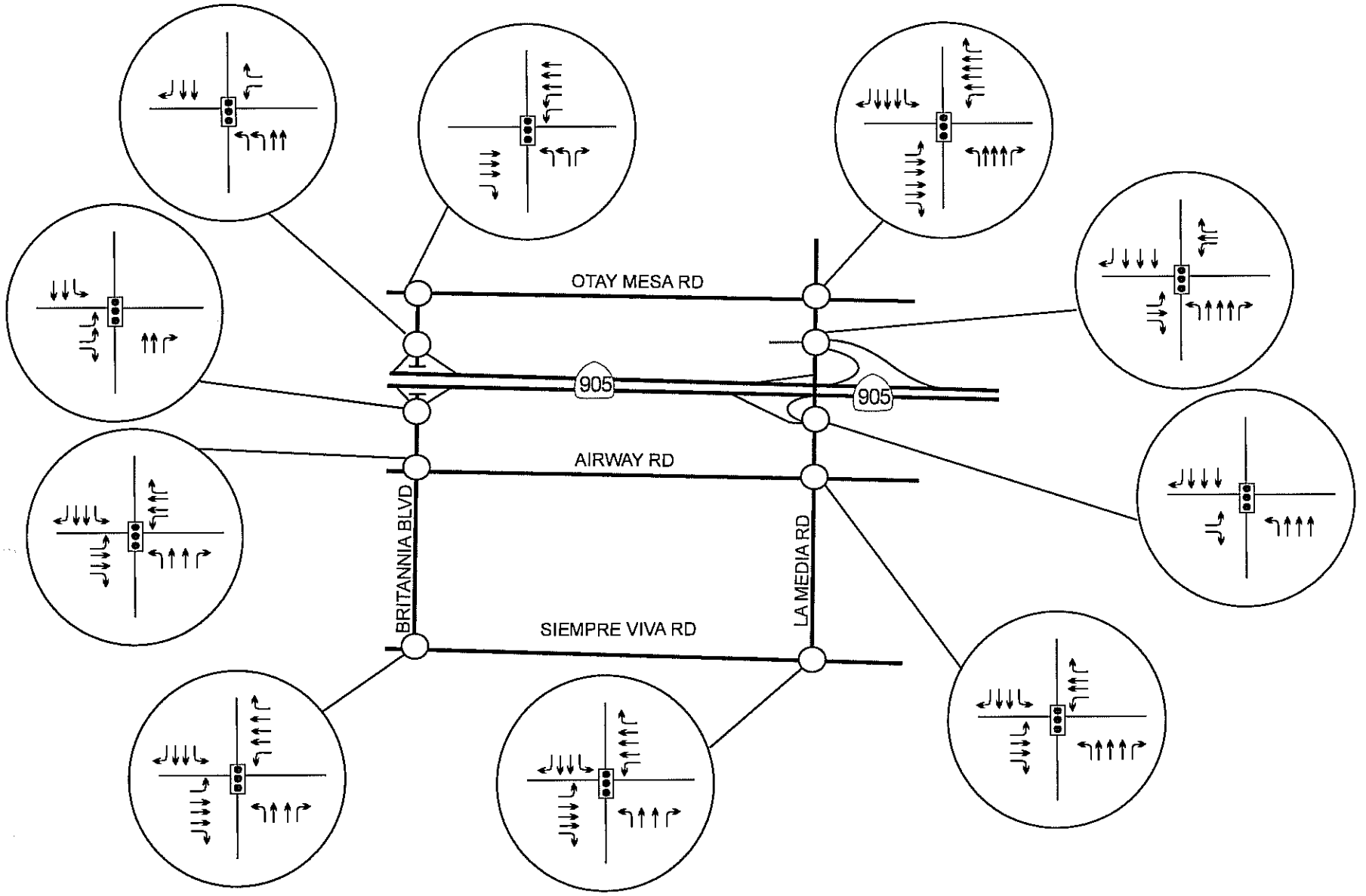


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
One Interchange Alternative

Legend

← Number of Lanes

Figure 4-11b

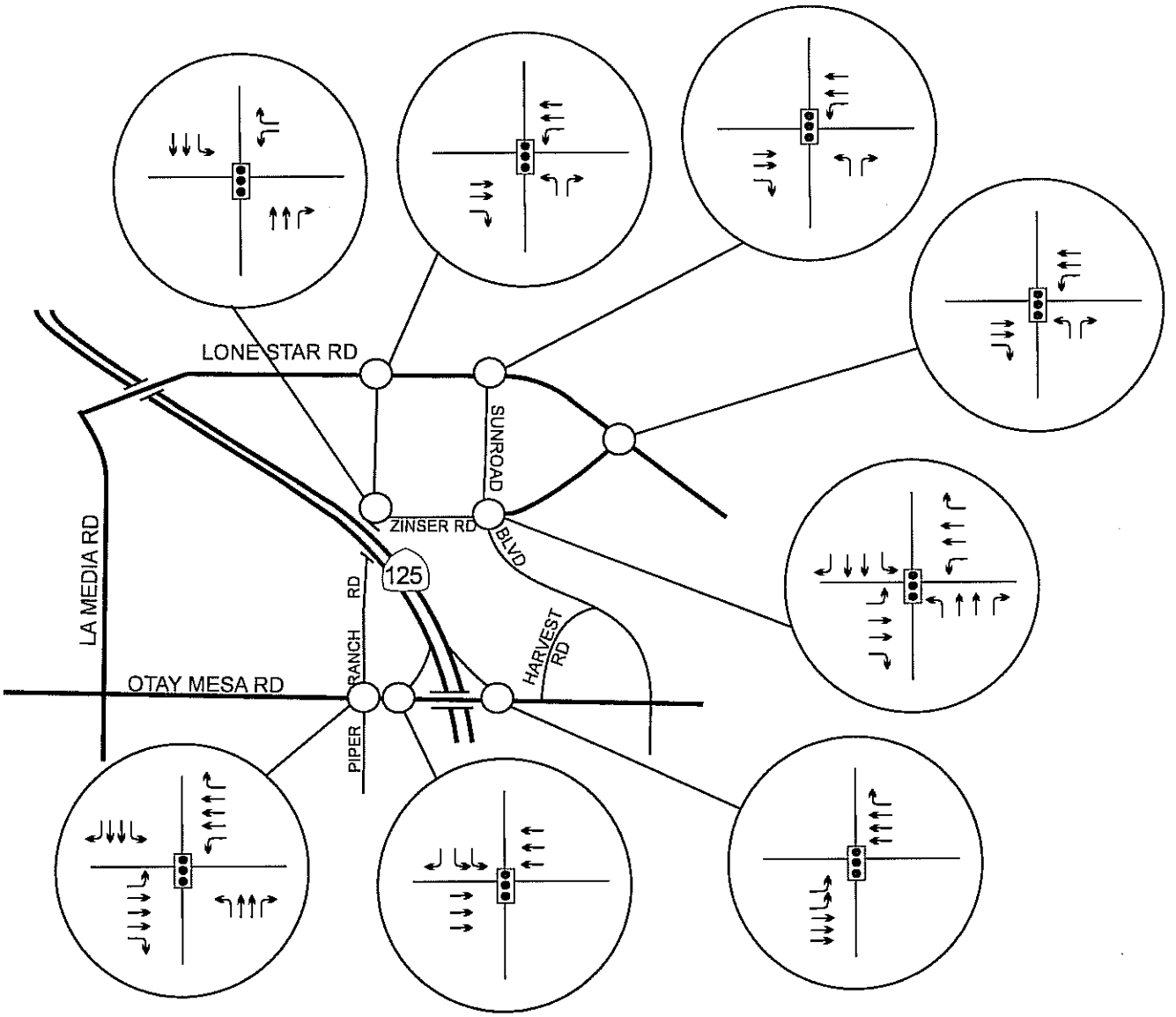


Opening Year (2015) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-12a

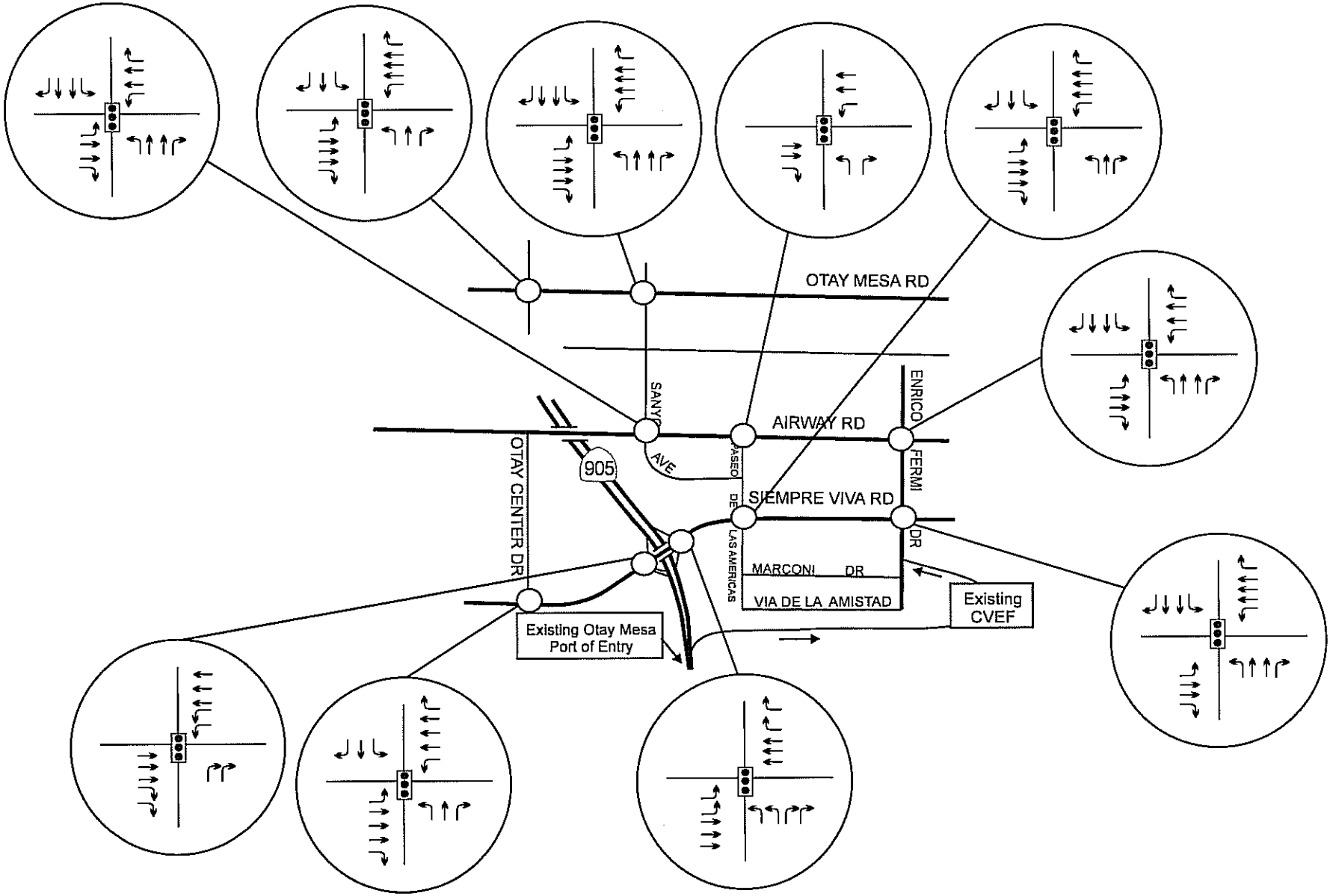


Opening Year (2015) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-12b

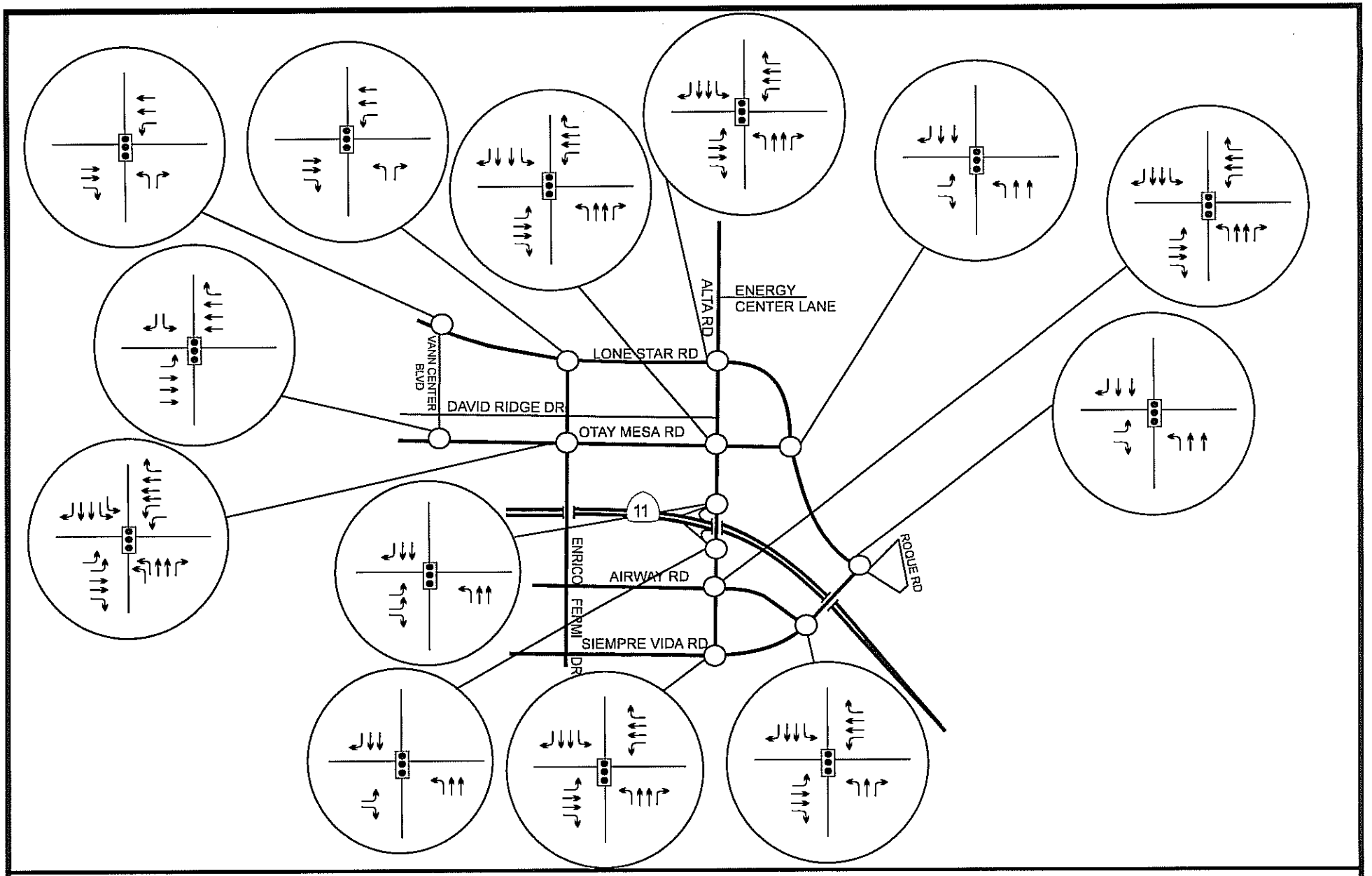


Opening Year (2015) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-12c

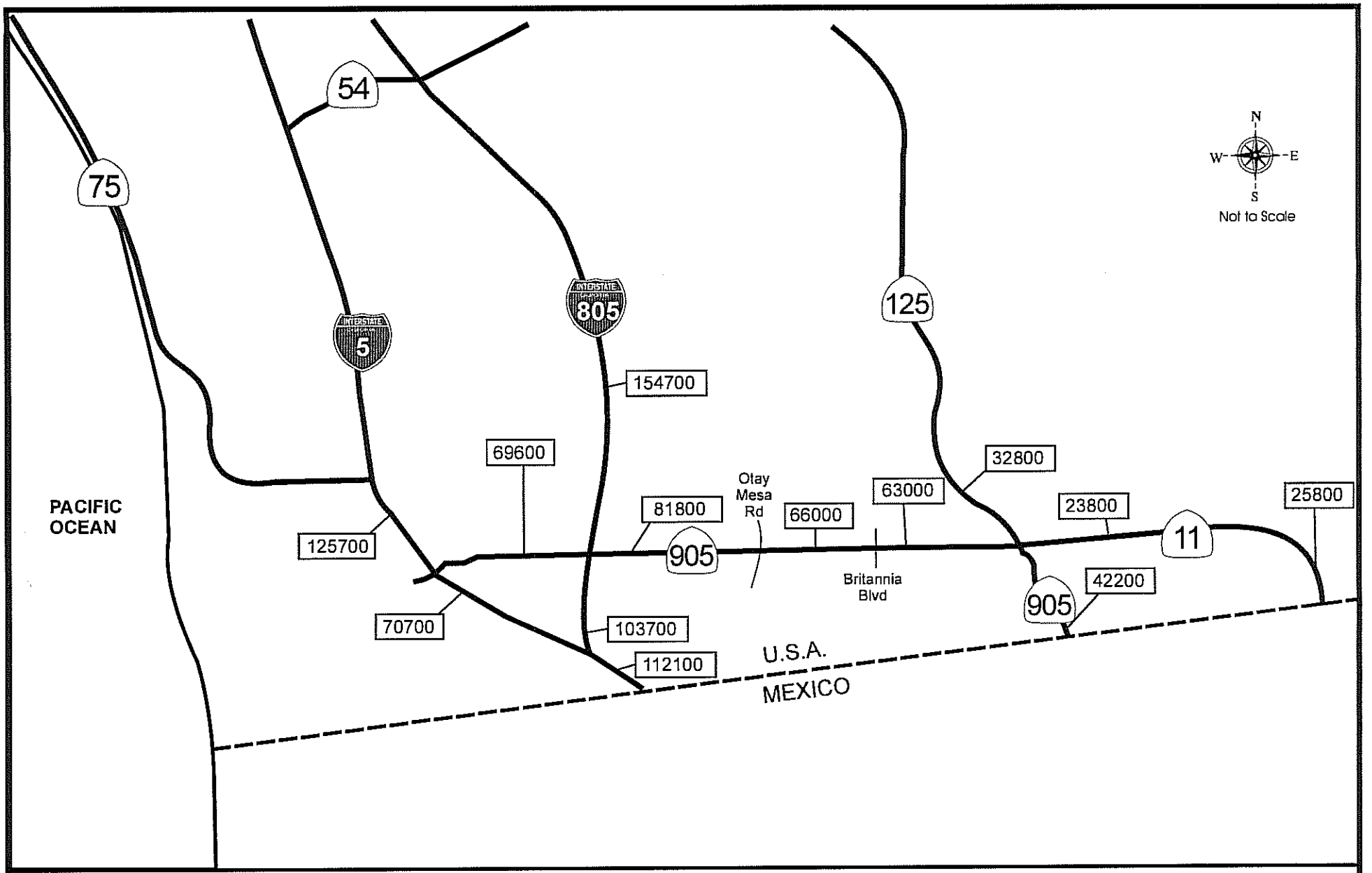


Opening Year (2015) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-12d



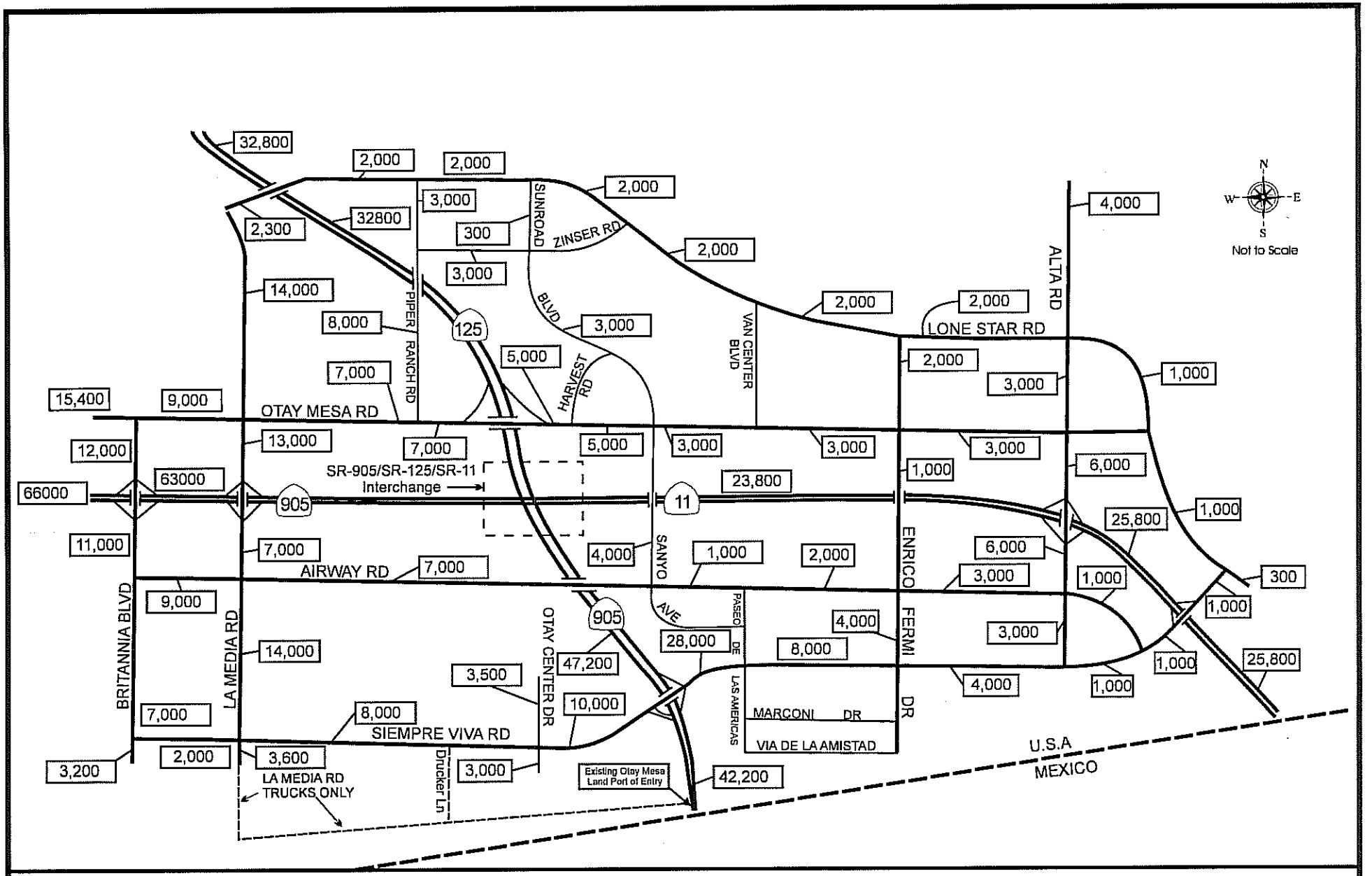
Opening Year (2015) Average Daily Traffic - One Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-13a



Opening Year (2015) Average Daily Traffic - One Interchange Alternative

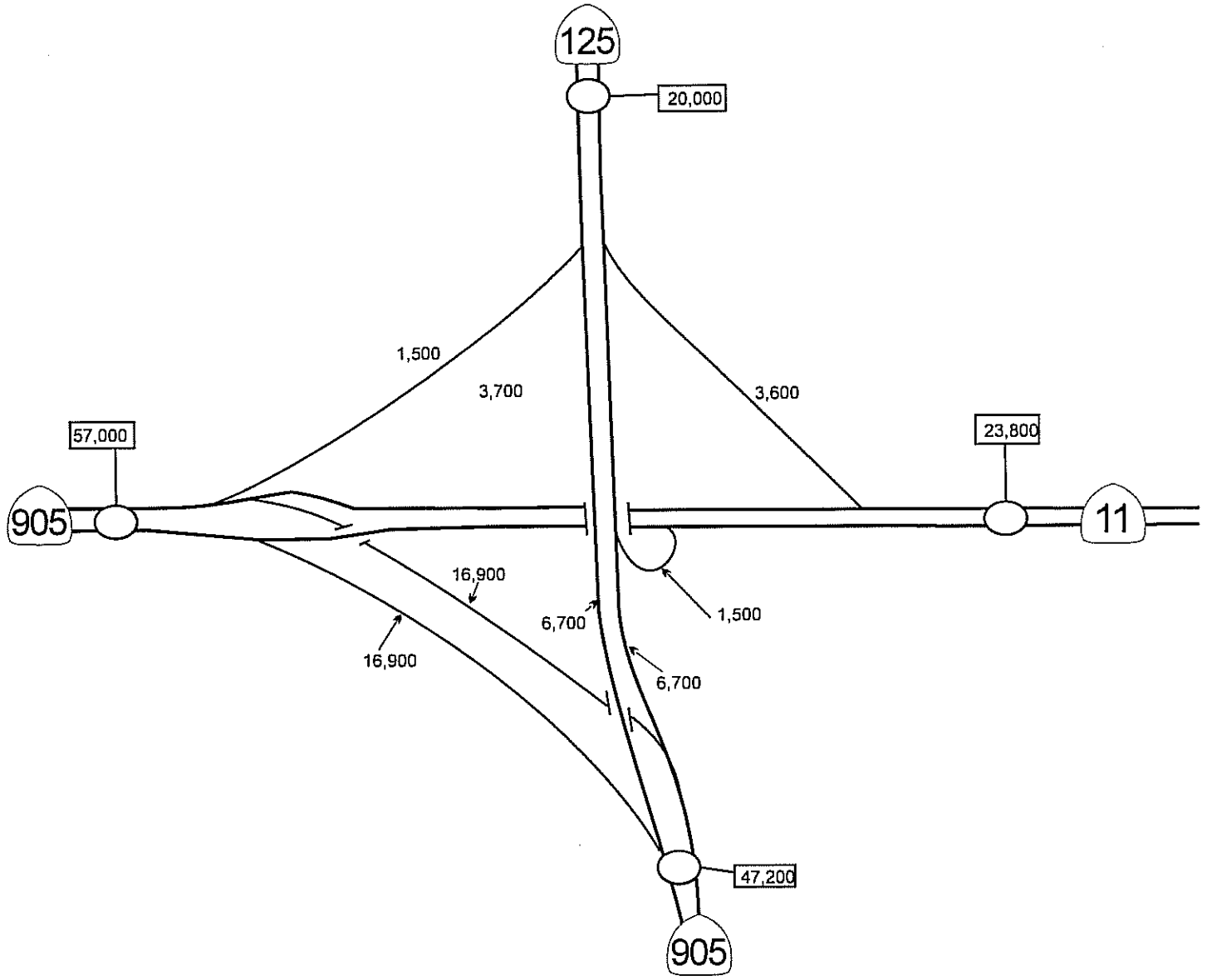
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-13b

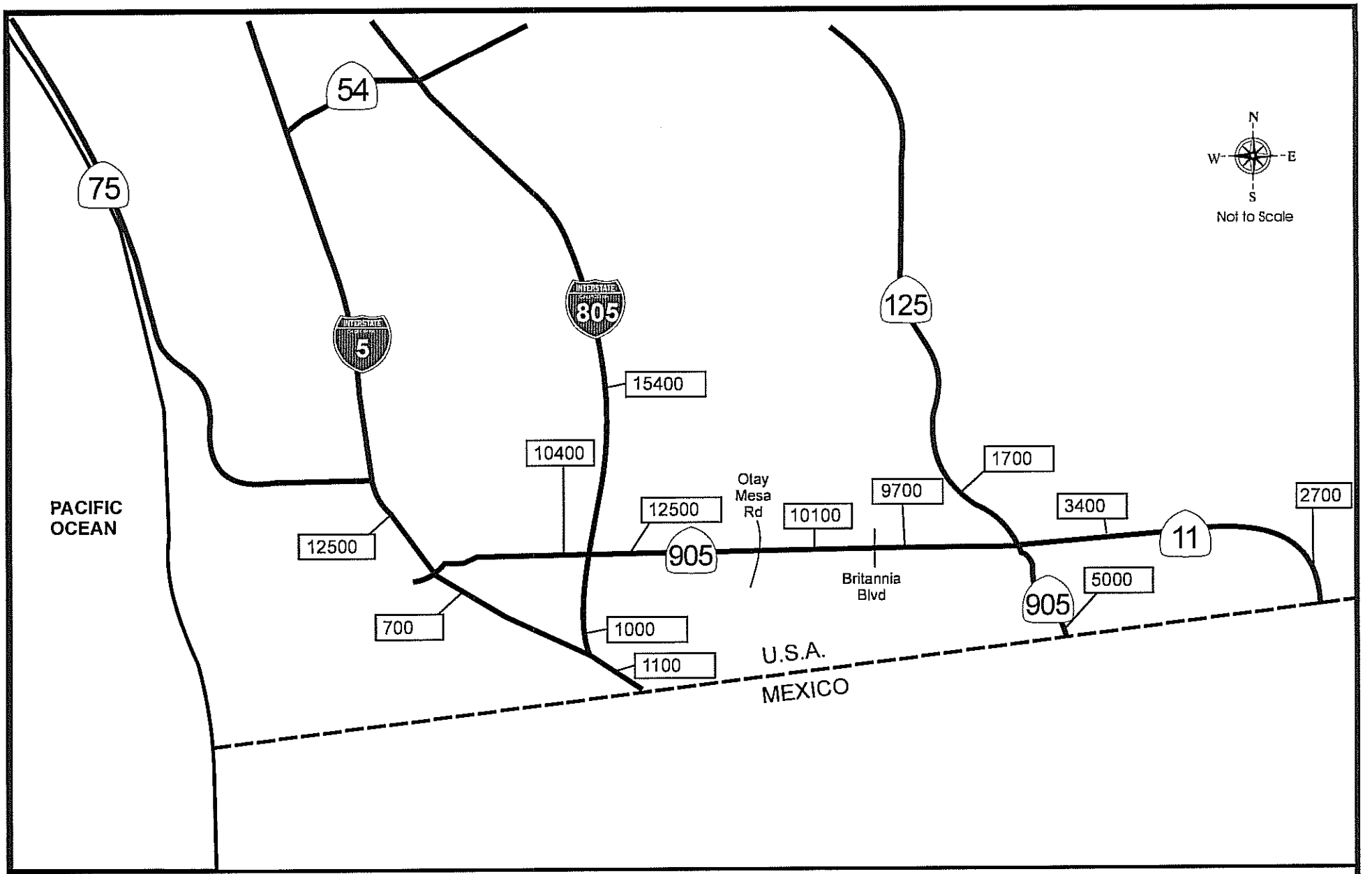


Opening Year (2015) Average Daily Traffic - One Interchange Alternative

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-13c



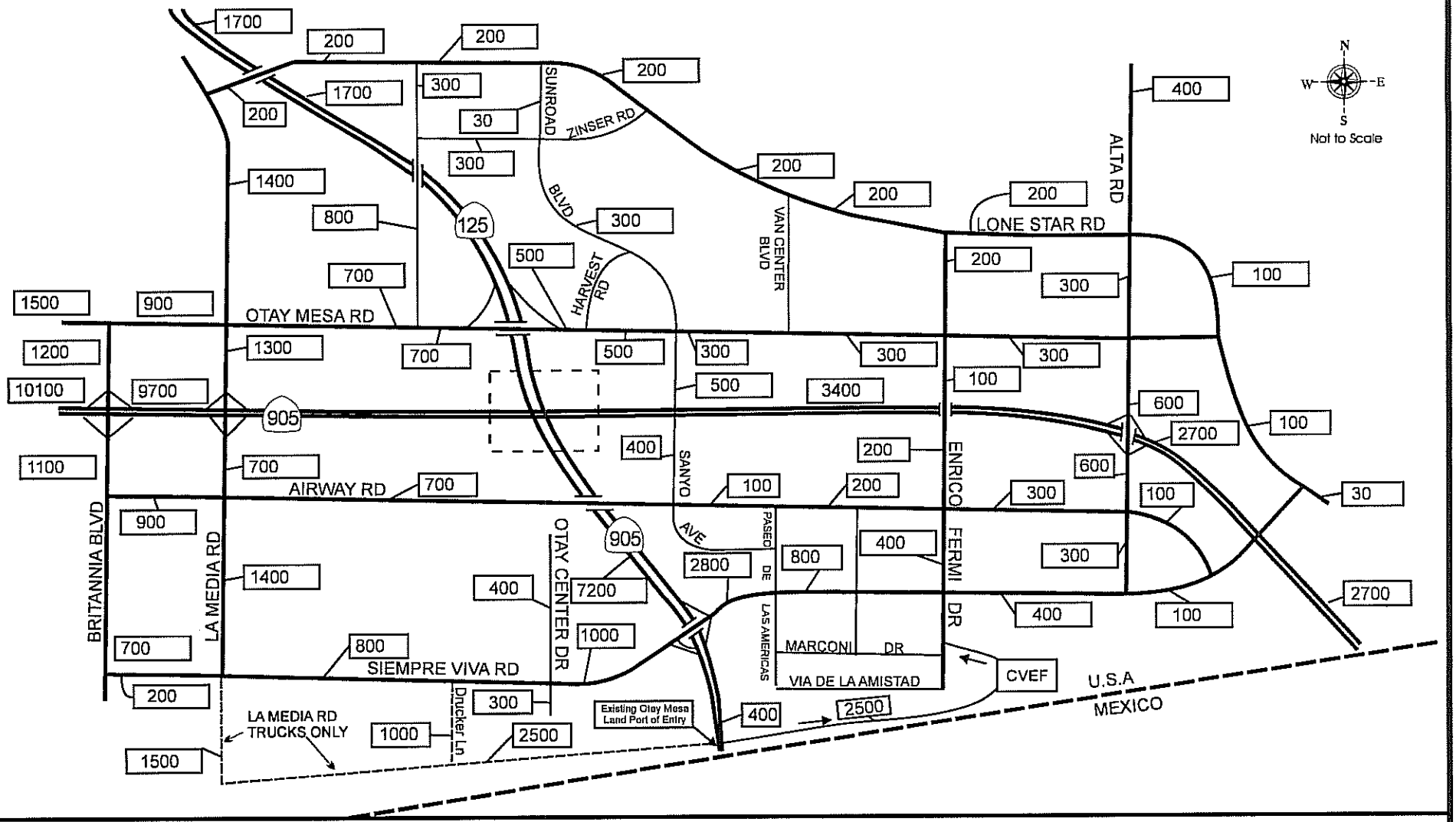
Opening Year (2015) Daily Truck Trips - One Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-14a



Opening Year (2015) Daily Truck Trips - One Interchange Alternative

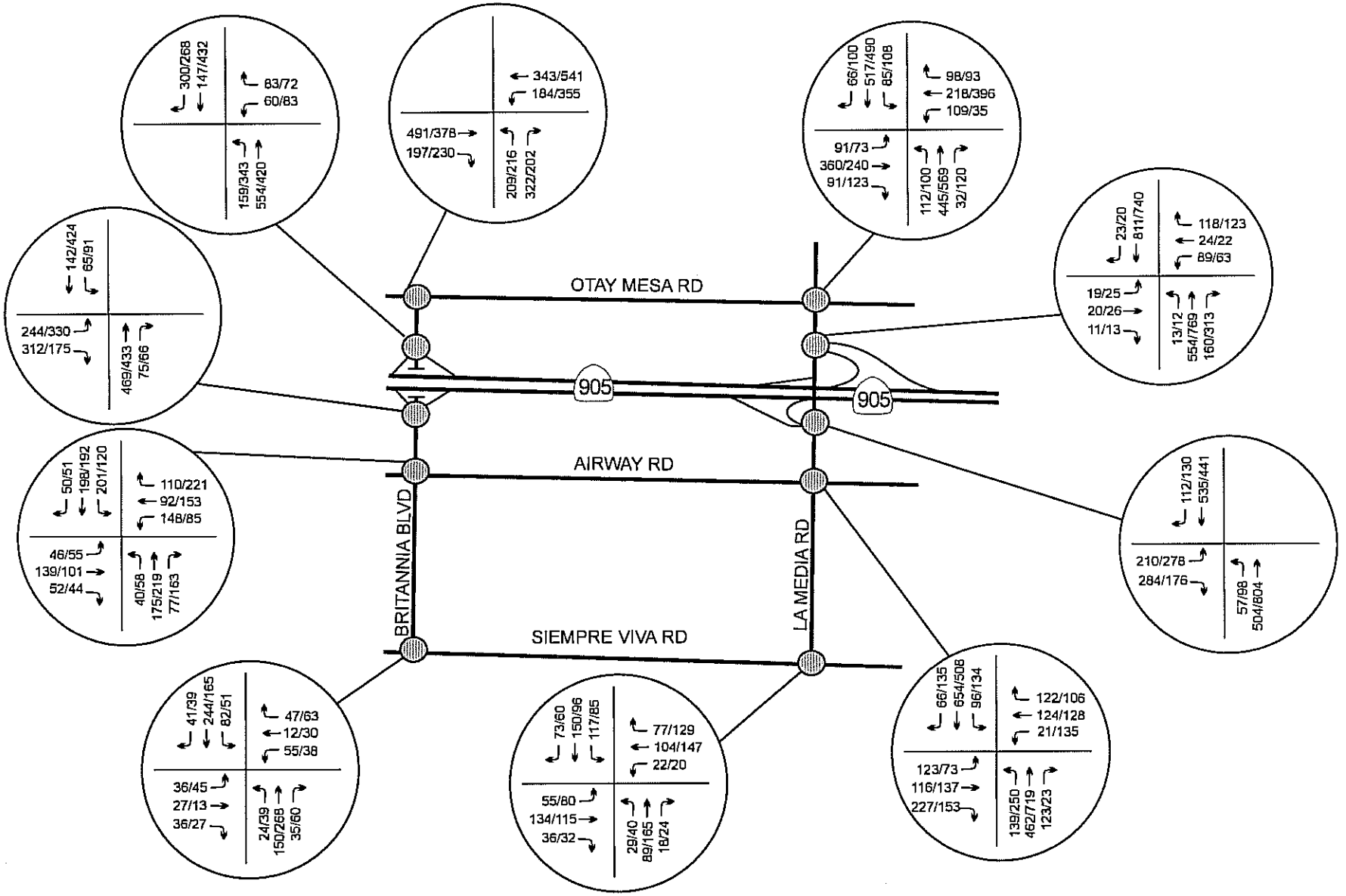
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-14b

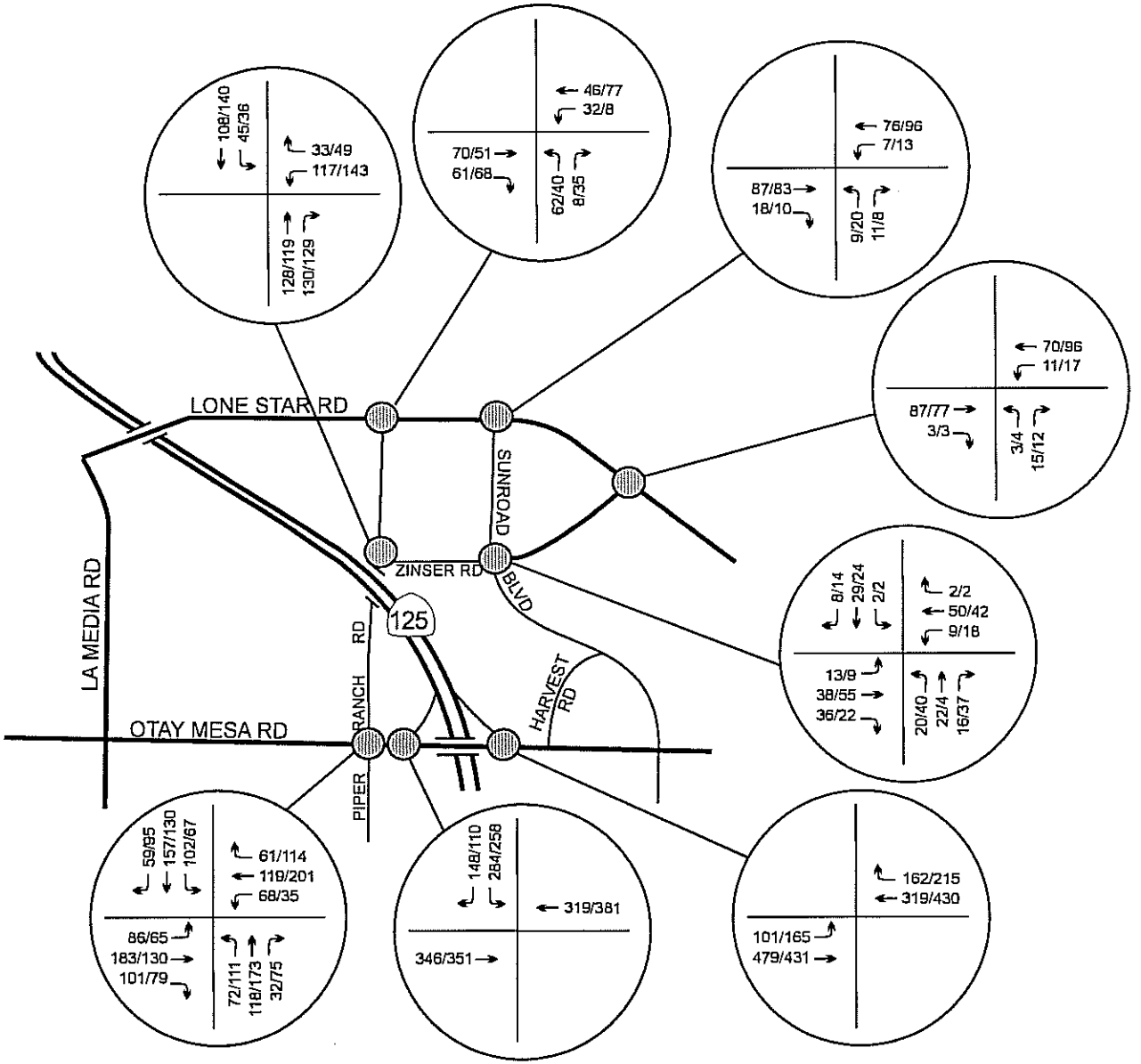


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-15a

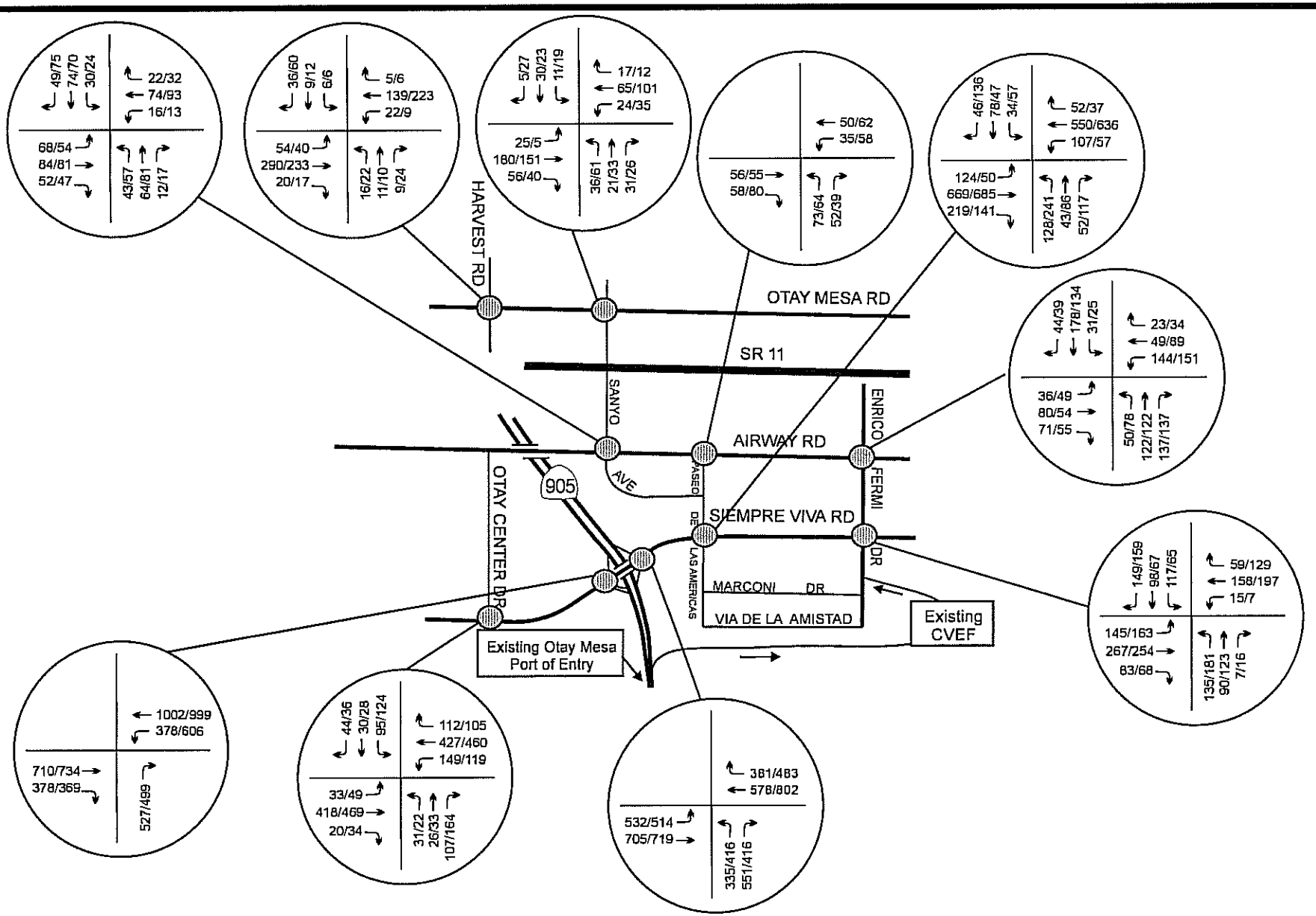


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-15b

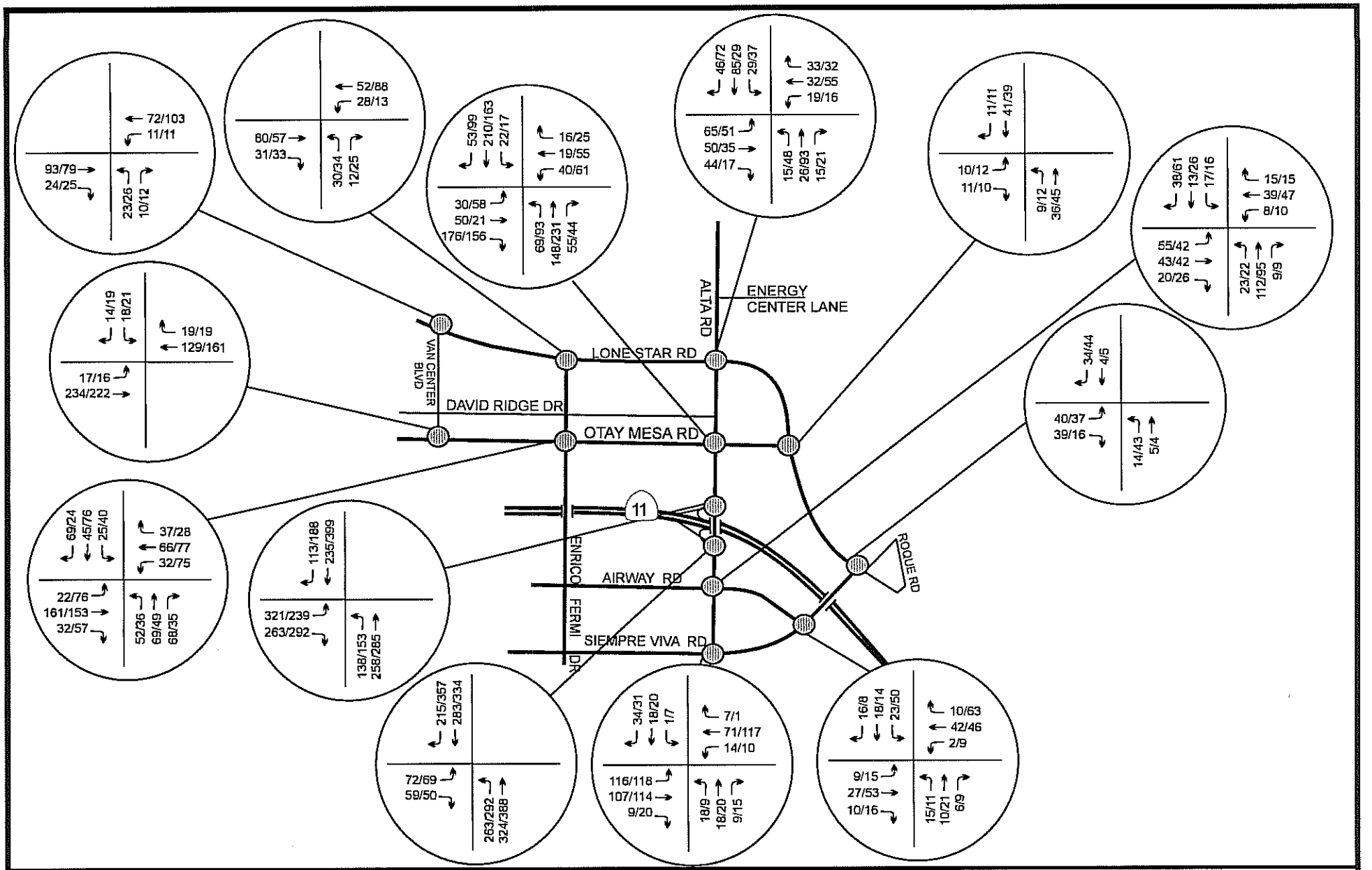


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-15c

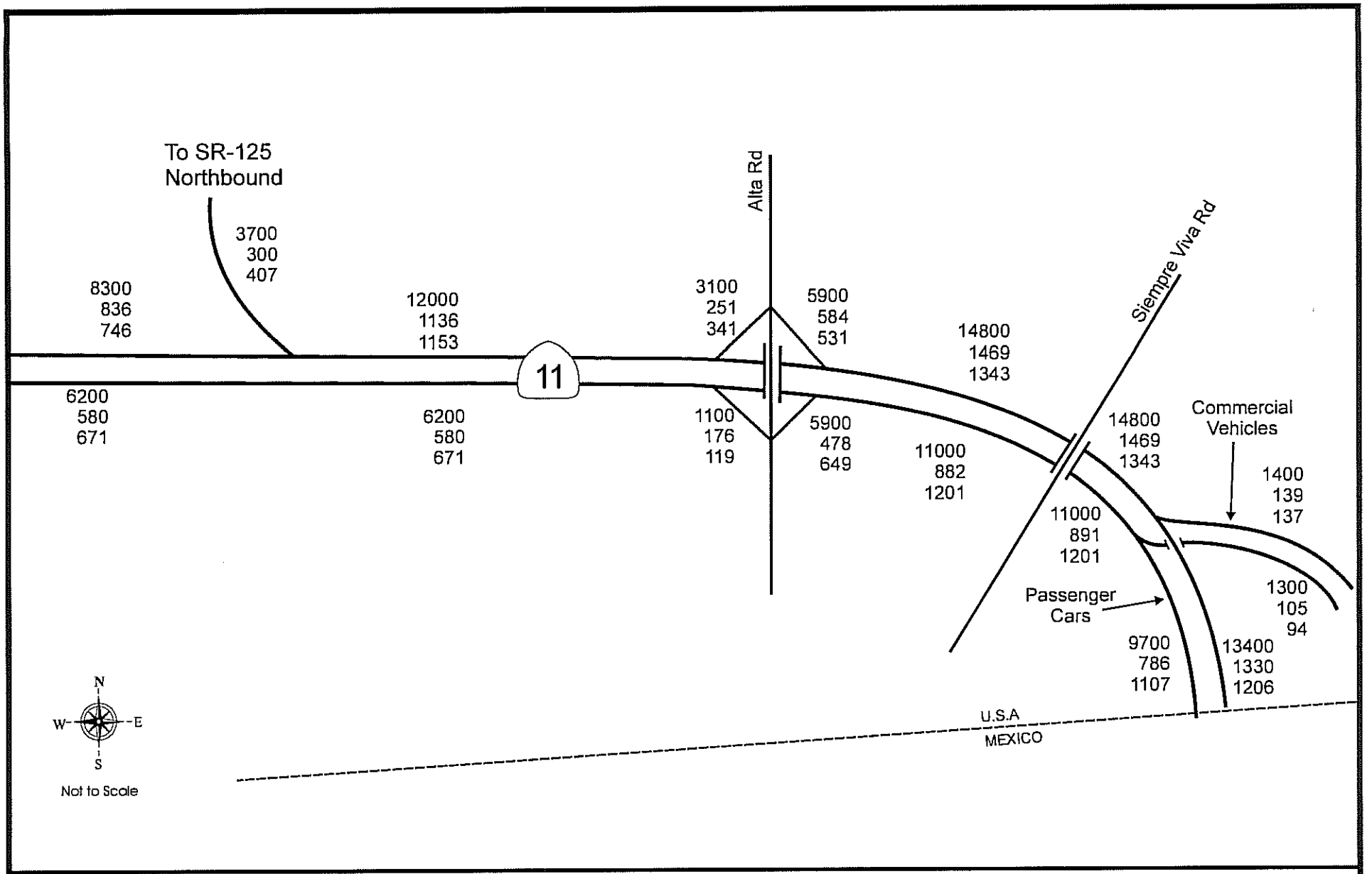


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-15d

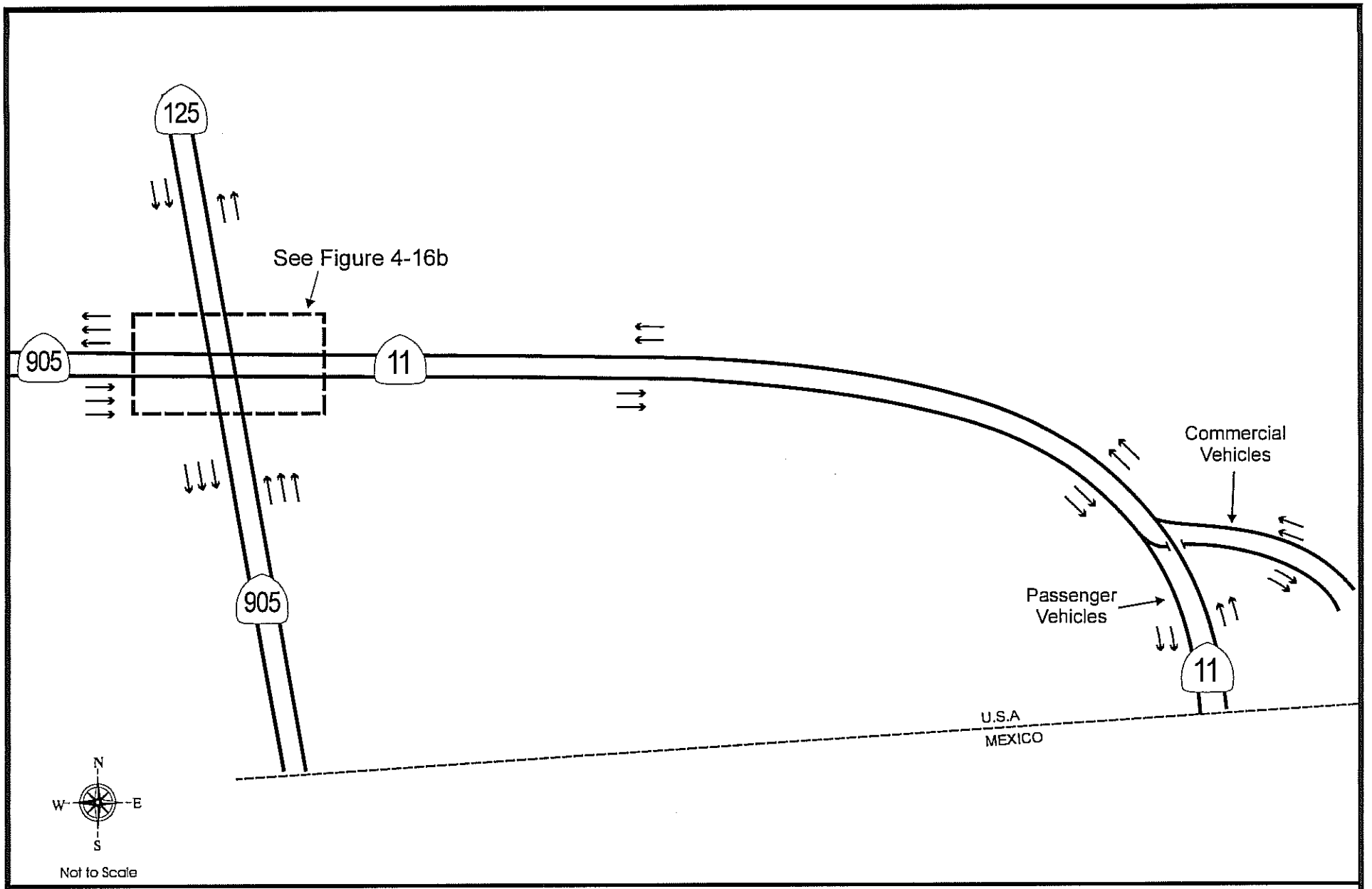


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - One Interchange Alternative

Legend

XXXXX	Average Daily Traffic
XXXX	AM Peak Hour
XXXX	PM Peak Hour

Figure 4-15e

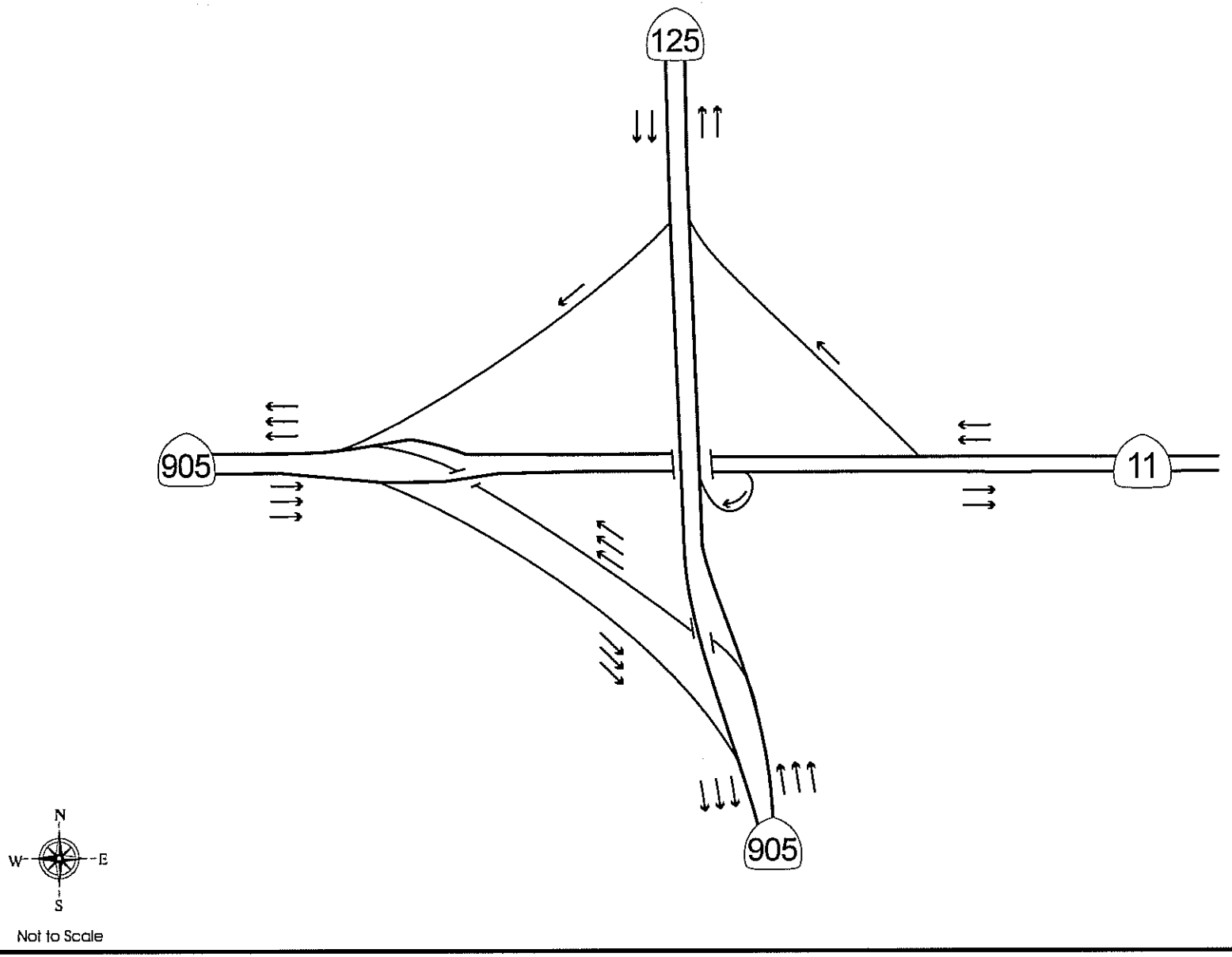


Opening Year (2015) SR-11 Lane Geometry
No Interchange Alternative

Legend

← Number of Lanes

Figure 4-16a

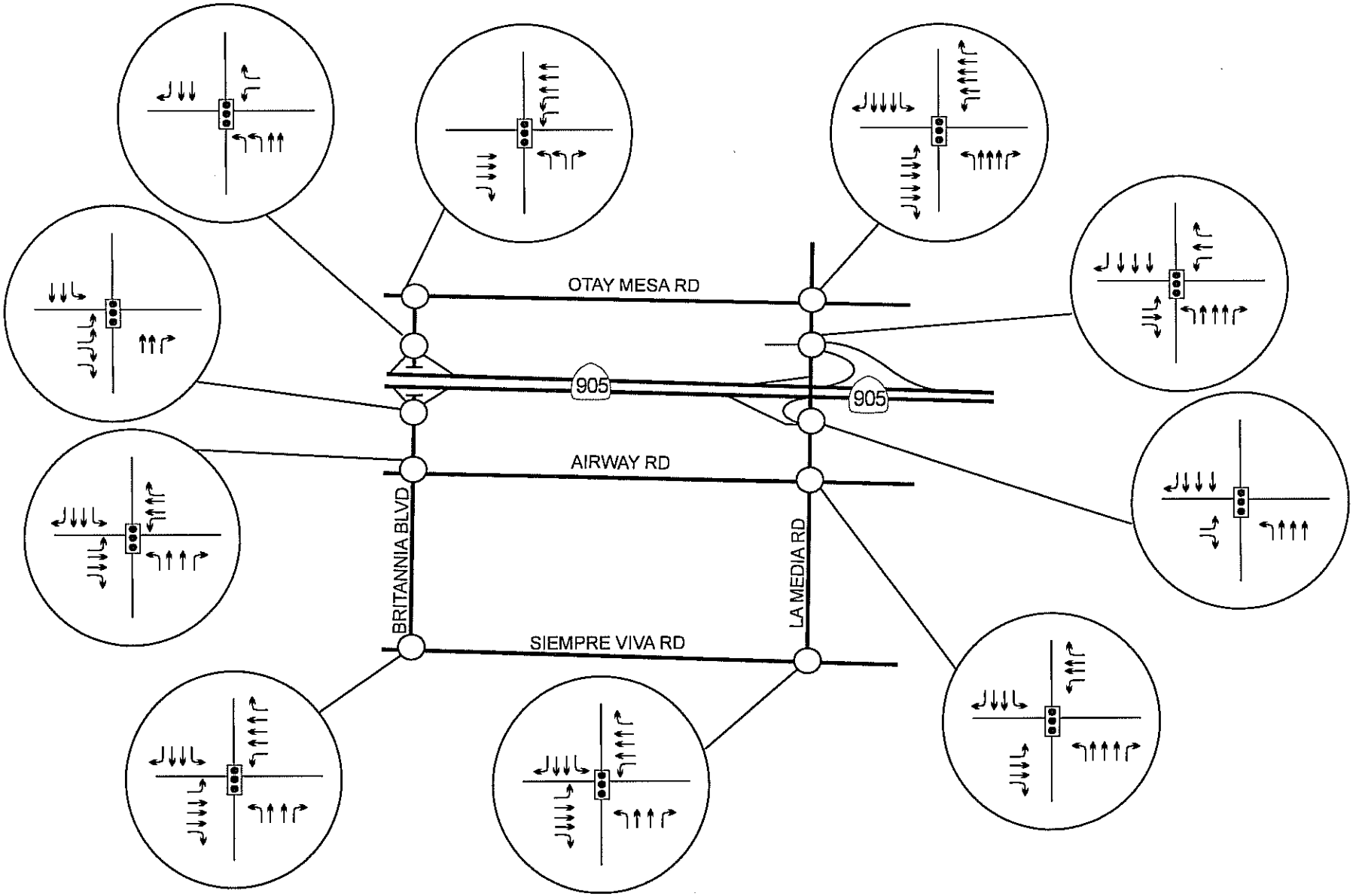


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
No Interchange Alternative

Legend

⟵ Number of Lanes

Figure 4-16b

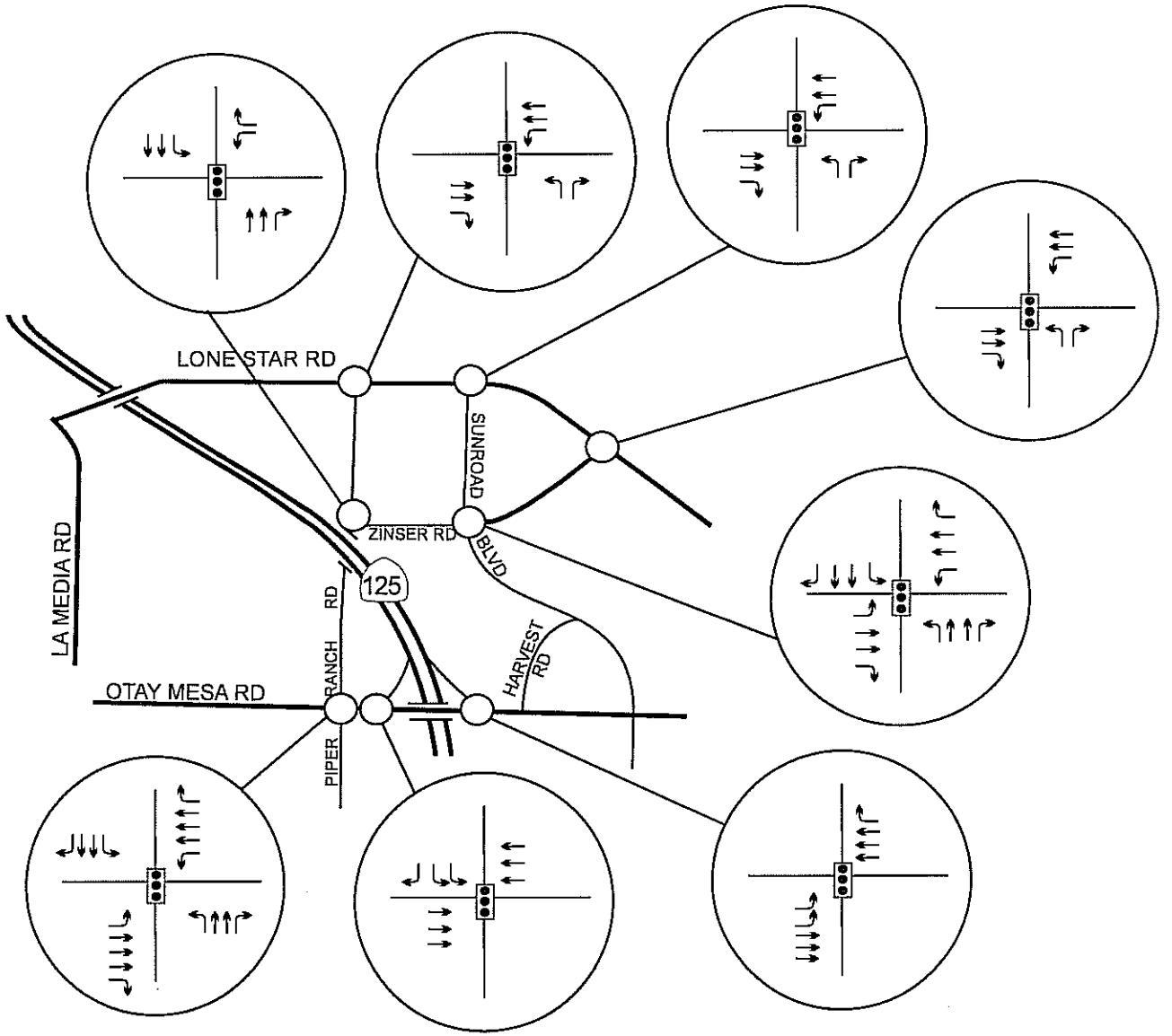


Opening Year (2015) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-17a

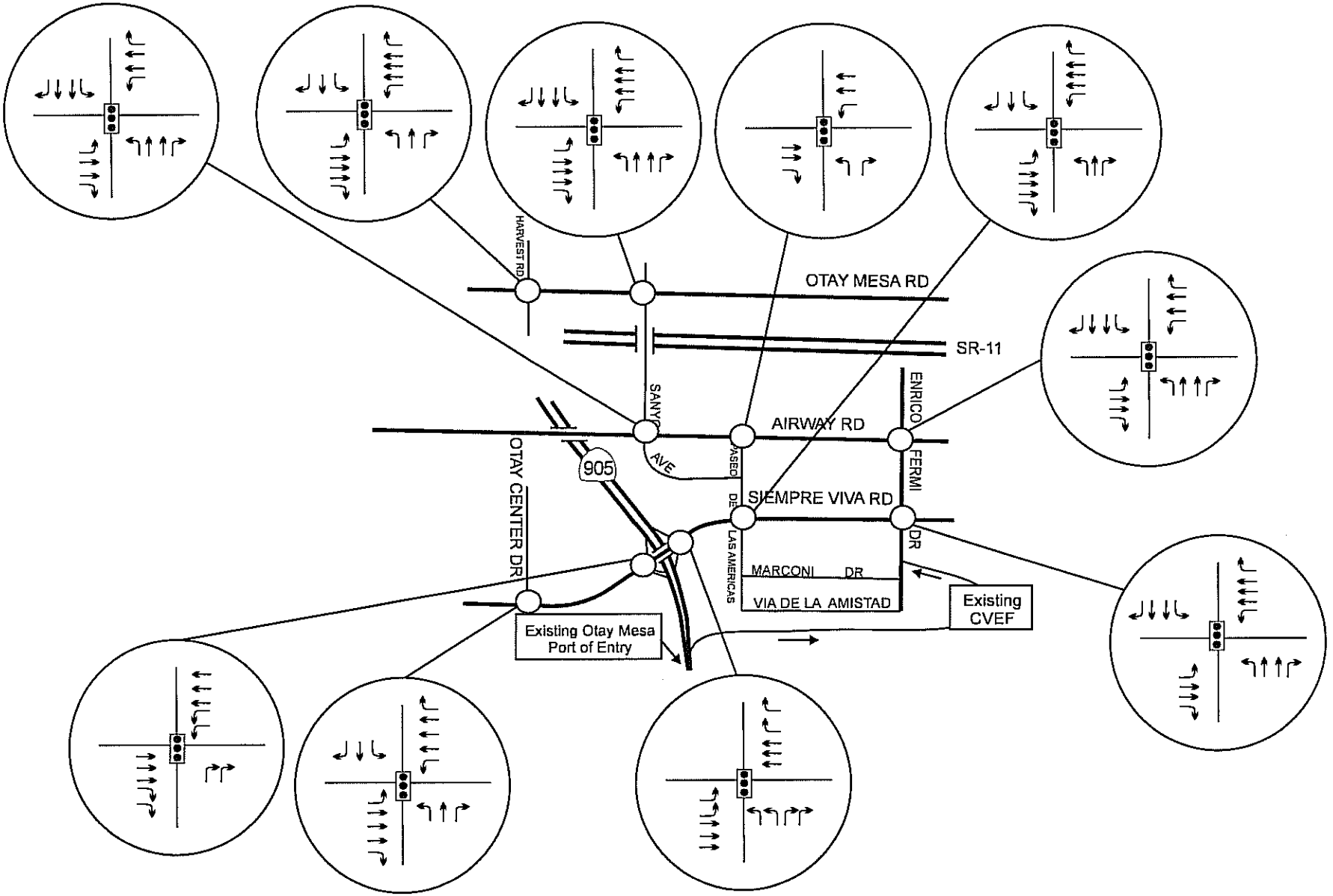


Opening Year (2015) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-17b

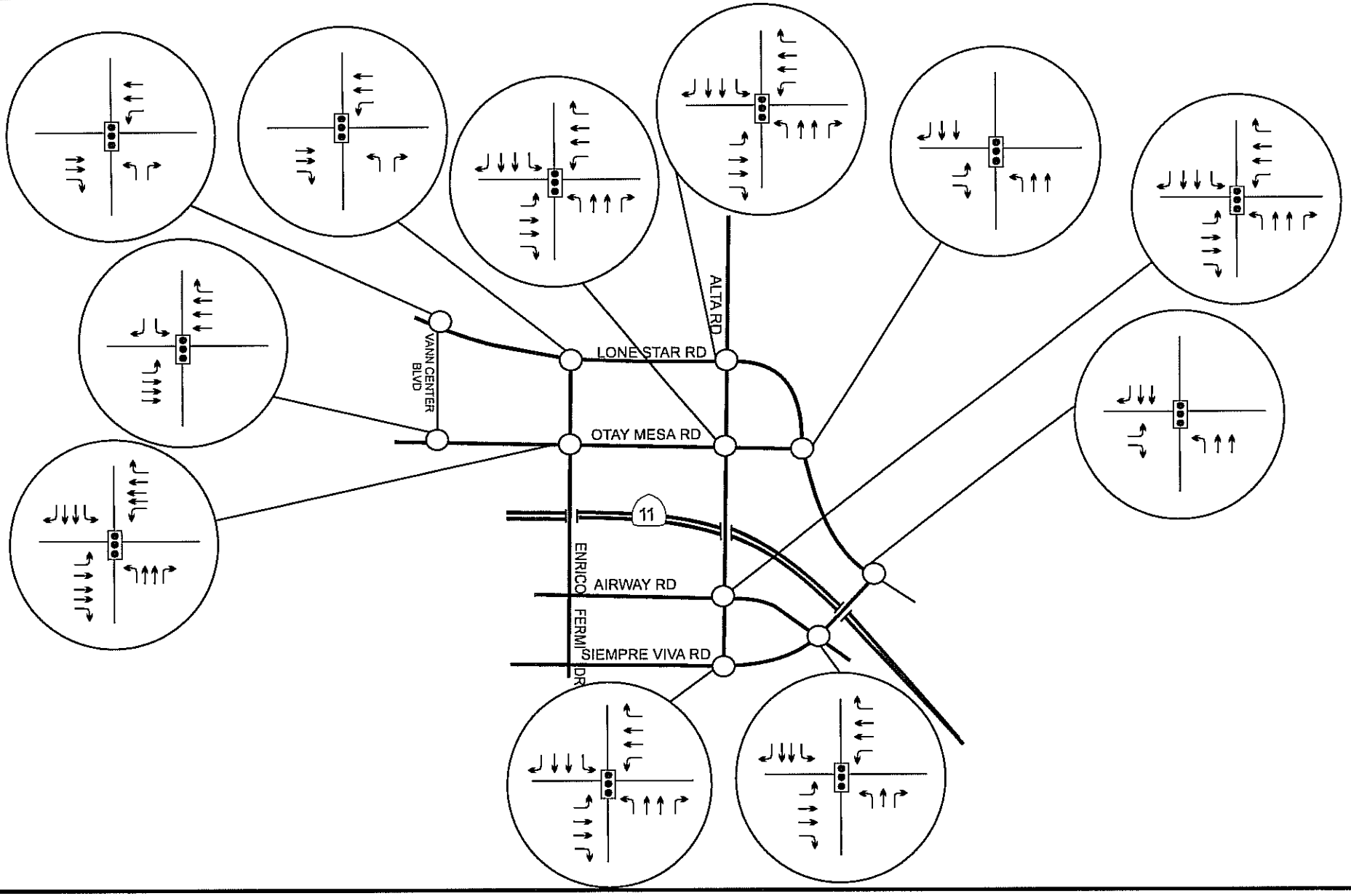


Opening Year (2015) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-17c

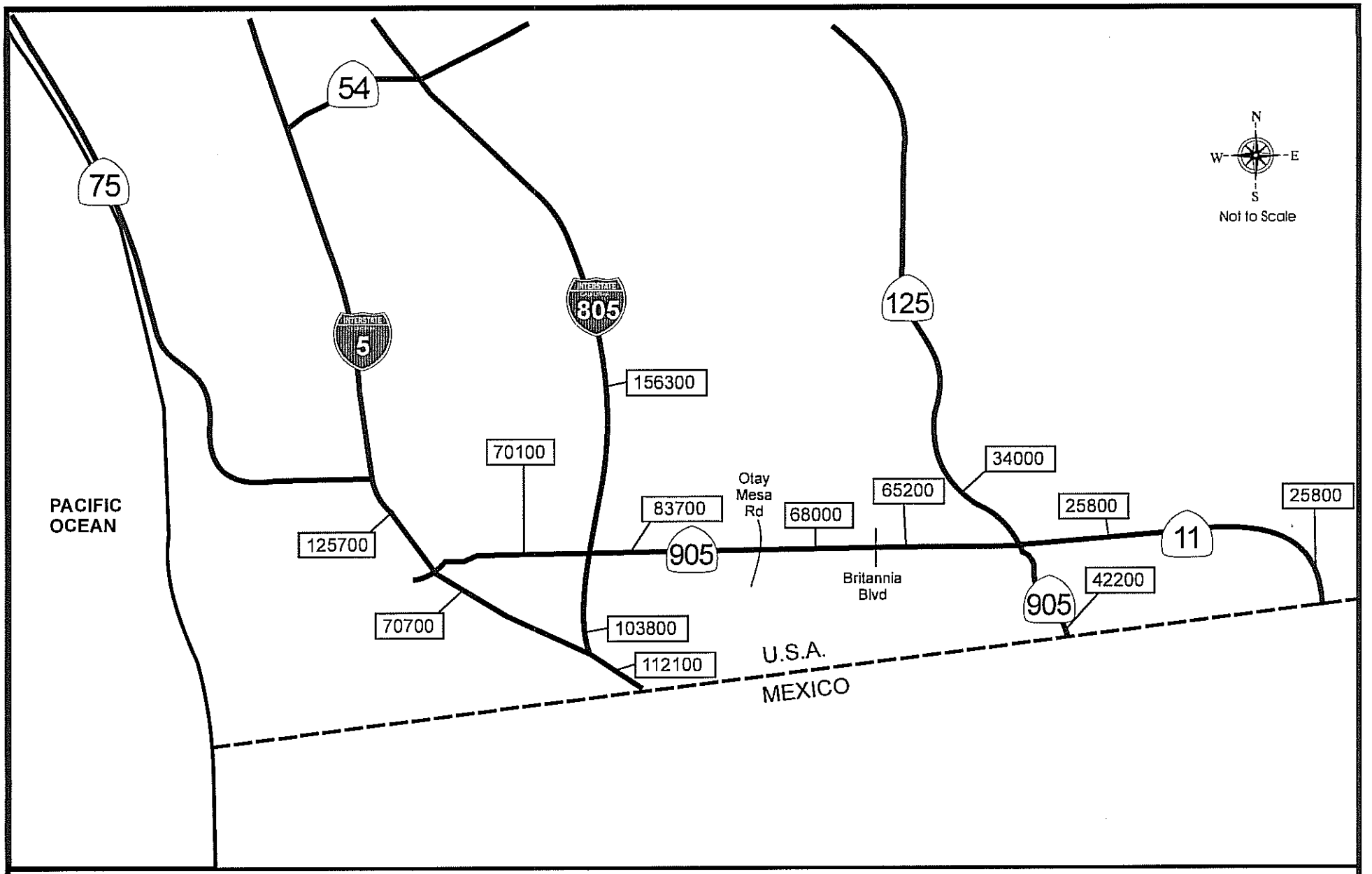


Opening Year (2015) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 4-17d



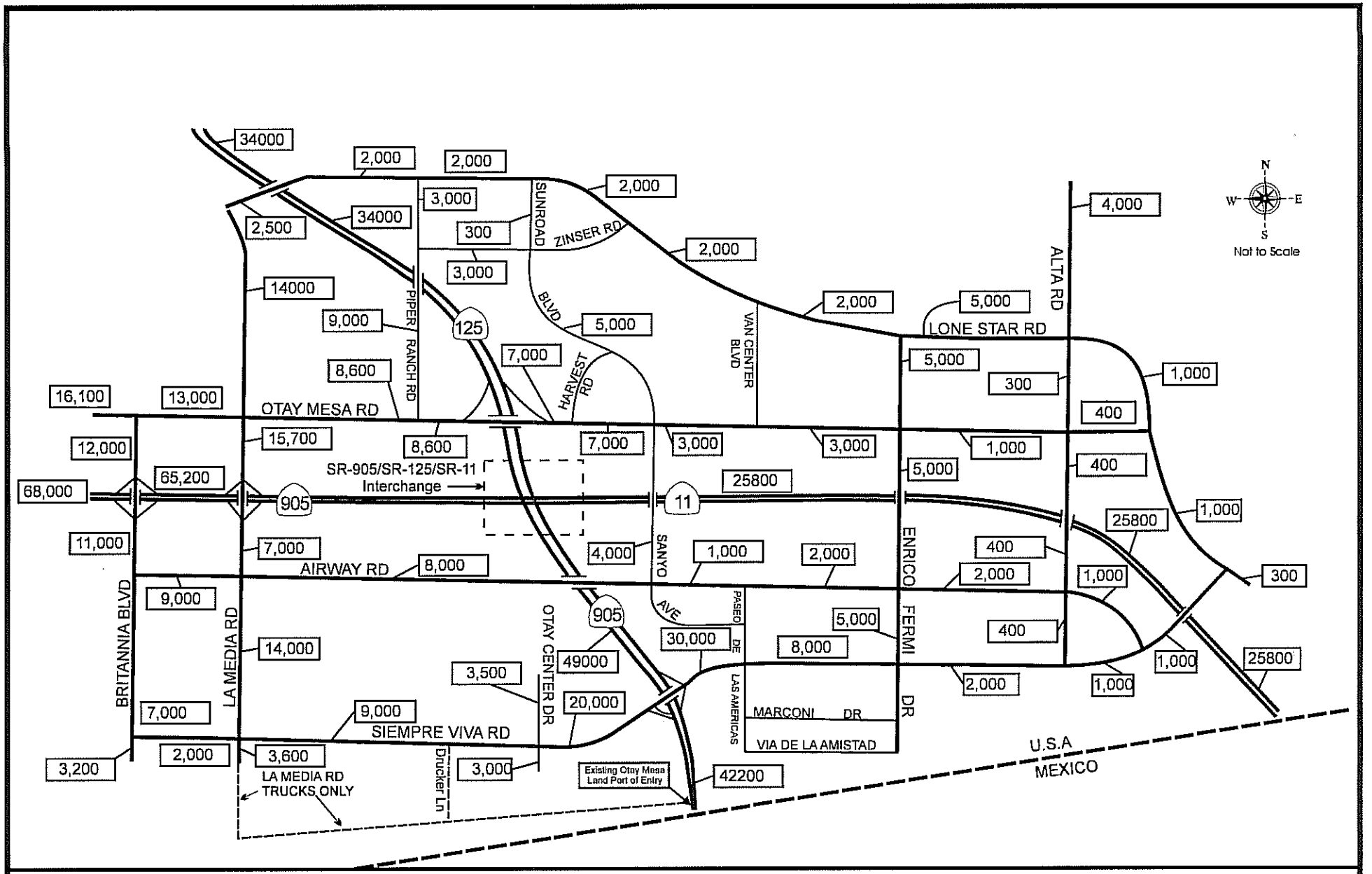
Opening Year (2015) Average Daily Traffic - No Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-18a

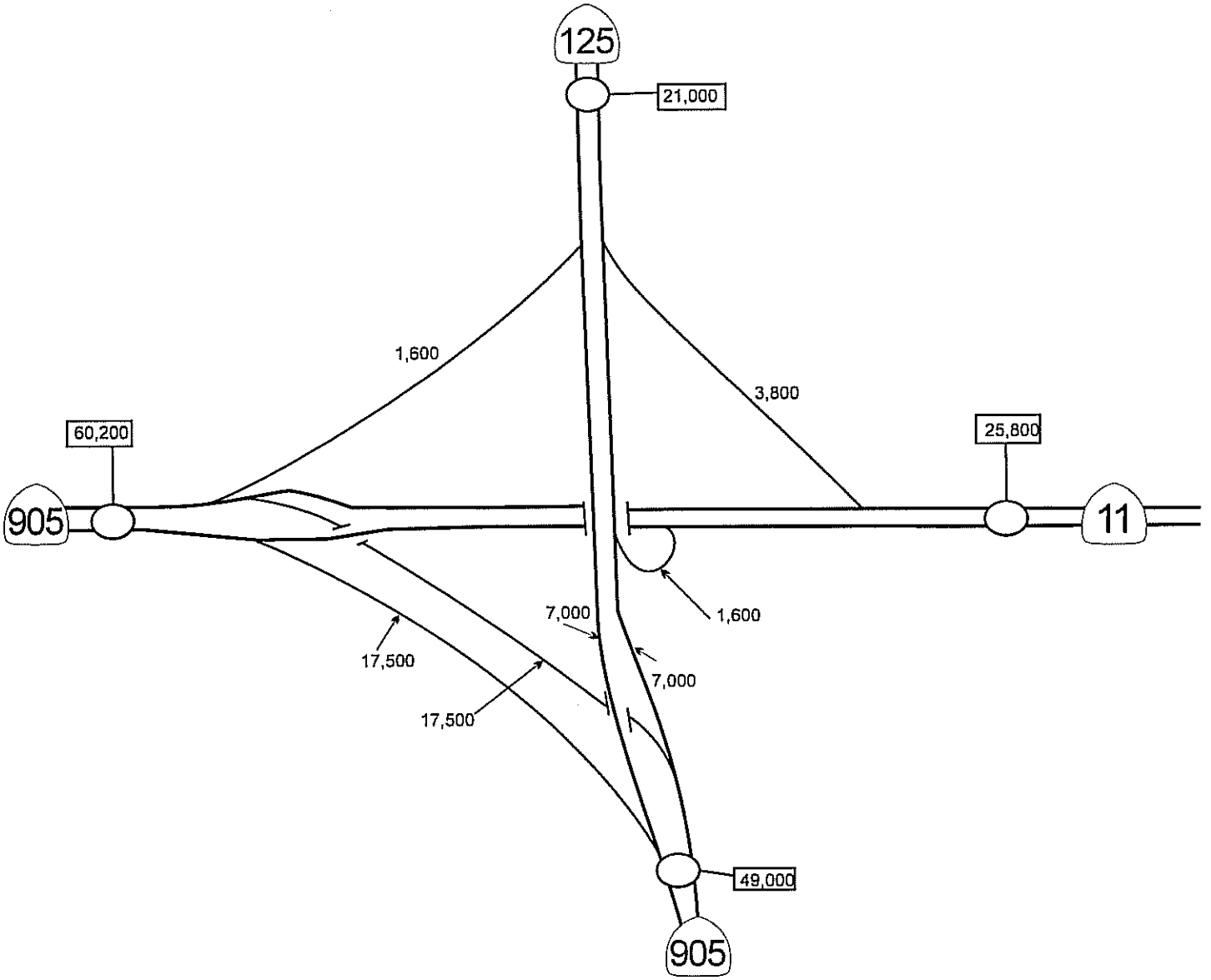


Opening Year (2015) Average Daily Traffic - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 4-18b

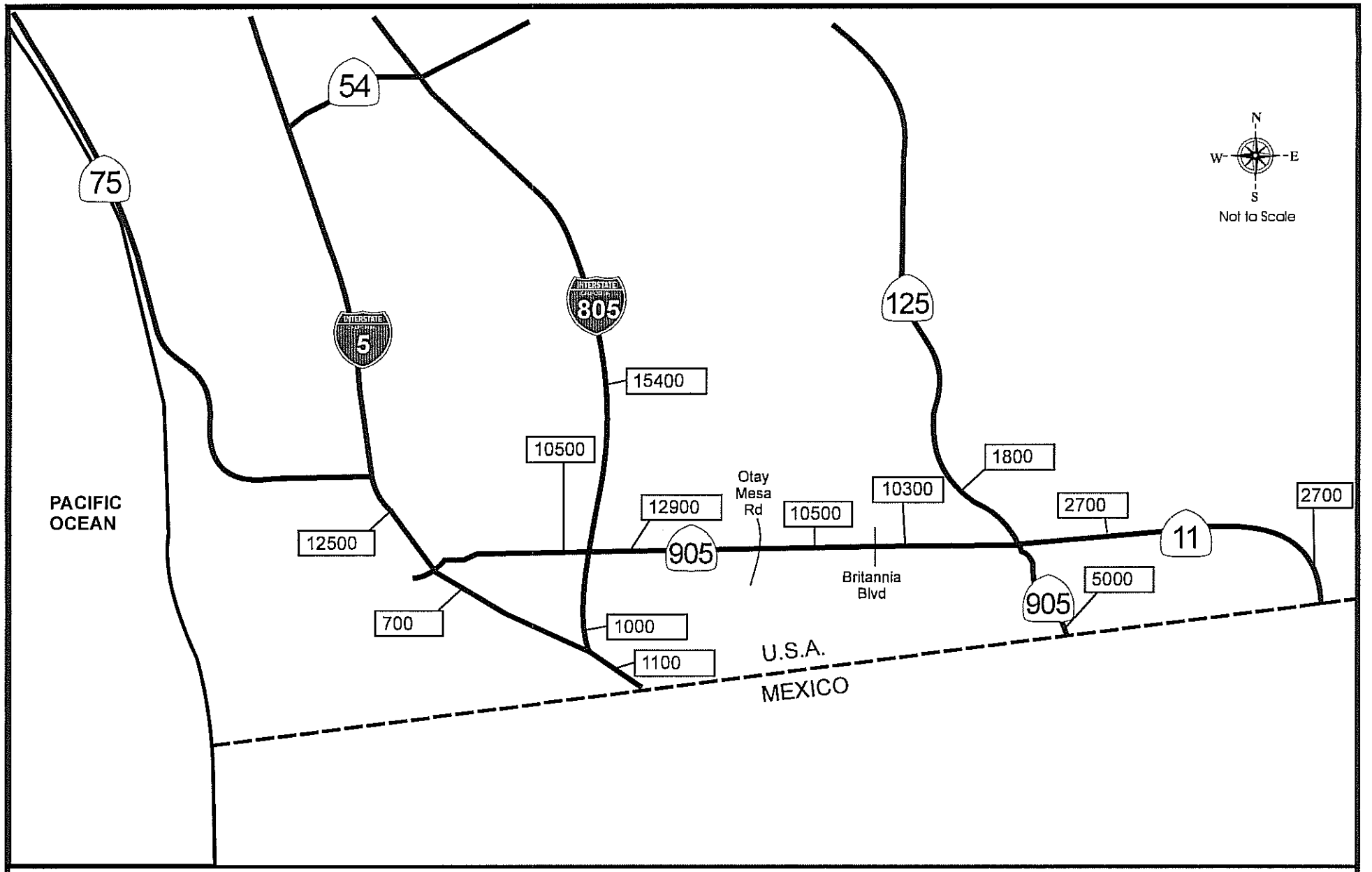


Opening Year (2015) Average Daily Traffic - No Interchange Alternative

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-18c



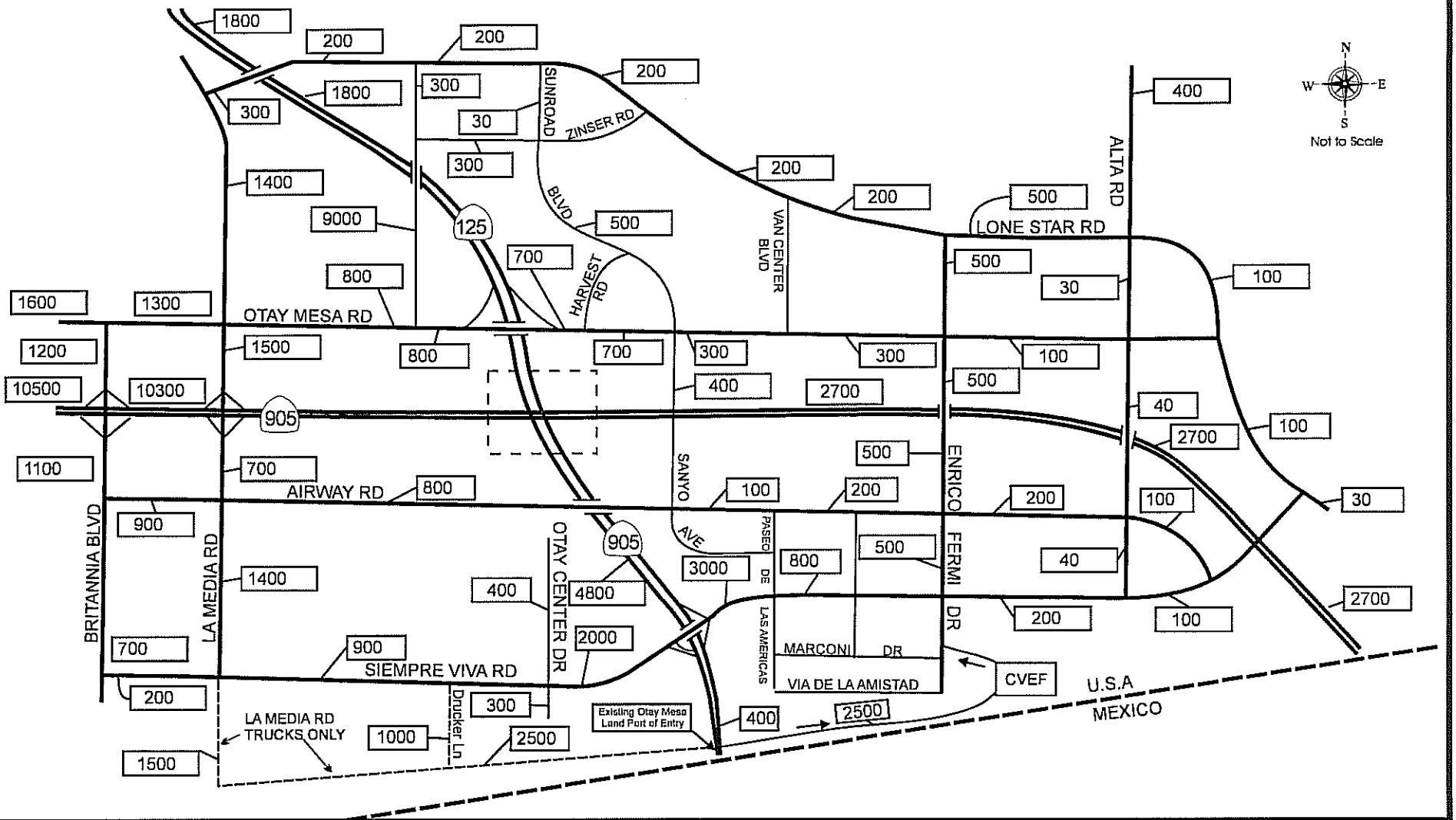
Opening Year (2015) Daily Truck Trips - No Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-19a



Opening Year (2015) Daily Truck Trips - No Interchange Alternative

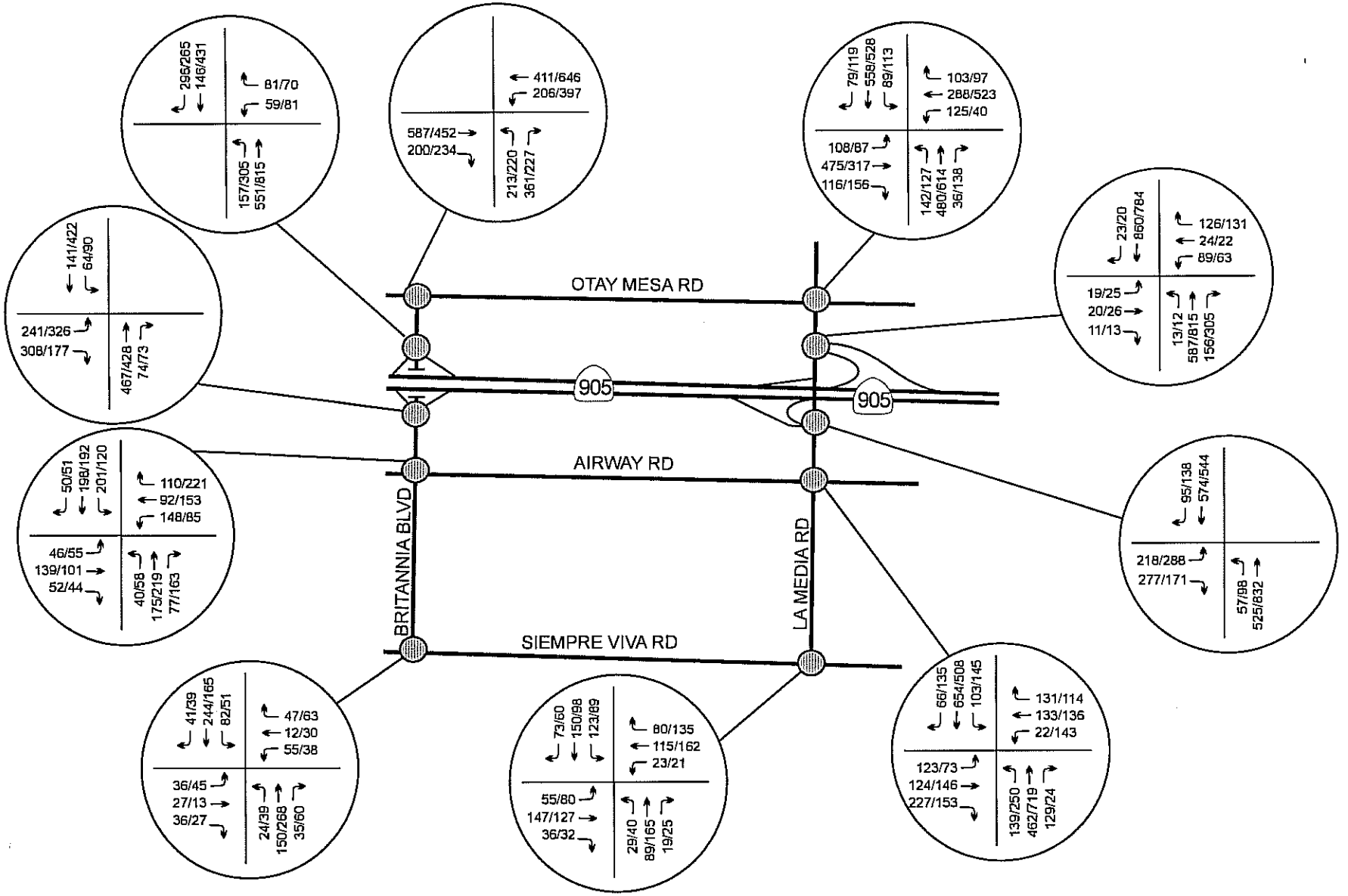
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-19b

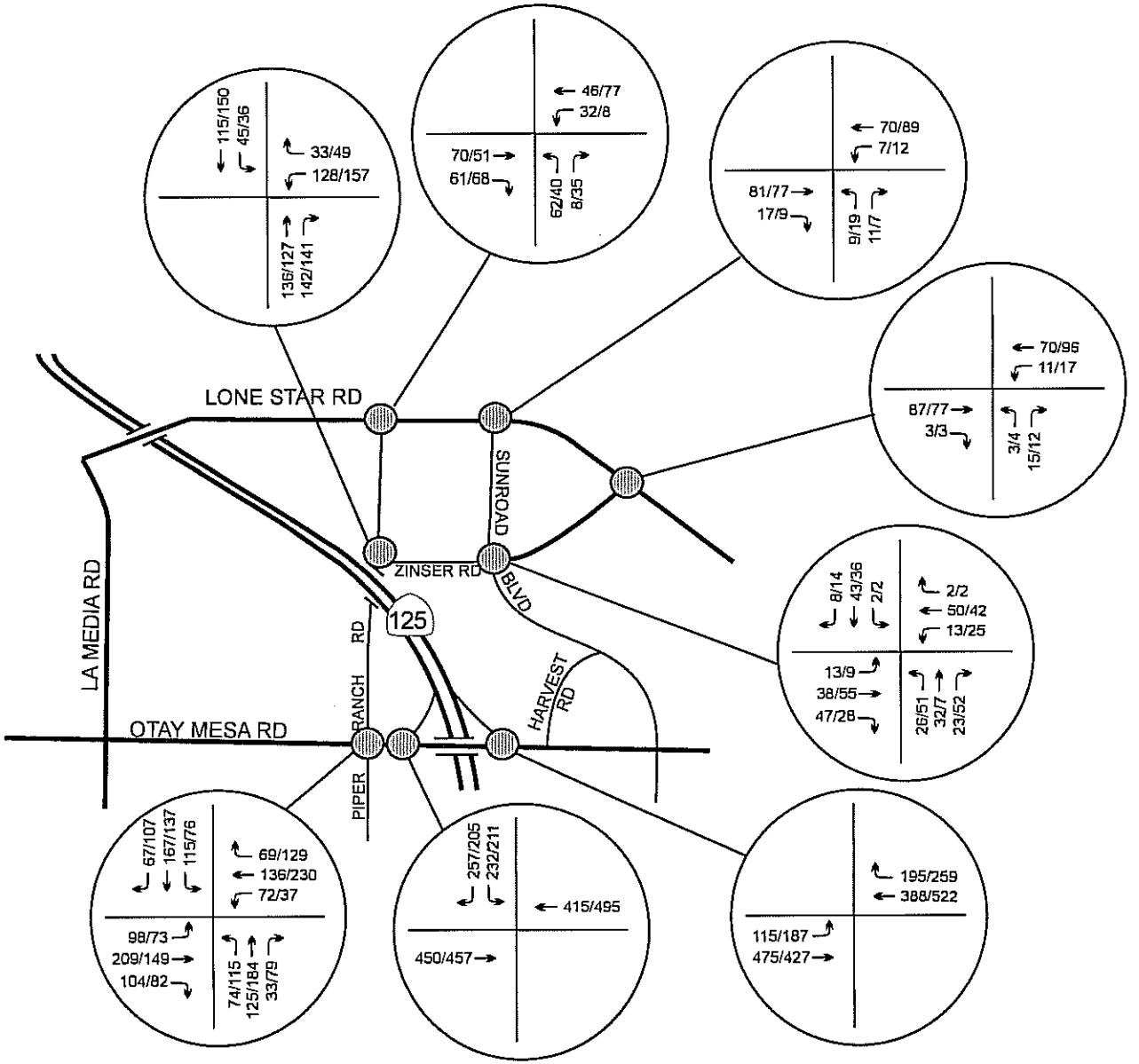


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-20a

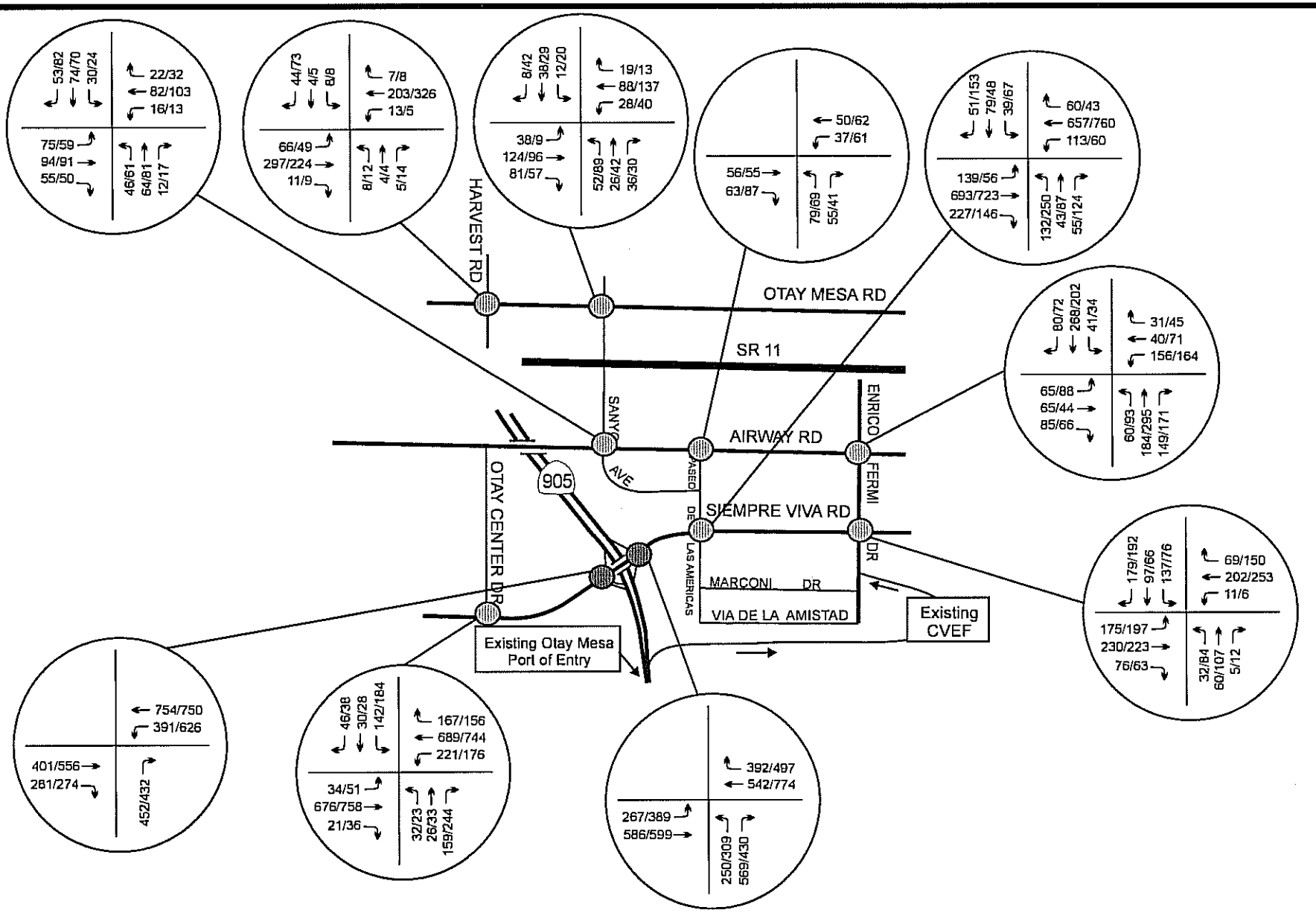


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-20b

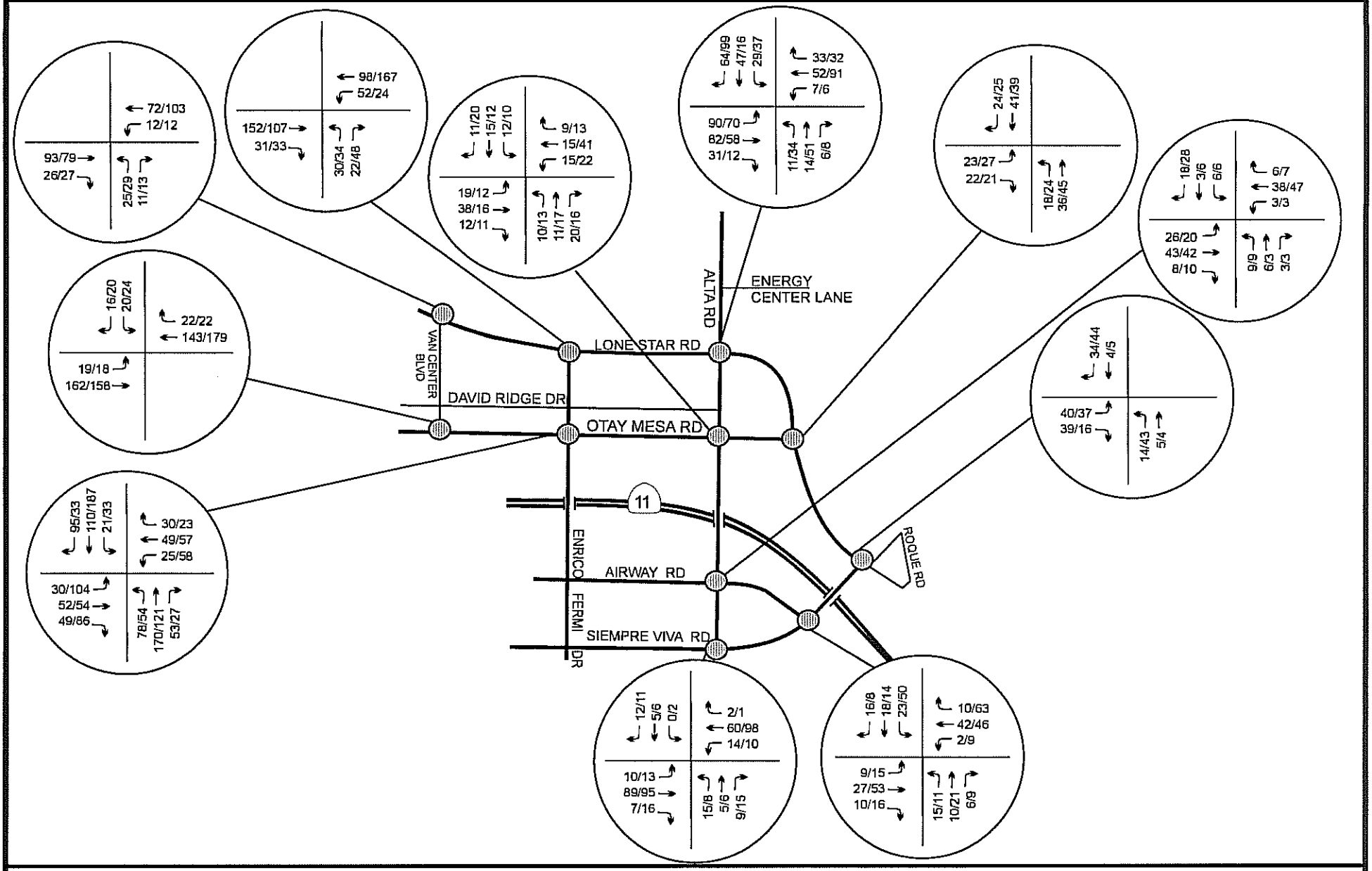


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-20c

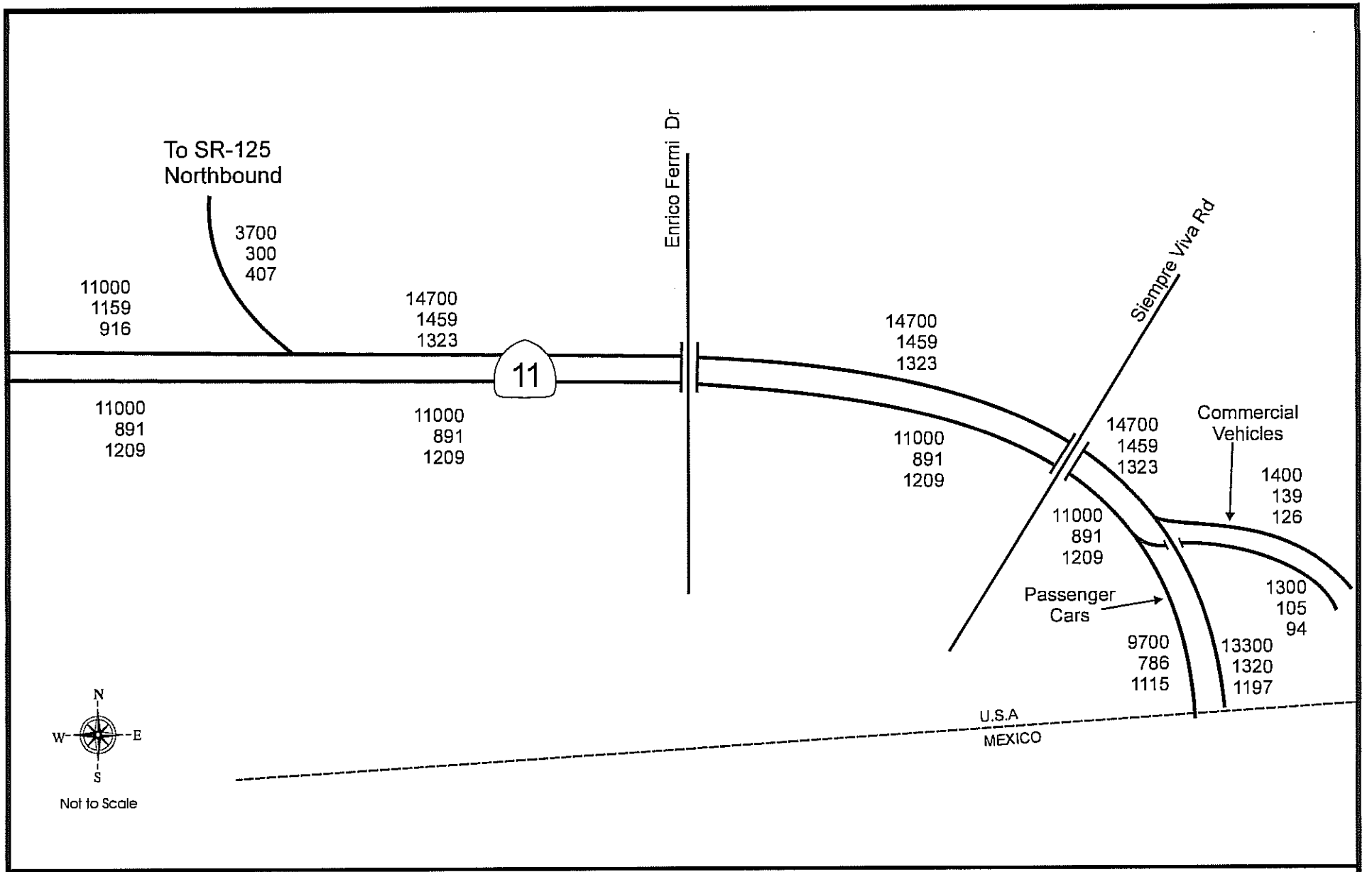


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-20d

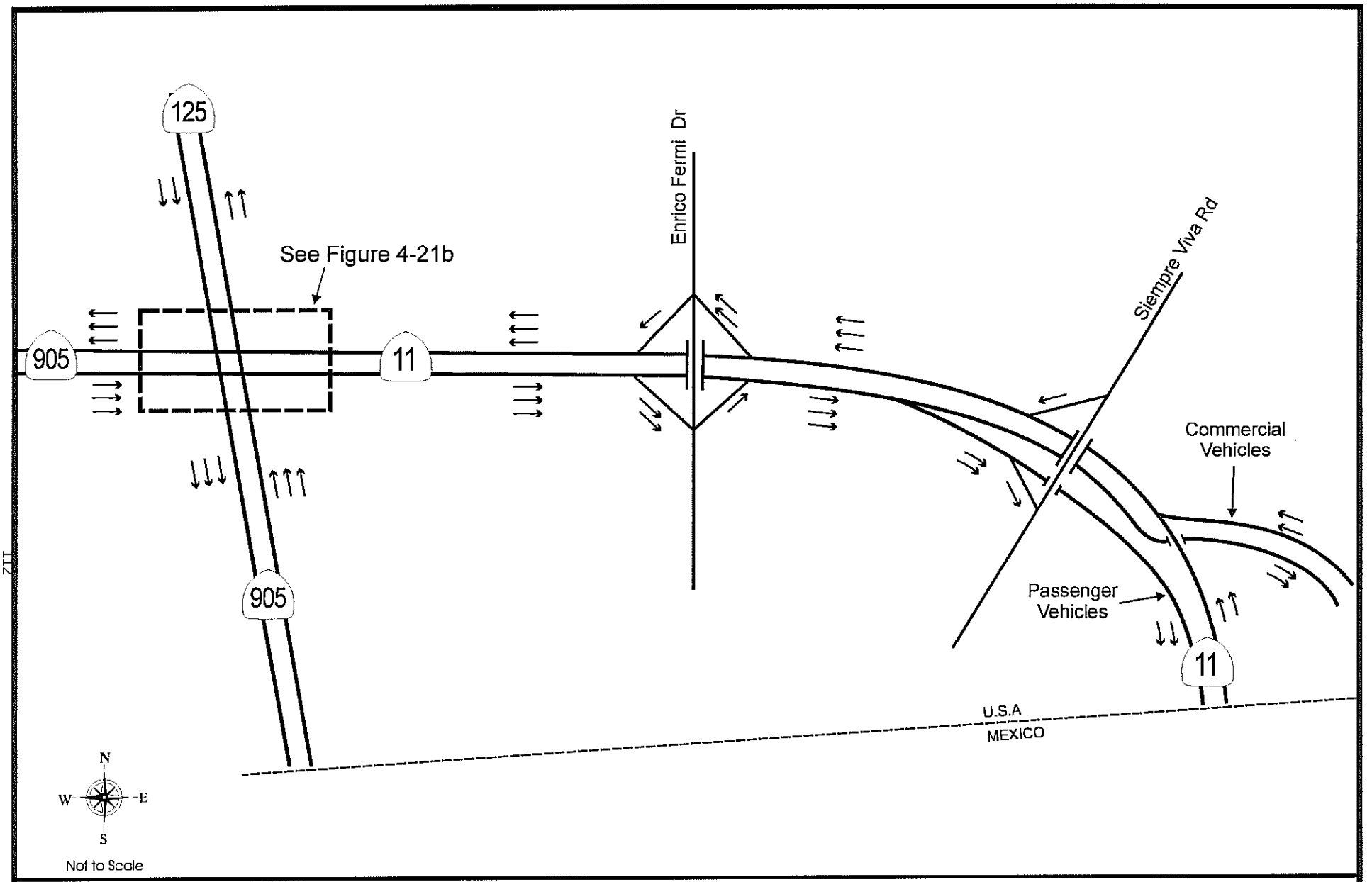


Opening Year (2015) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - No Interchange Alternative

Legend

XXXXX	Average Daily Traffic
XXXX	AM Peak Hour
XXXX	PM Peak Hour

Figure 4-20e

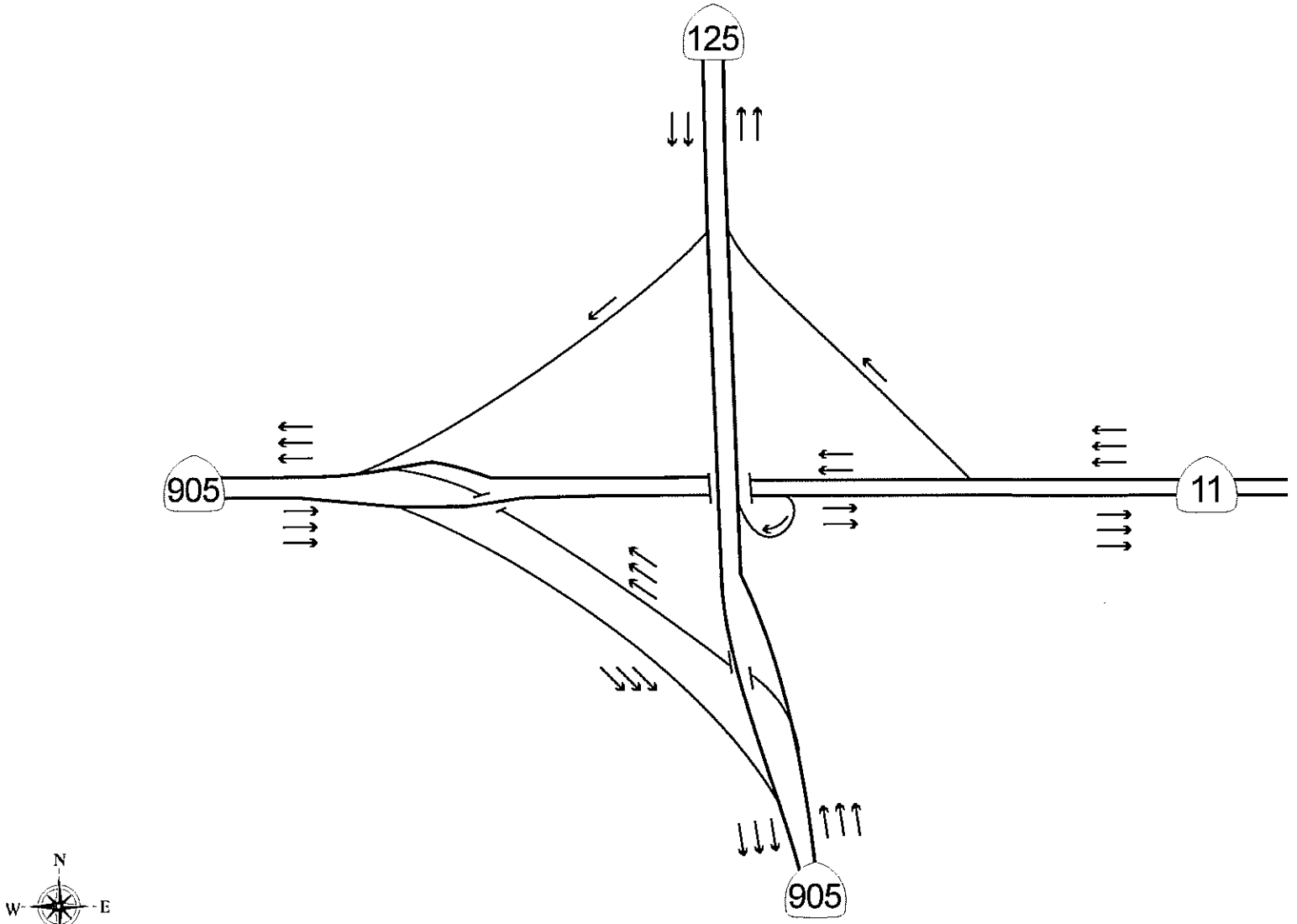


Opening Year (2015) SR-11 Lane Geometry
No Toll/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-21a



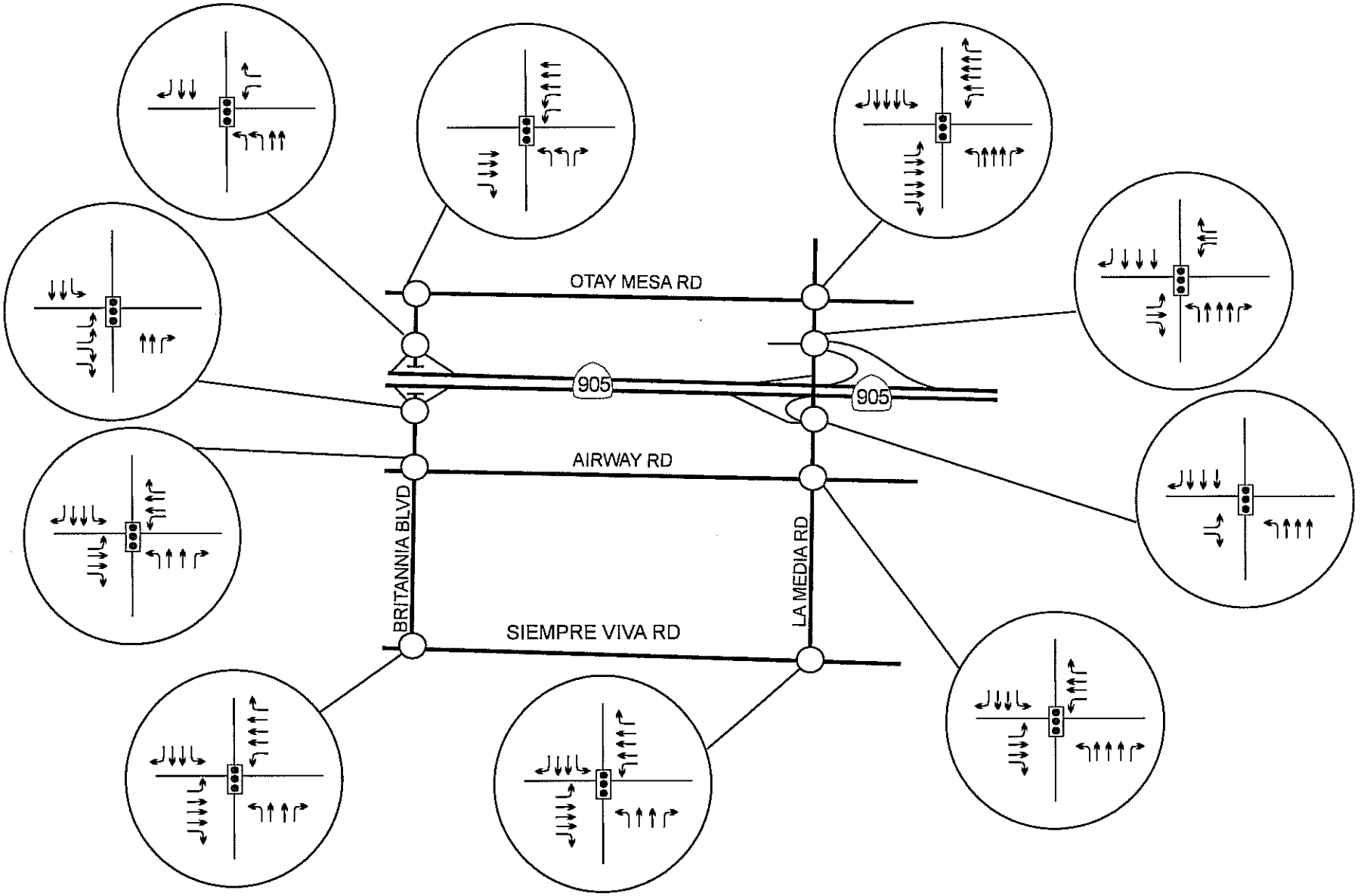
Not to Scale

Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
No Toll/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-21b



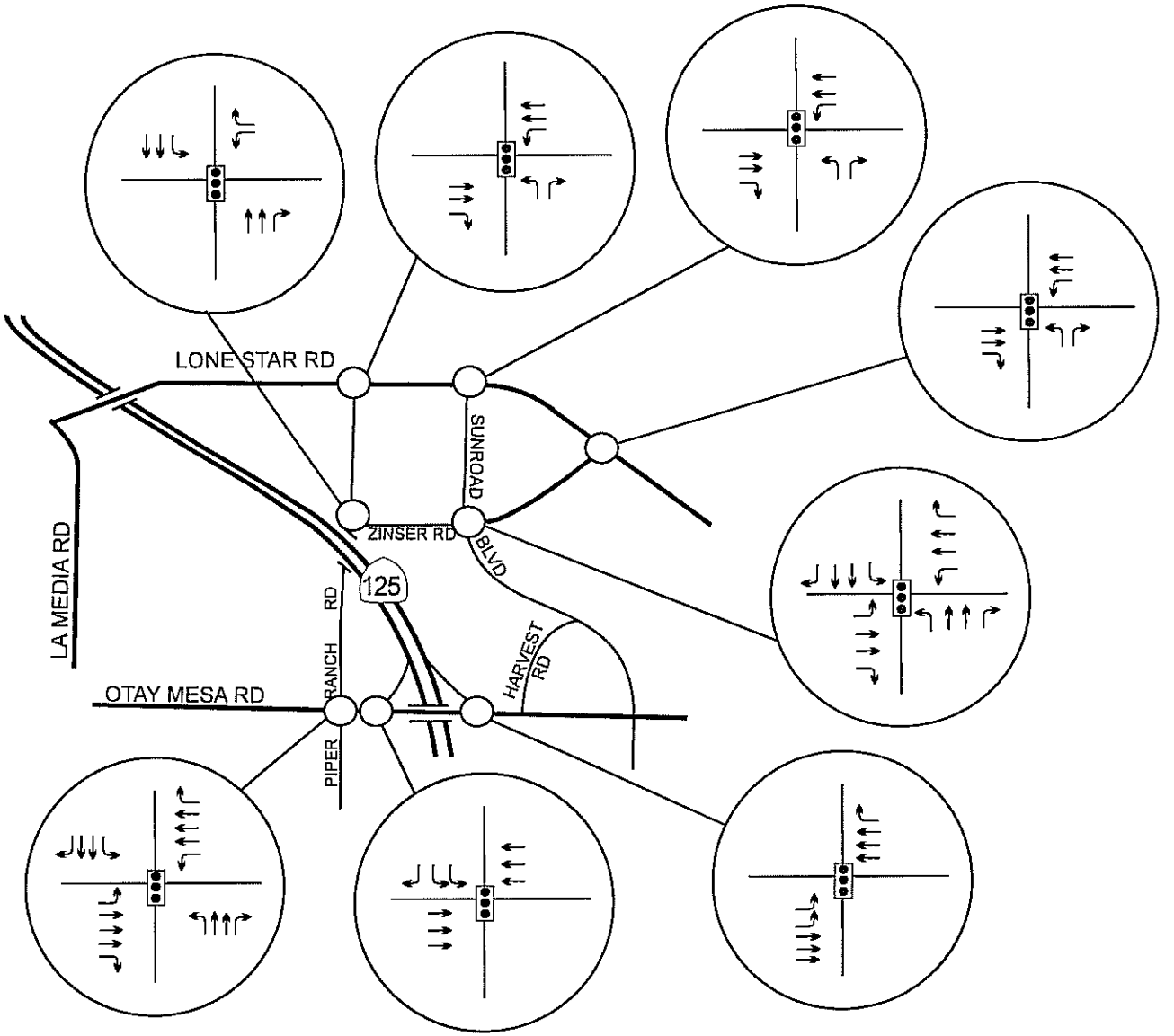
Opening Year (2015) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-22a



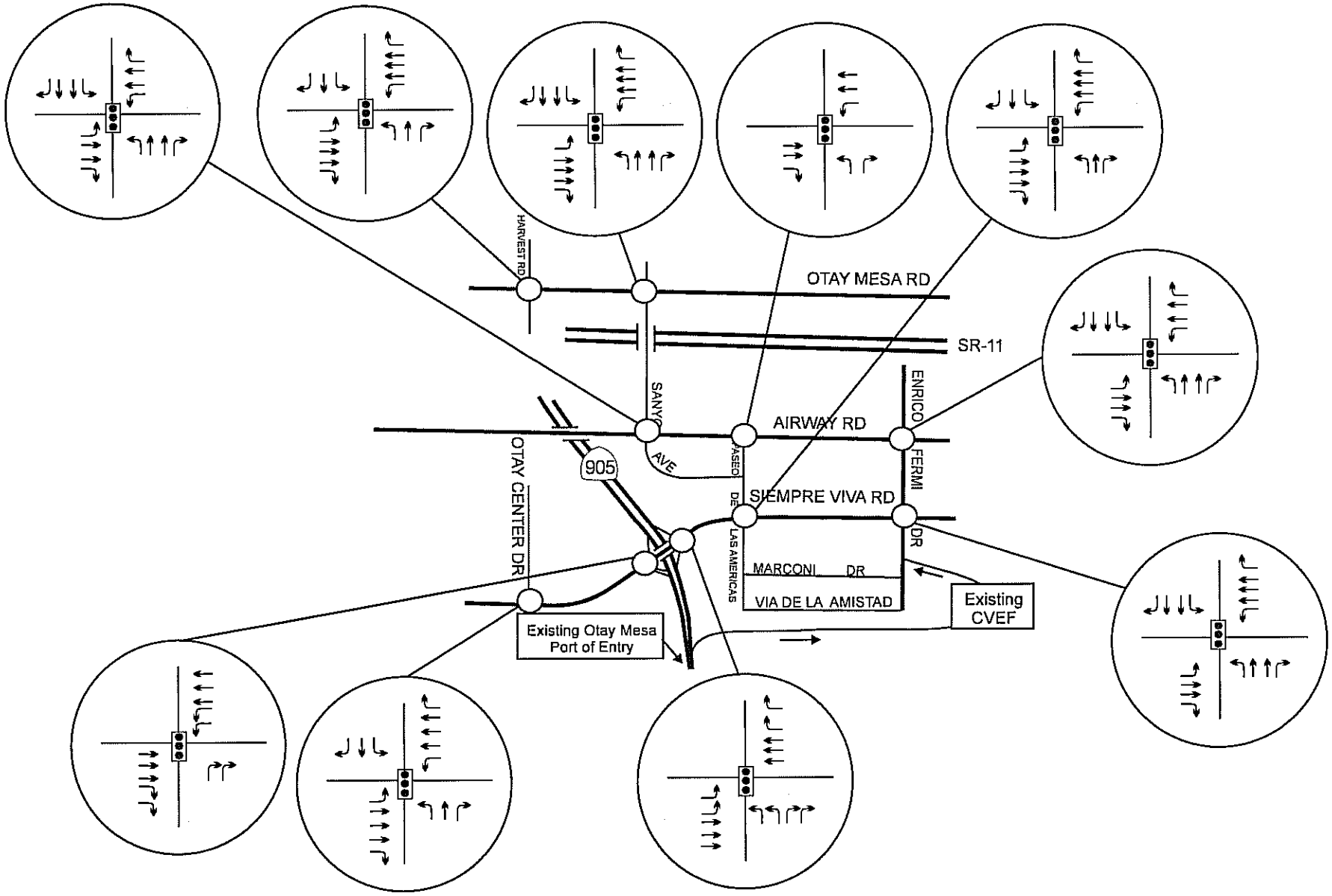
Opening Year (2015) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-22b



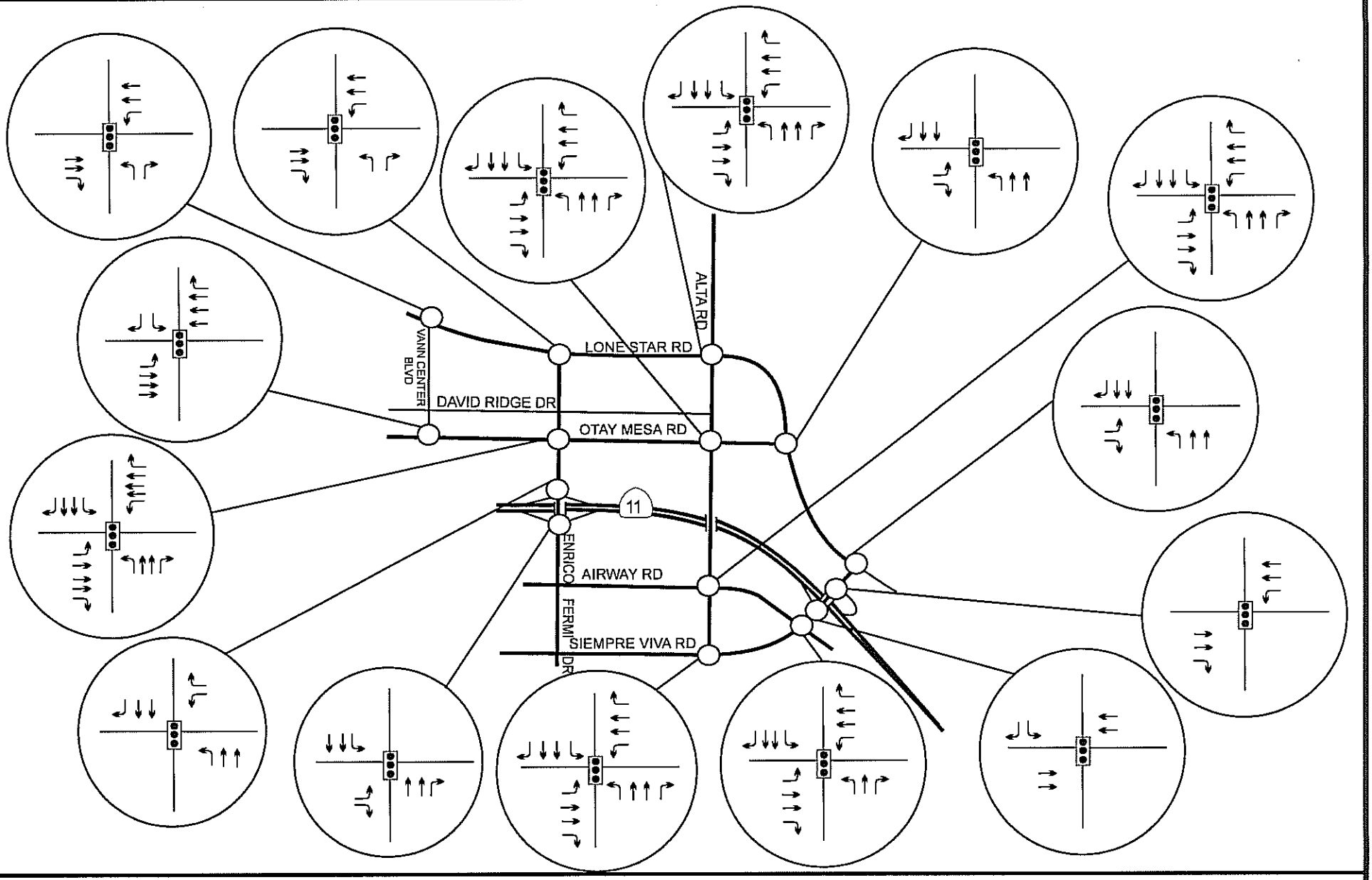
Opening Year (2015) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-22c



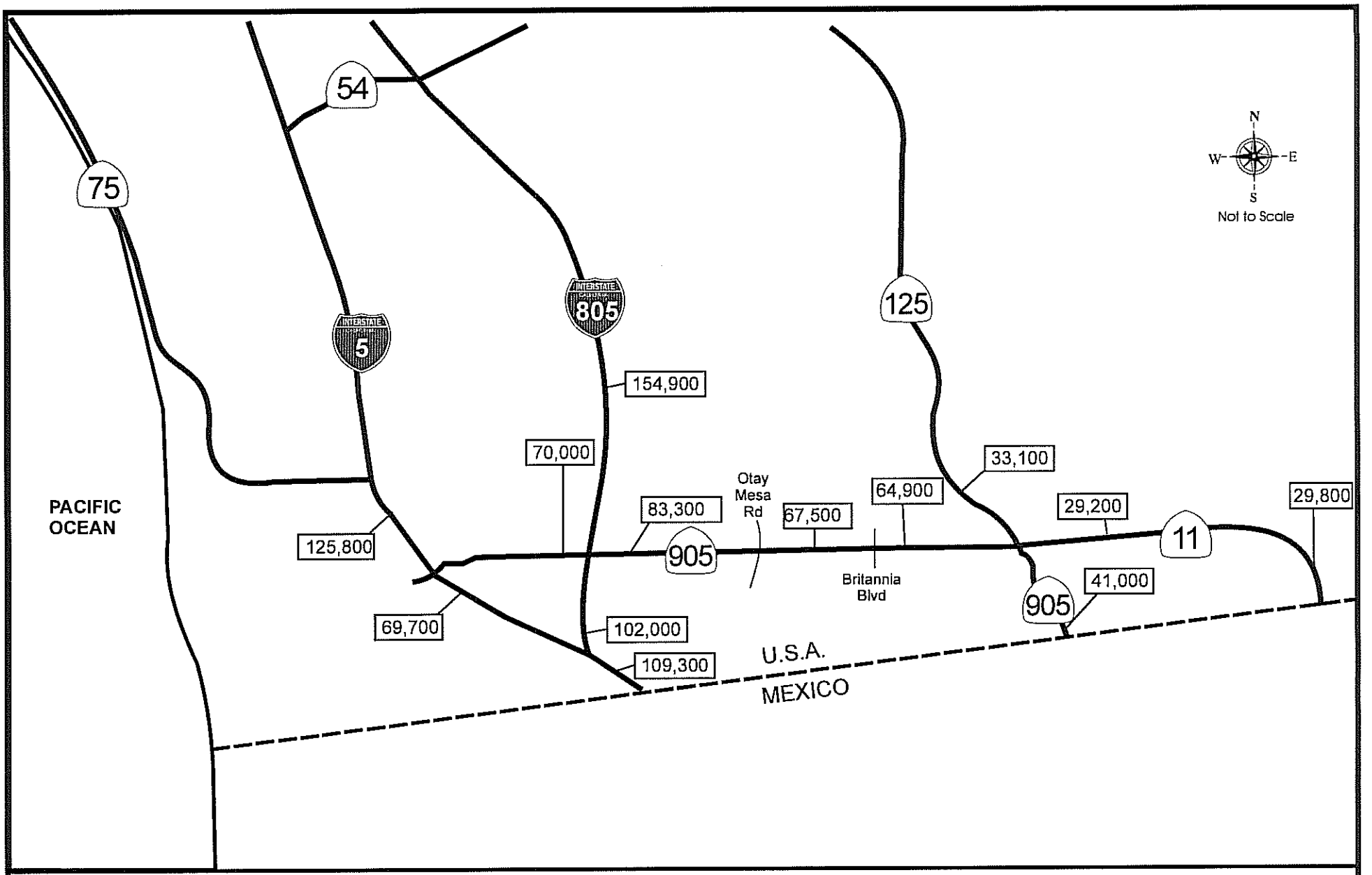
Opening Year (2015) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-22d



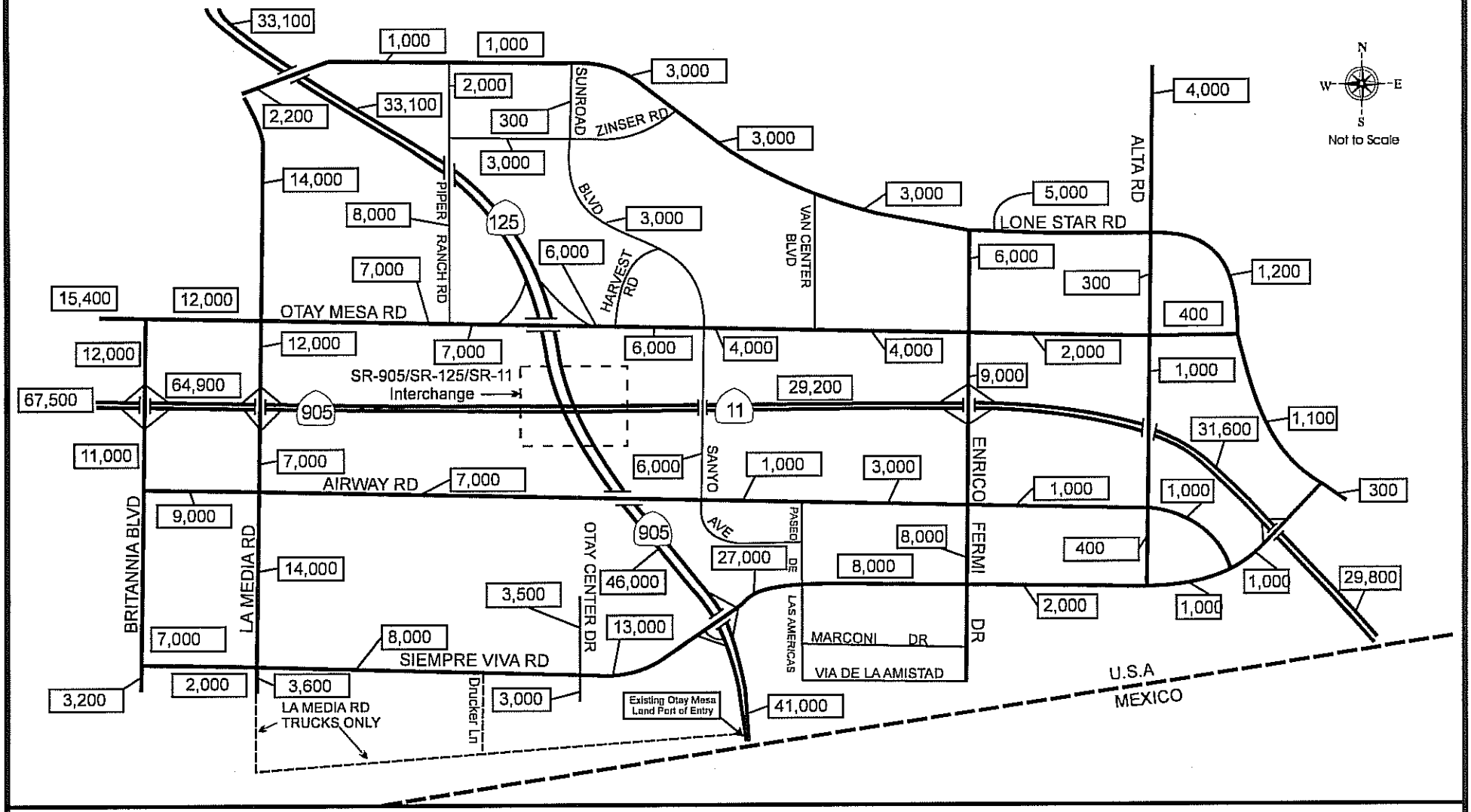
Opening Year (2015) Average Daily Traffic - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-23a



Opening Year (2015) Average Daily Traffic - No Toll / Two Interchange Design Variation

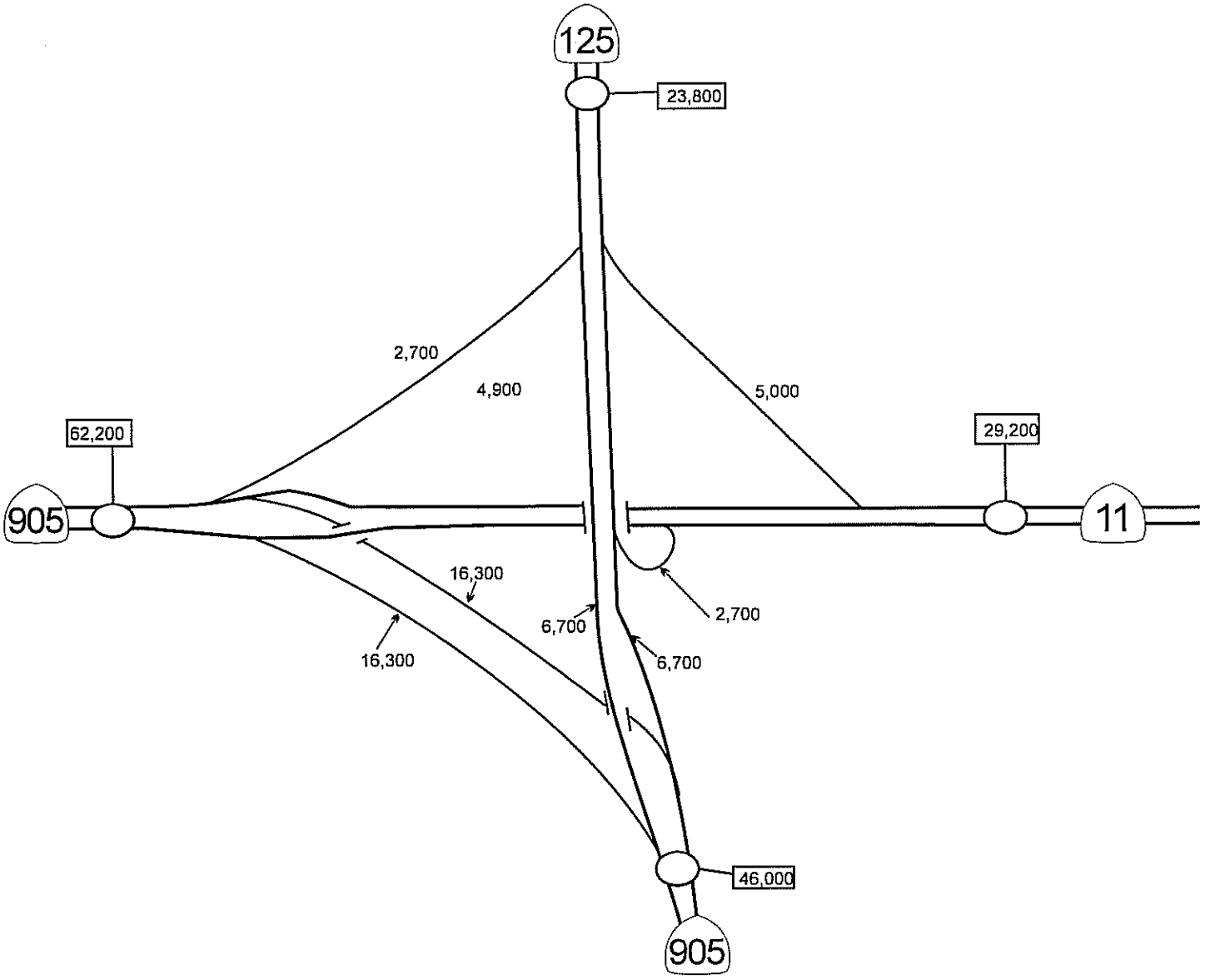
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-23b

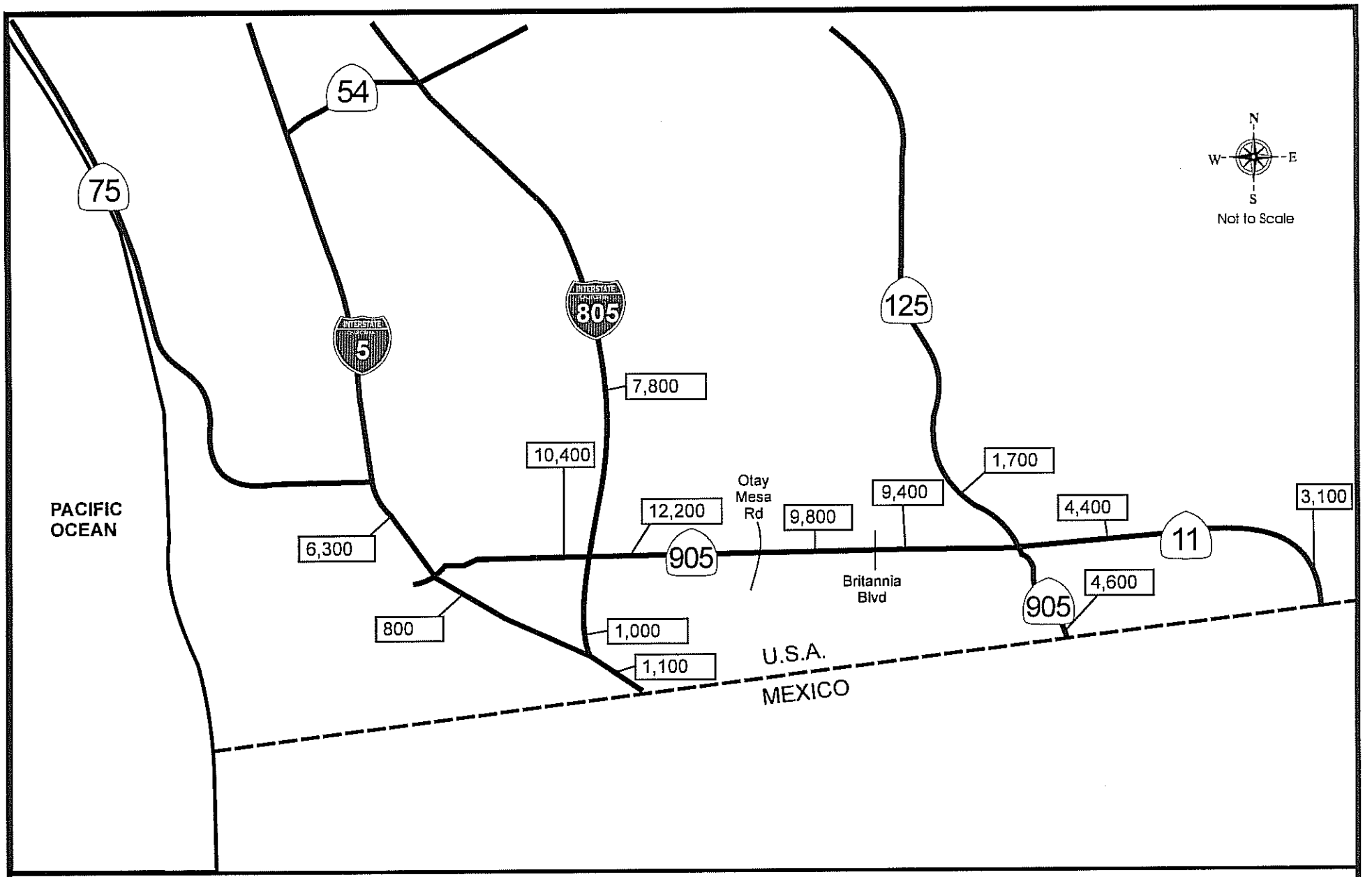


Opening Year (2015) Average Daily Traffic - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 4-23c



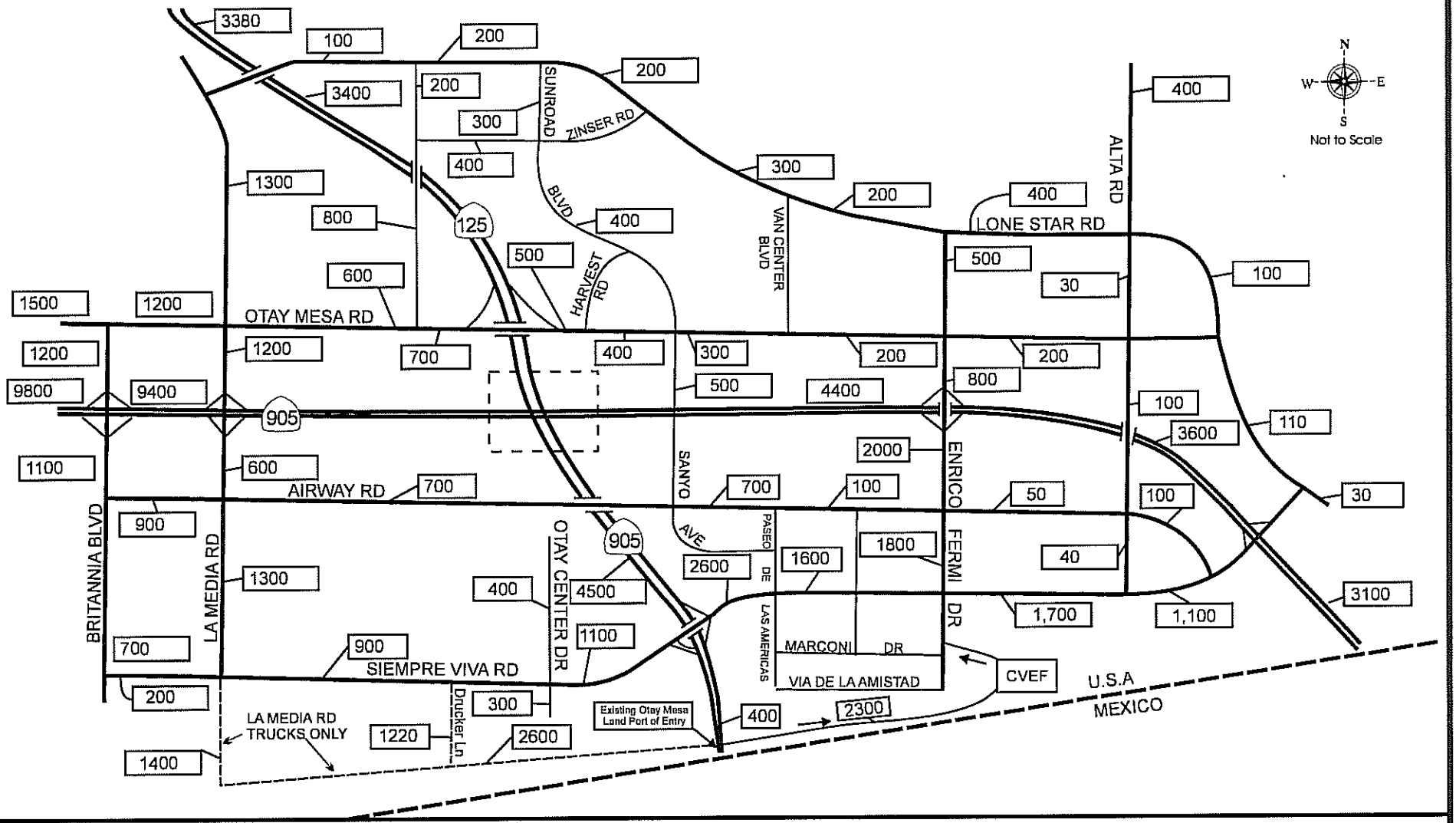
Opening Year (2015) Daily Truck Trips - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-24a



Opening Year (2015) Daily Truck Trips - No Toll / Two Interchange Design Variation

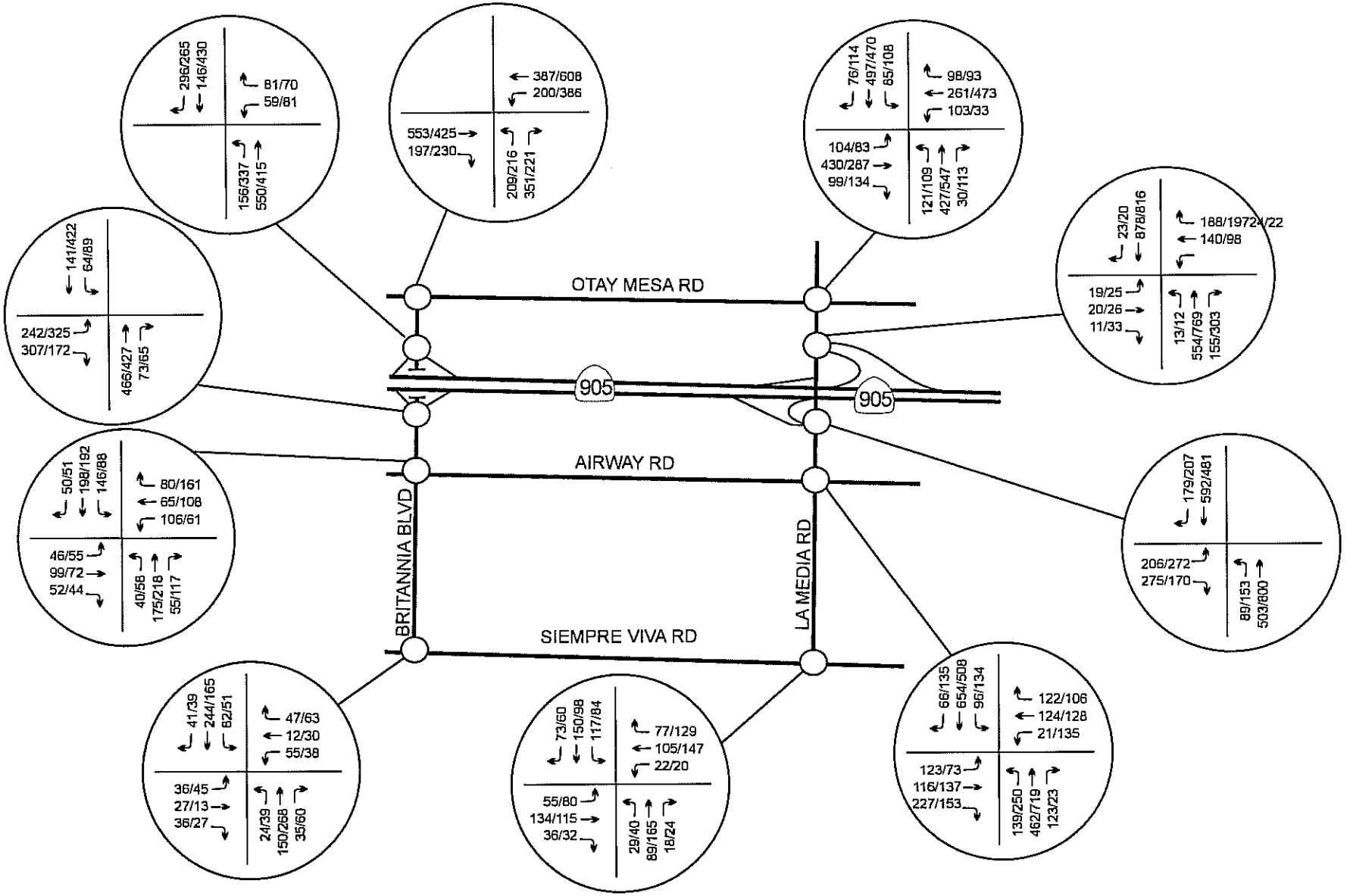
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-24b

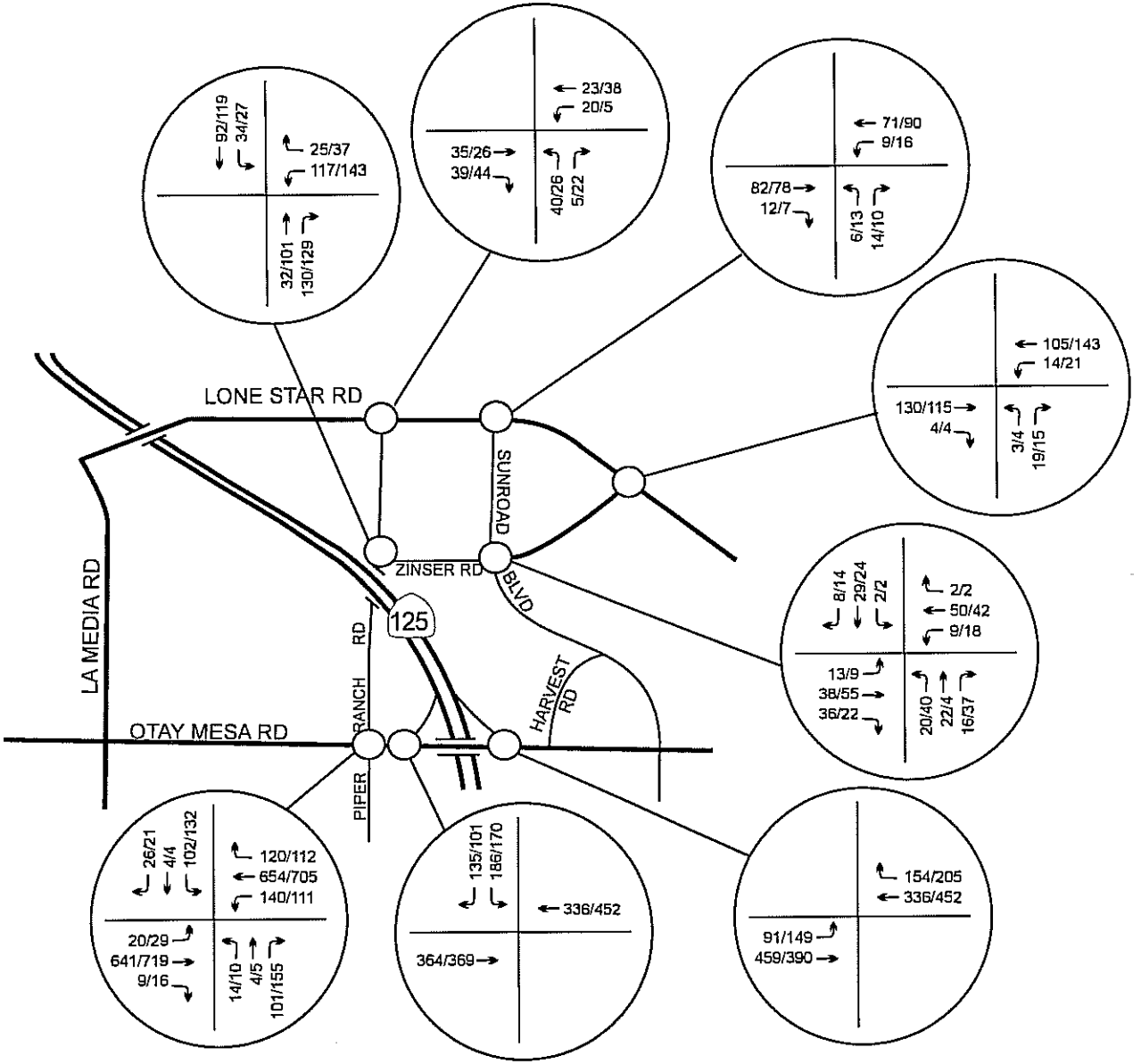


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-25a

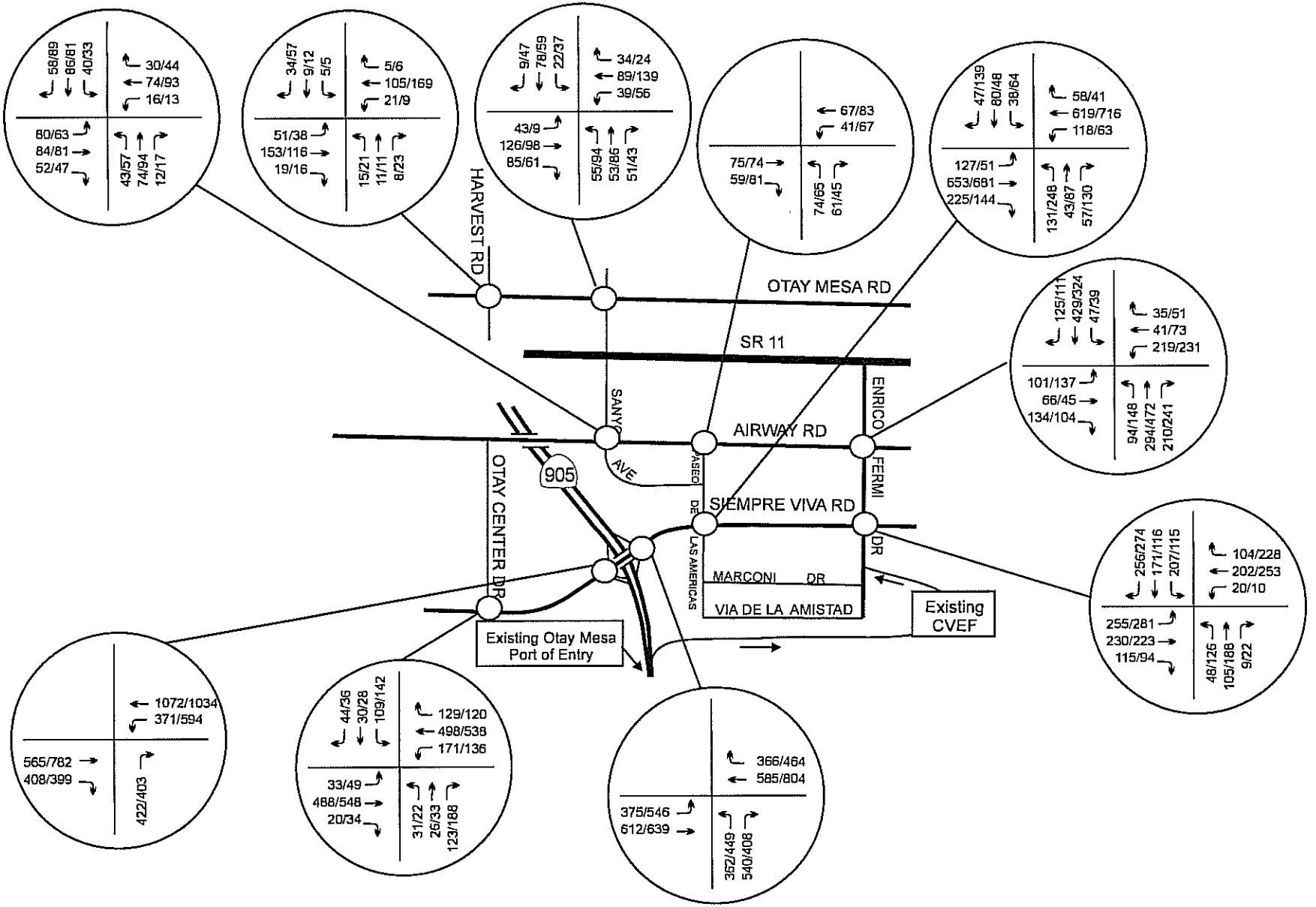


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-25b

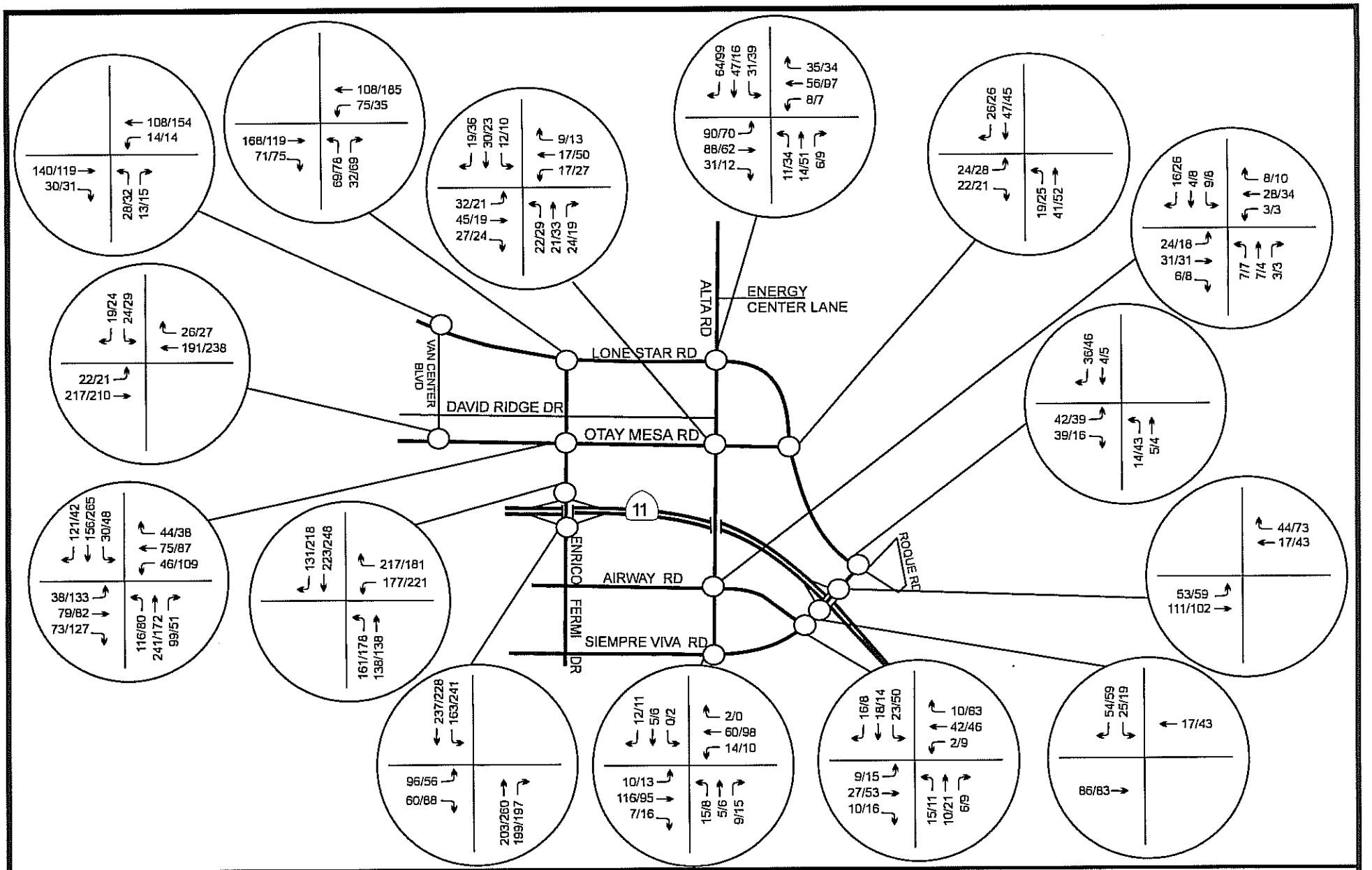


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-25c

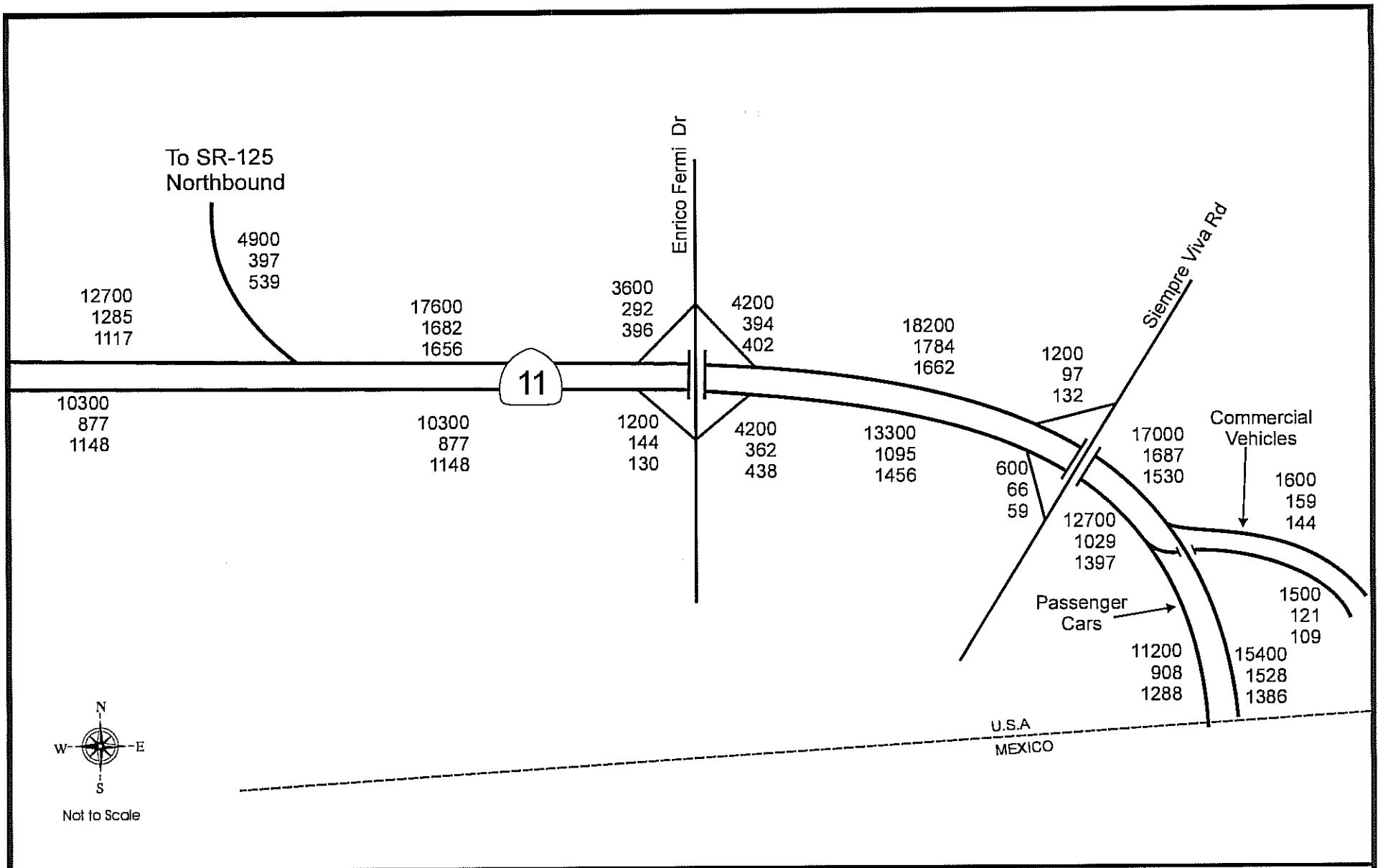


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-25d

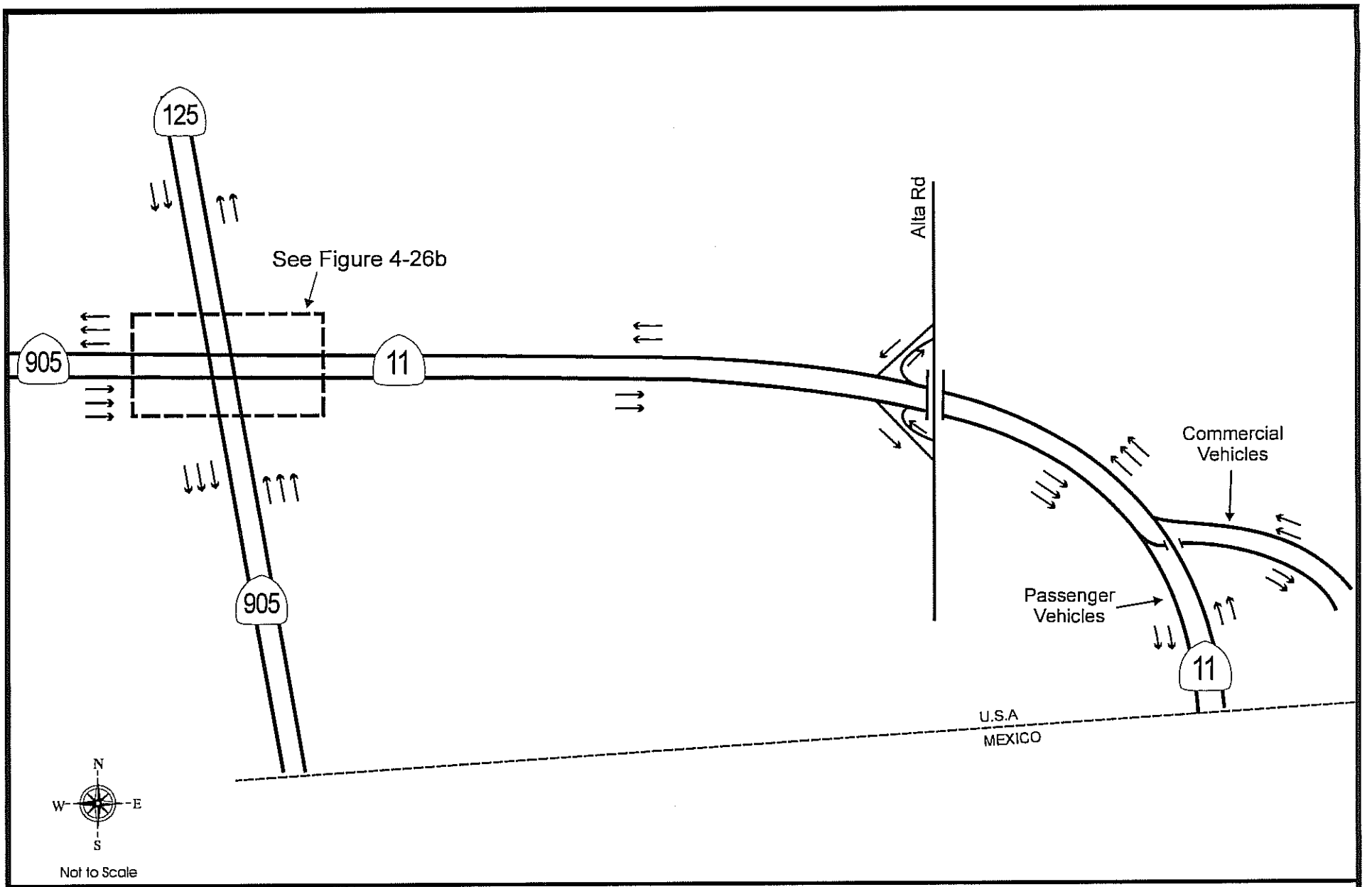


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - No Toll/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-25e

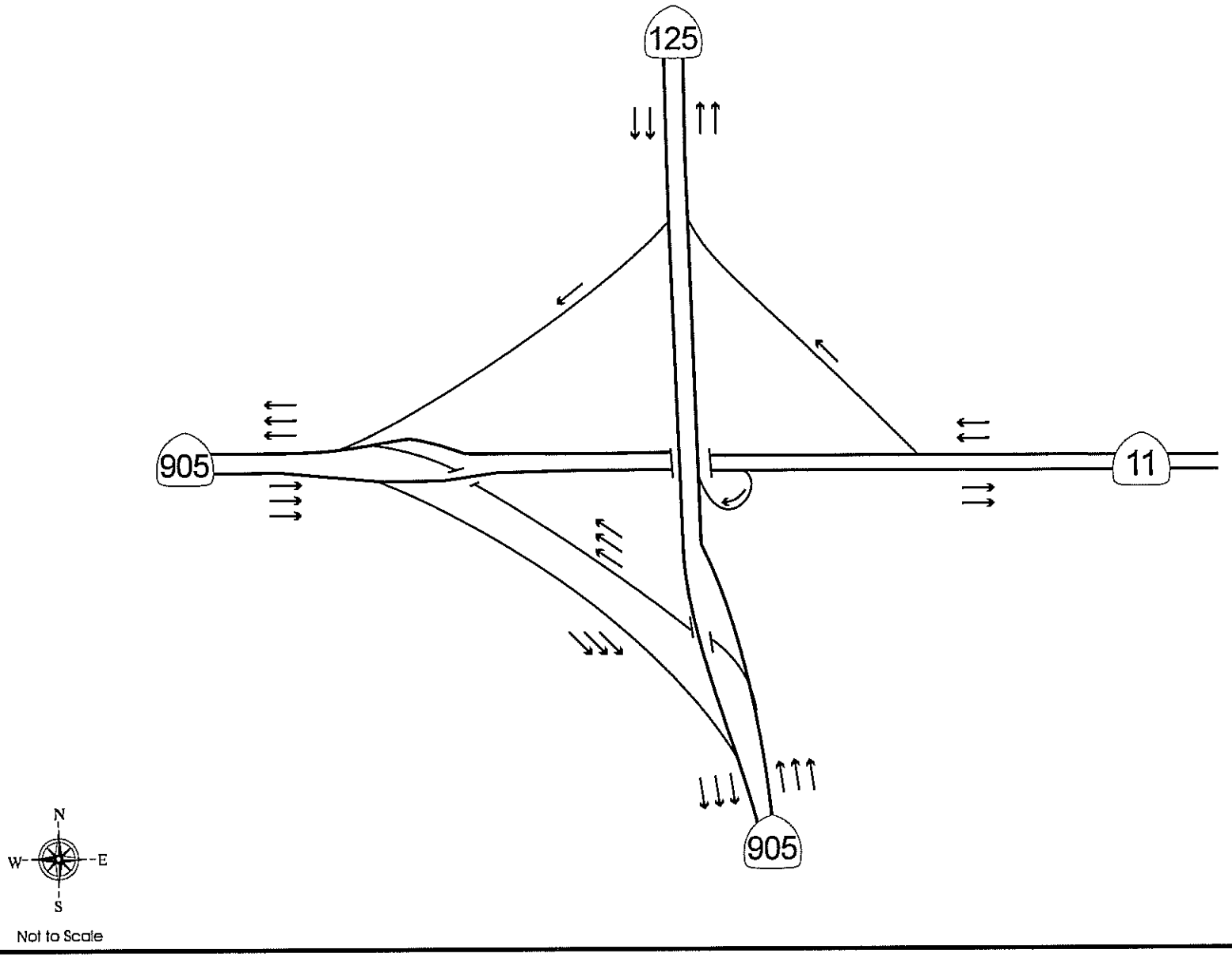


Opening Year (2015) SR-11 Lane Geometry
No Toll/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-26a

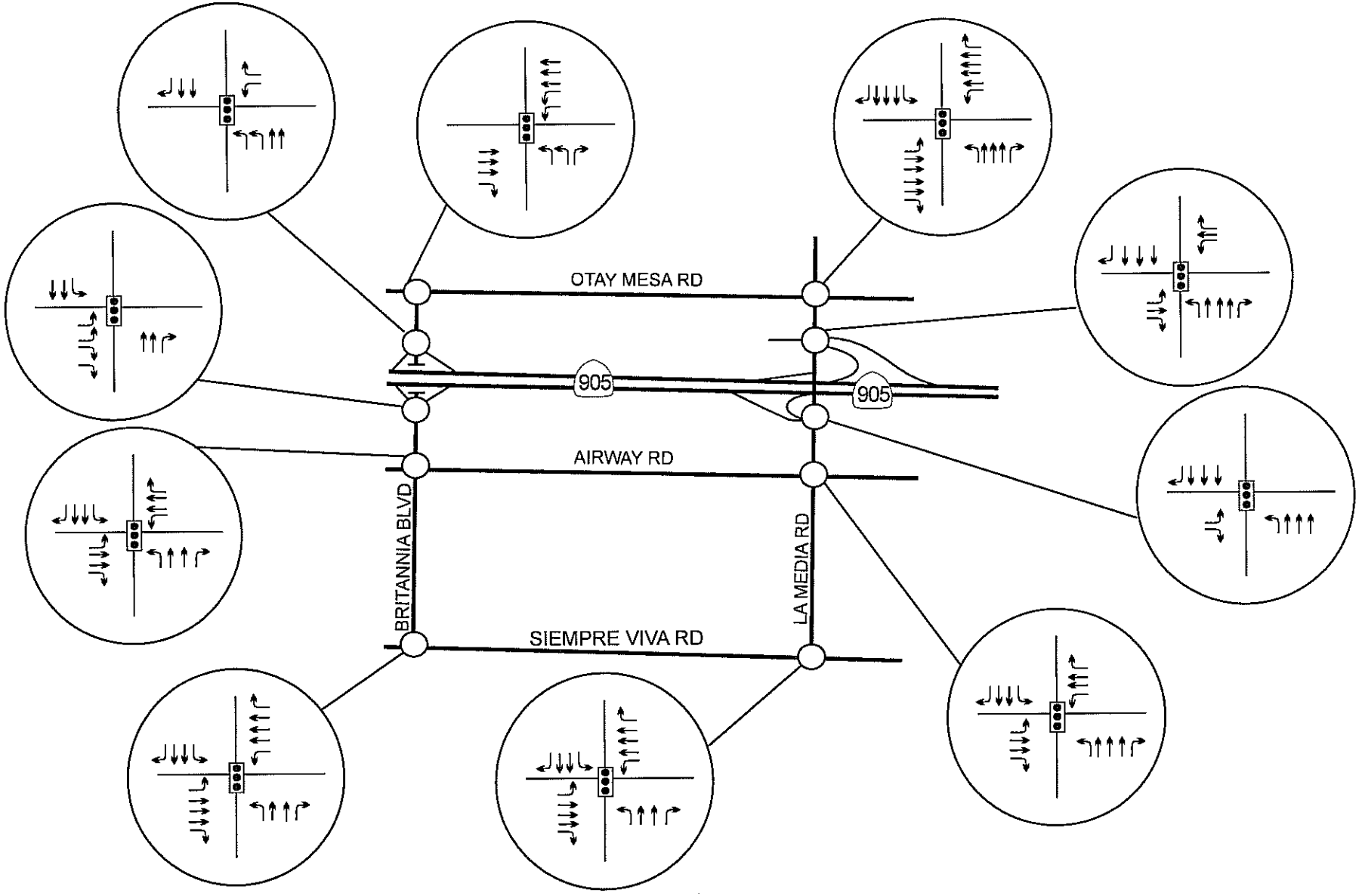


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
No Toll/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-26b

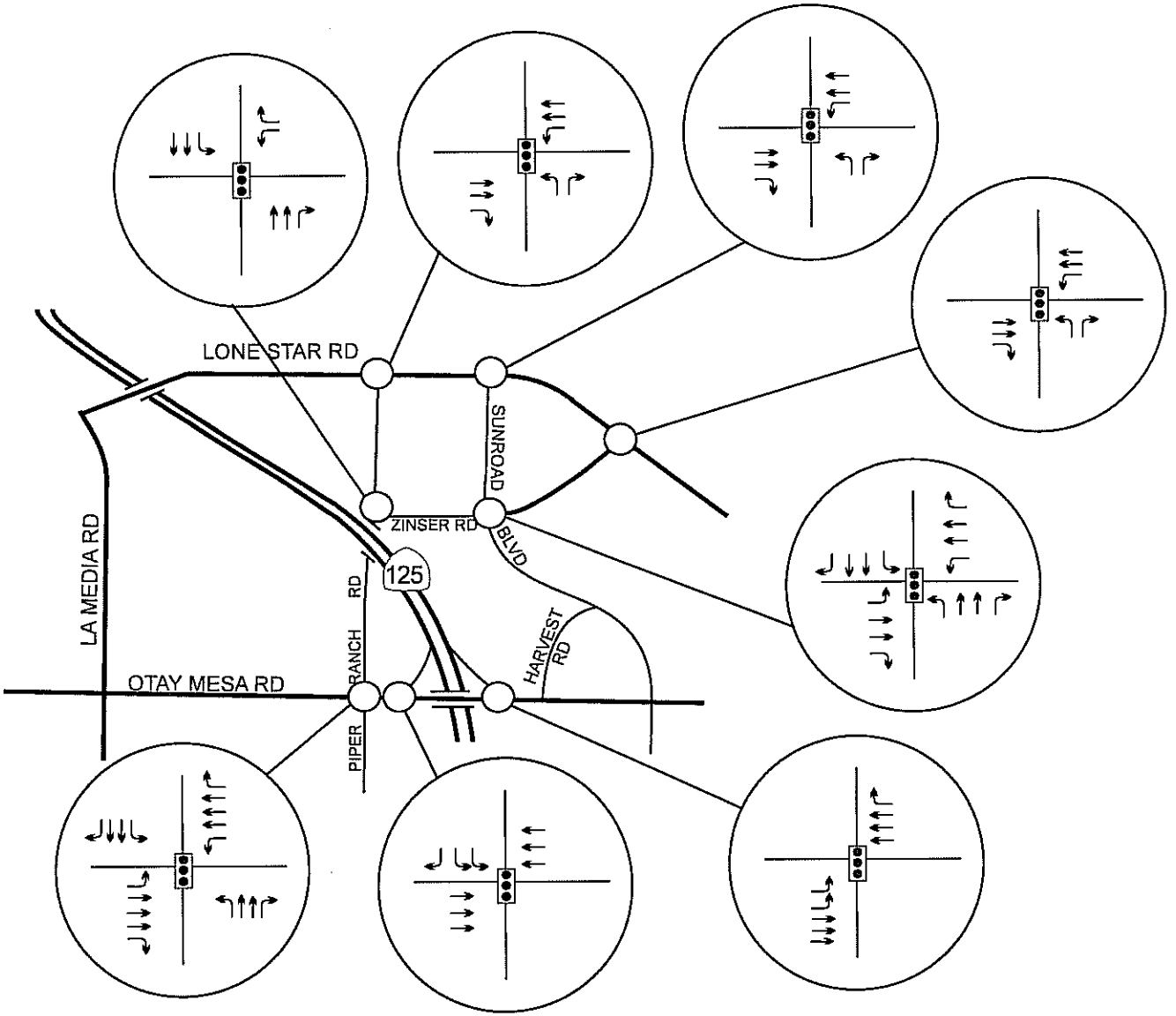


Opening Year (2015) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-27a

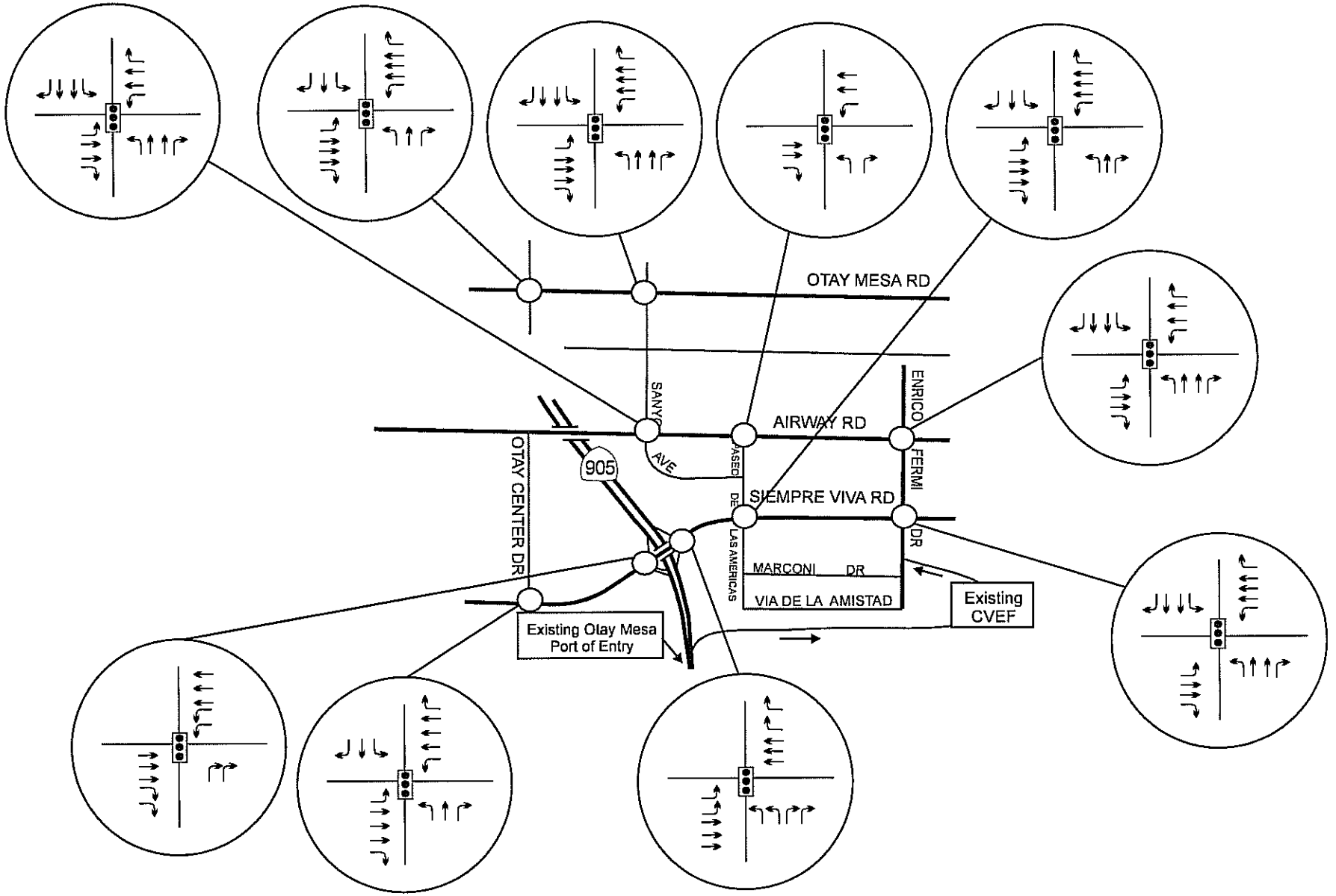


Opening Year (2015) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-27b

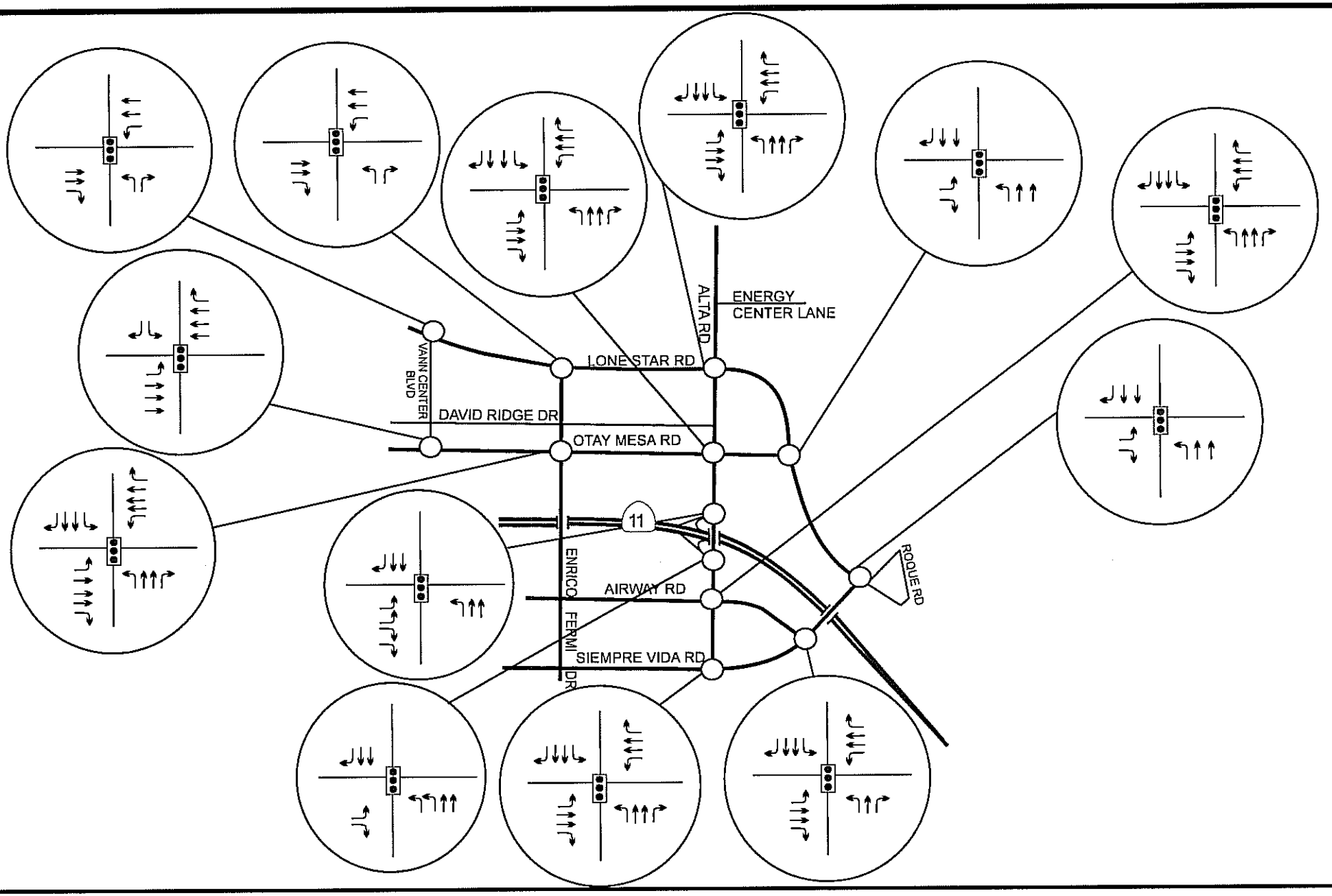


Opening Year (2015) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-27c

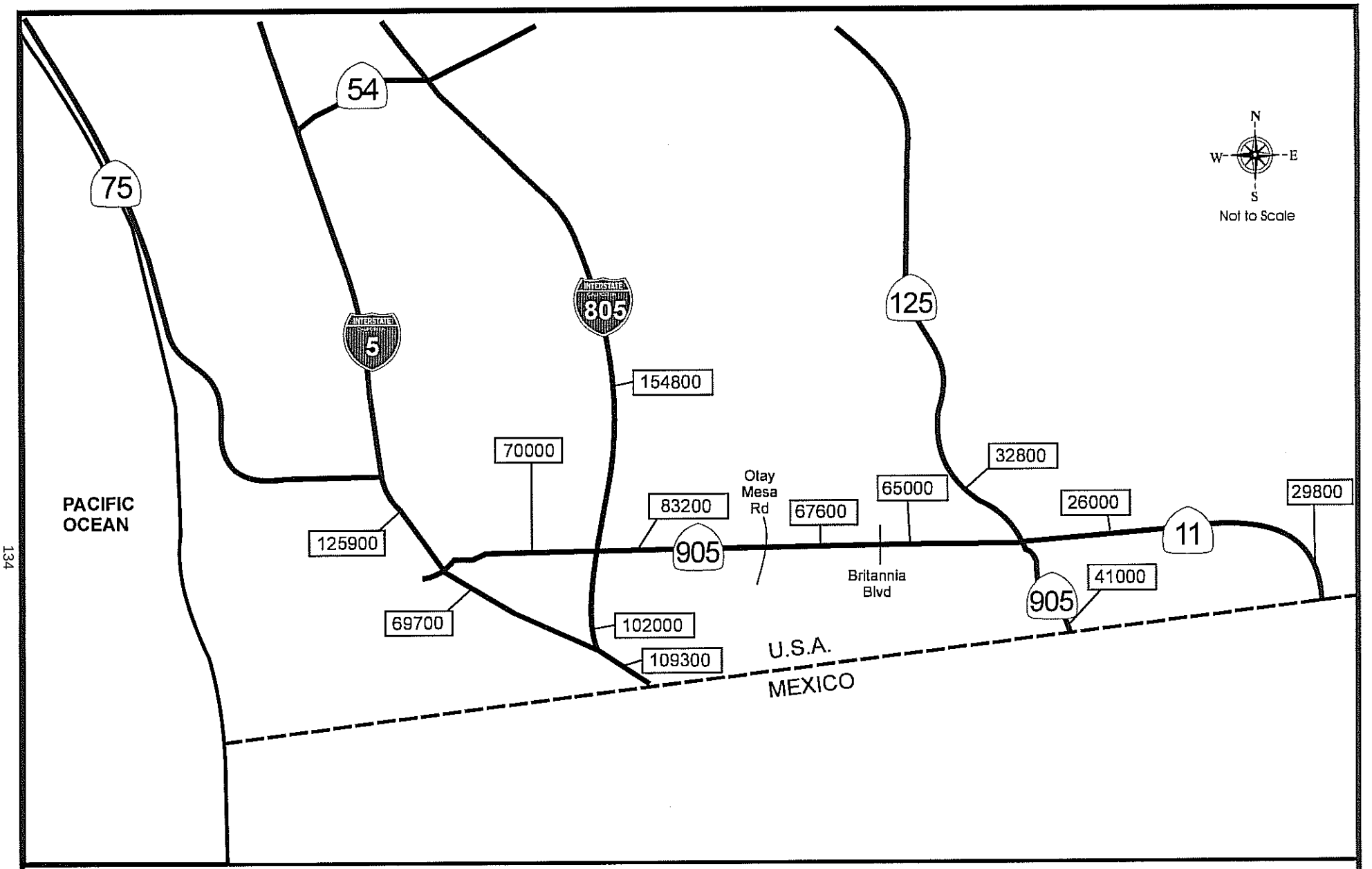


Opening Year (2015) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-27d



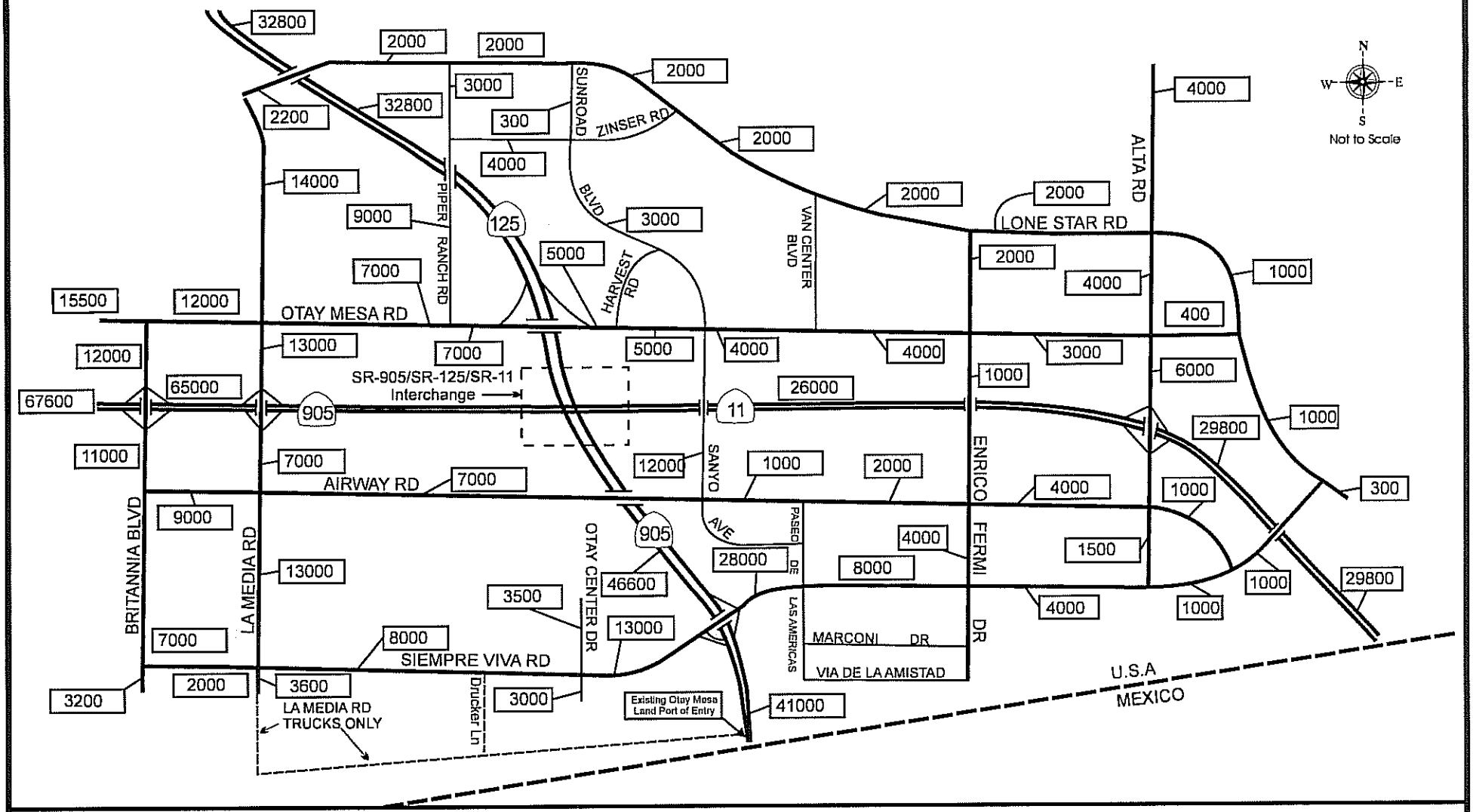
Opening Year (2015) Average Daily Traffic - No Toll / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-28a



Opening Year (2015) Average Daily Traffic - No Toll / One Interchange Design Variation

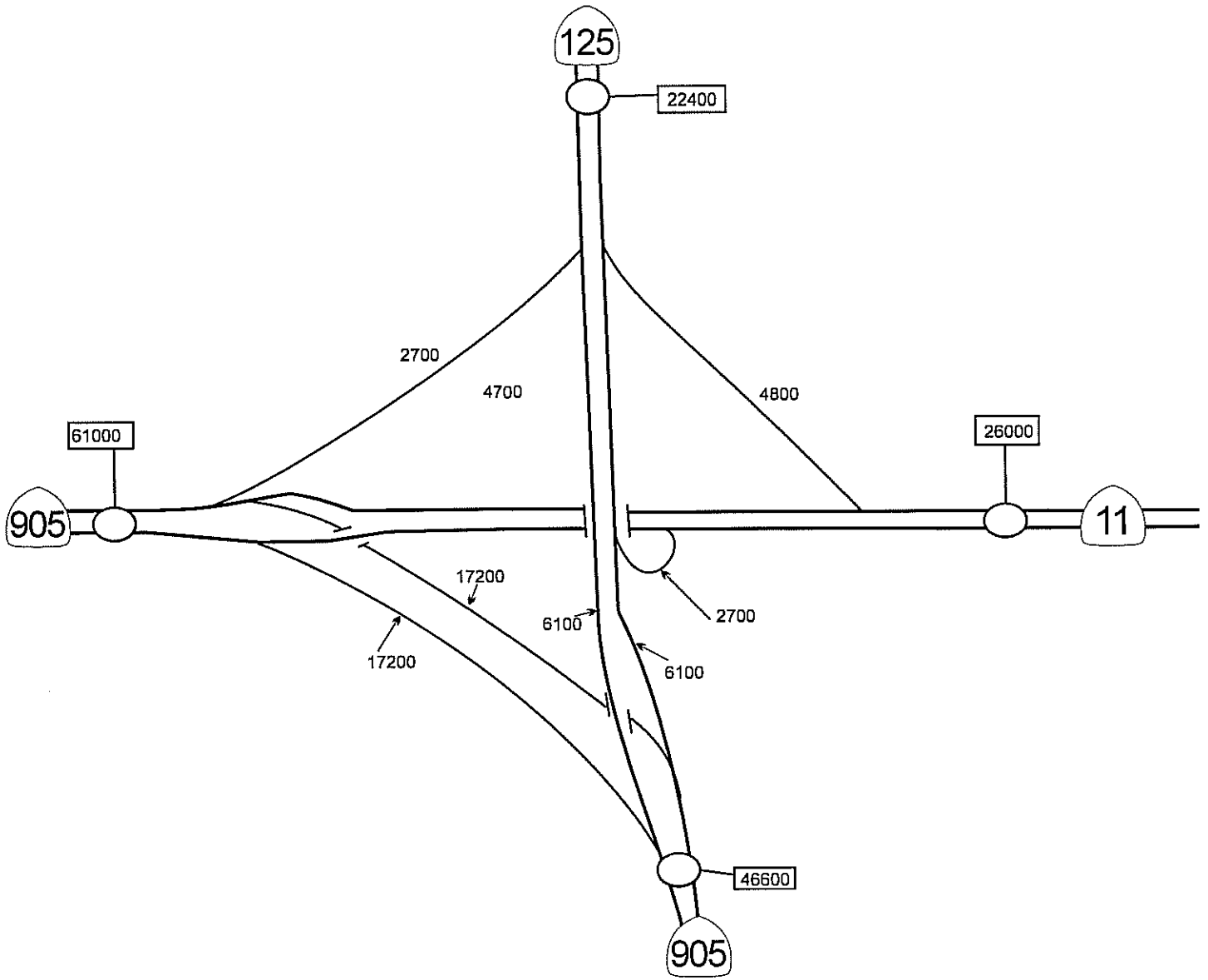
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-28b

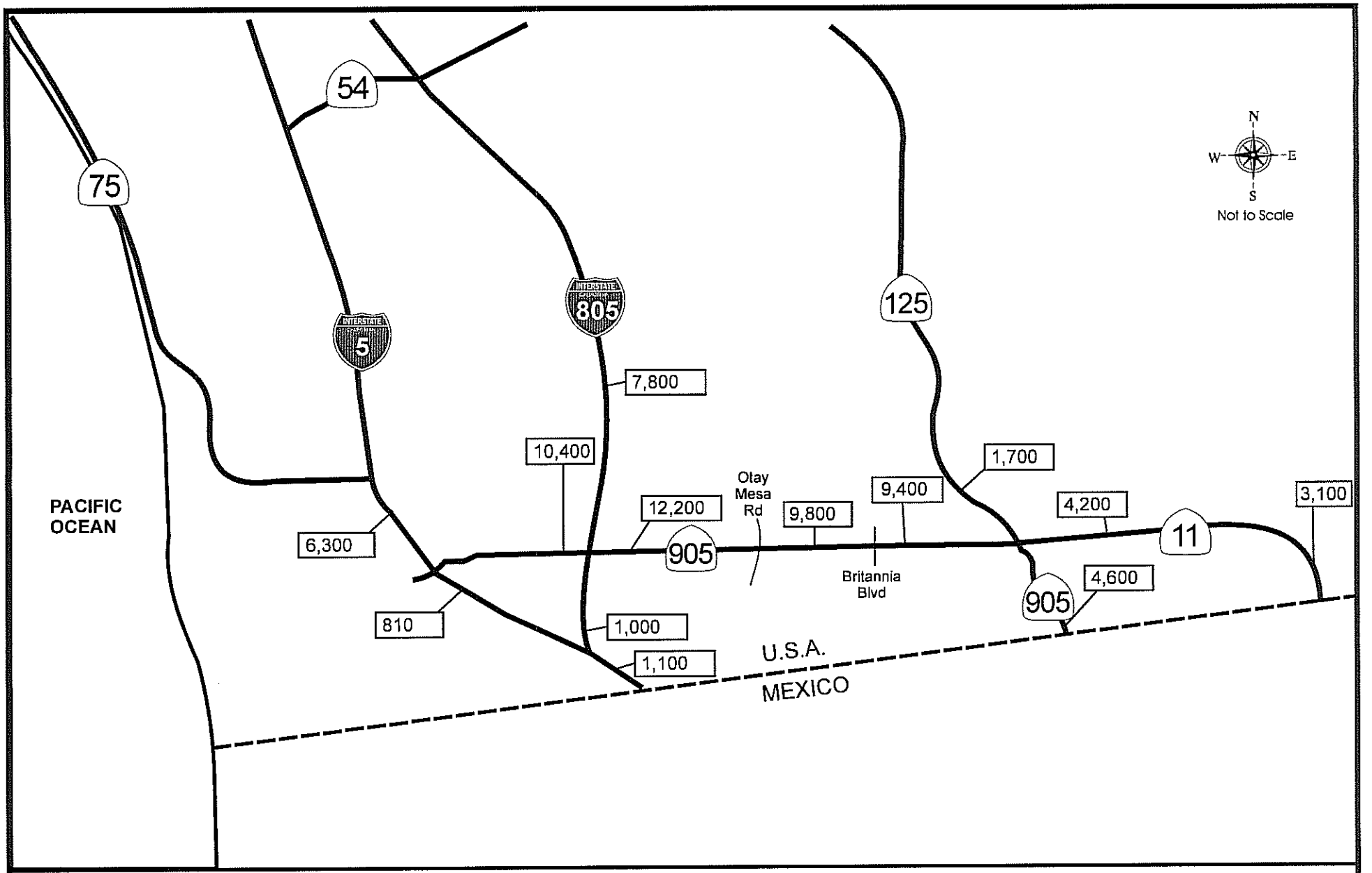


Opening Year (2015) Average Daily Traffic - No Toll / One Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-28c



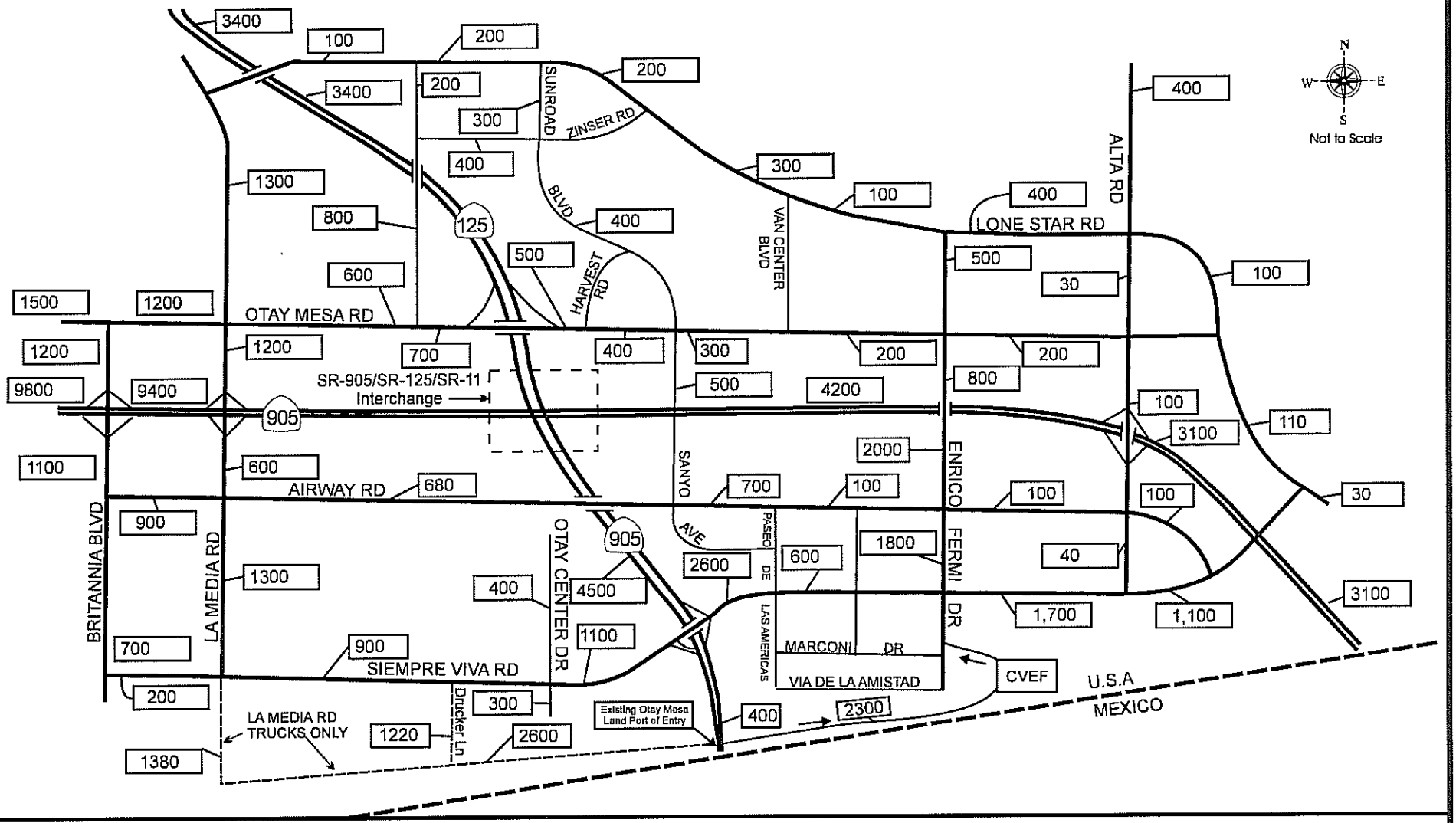
Opening Year (2015) Daily Truck Trips - No Toll / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-29a



Opening Year (2015) Daily Truck Trips - No Toll / One Interchange Design Variation

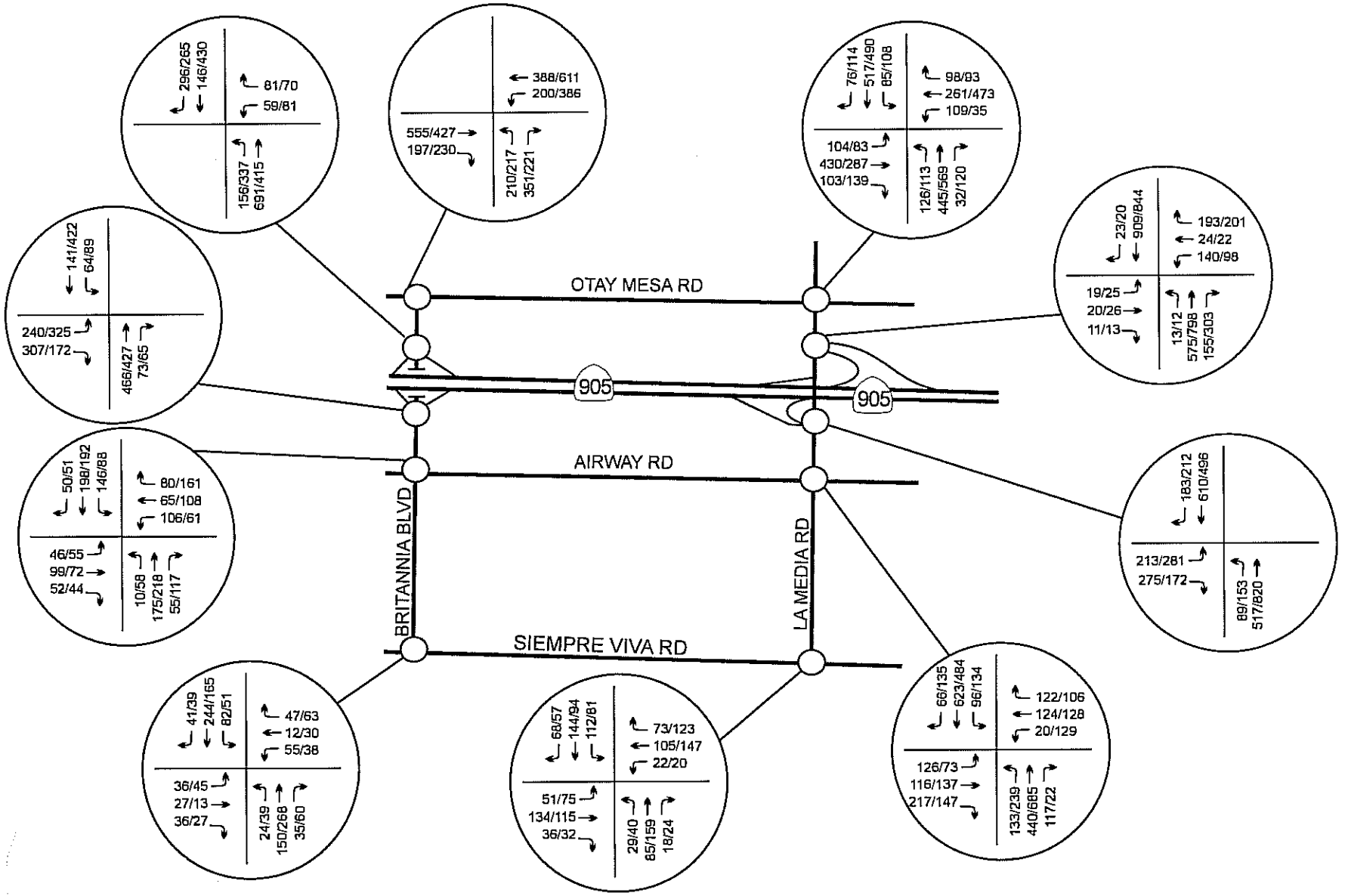
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-29b

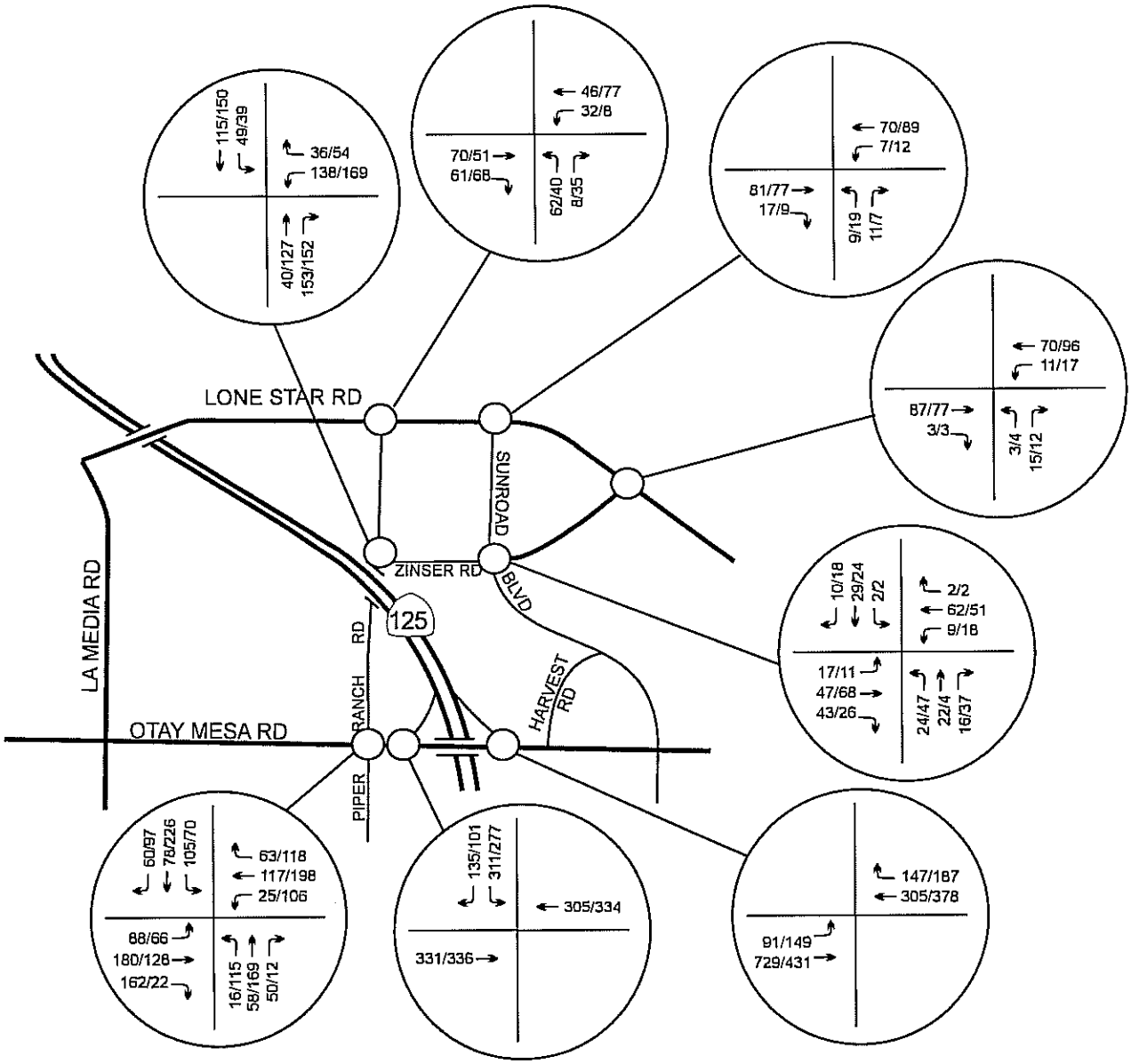


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-30a

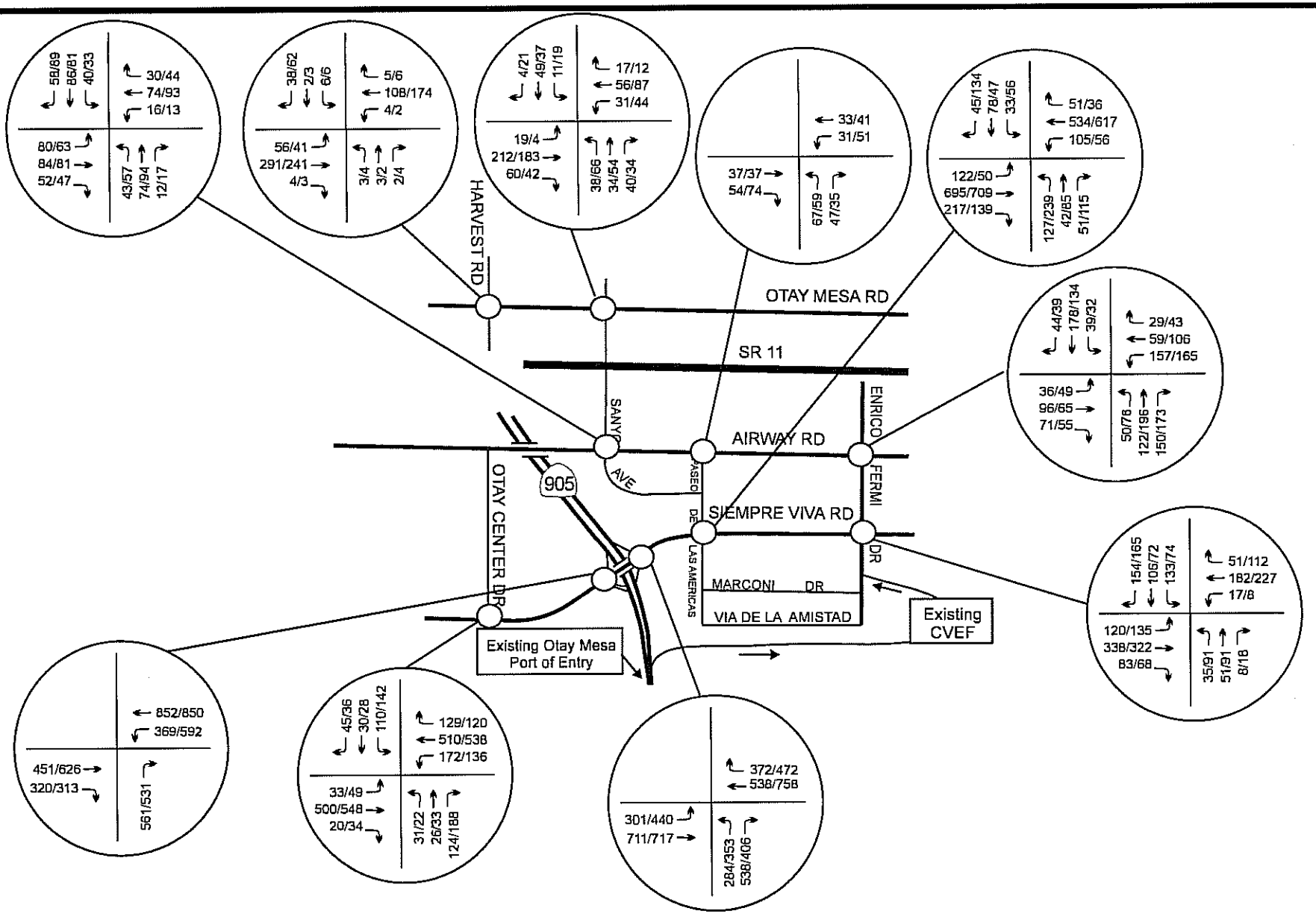


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-30b

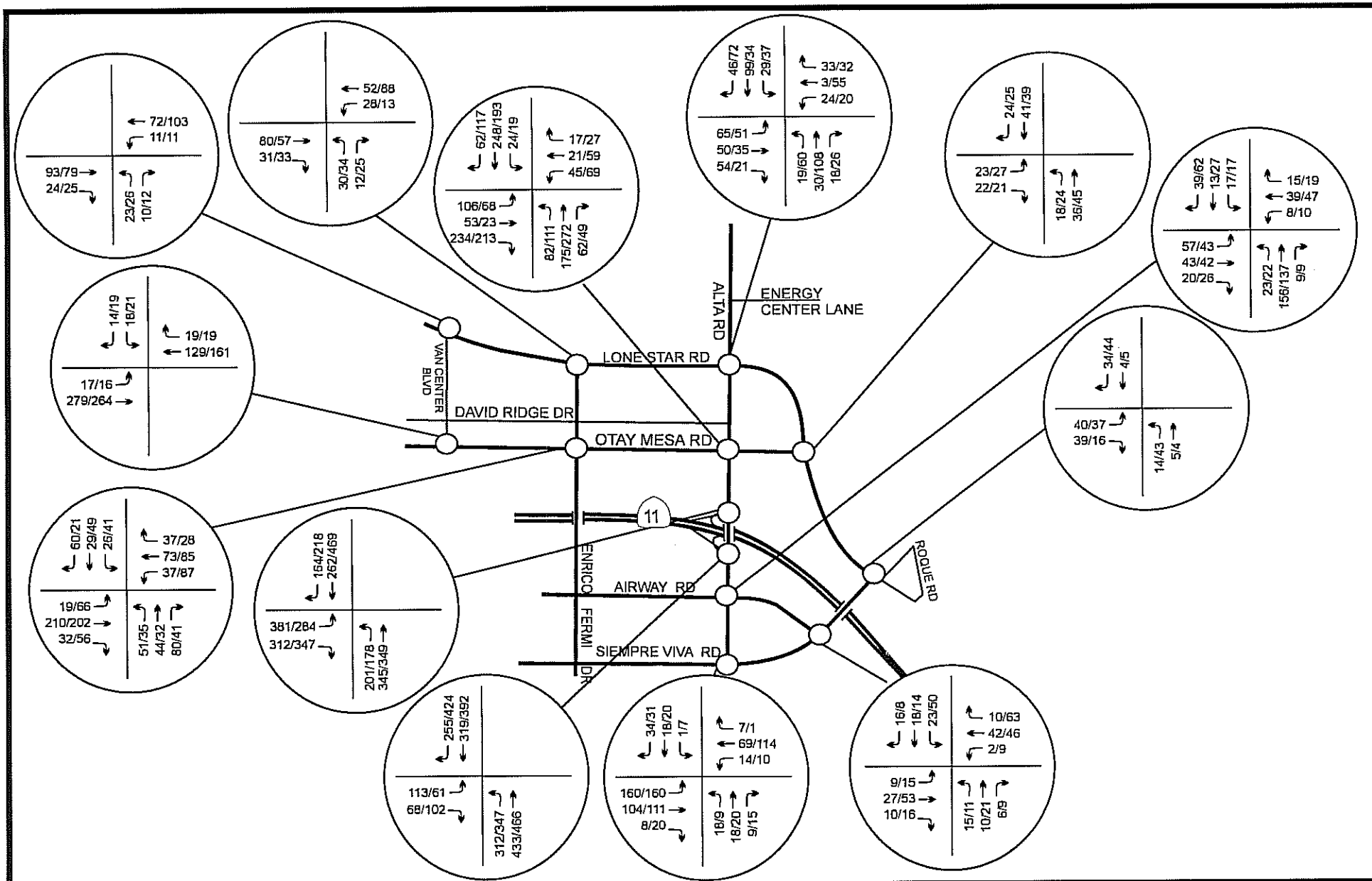


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-30c

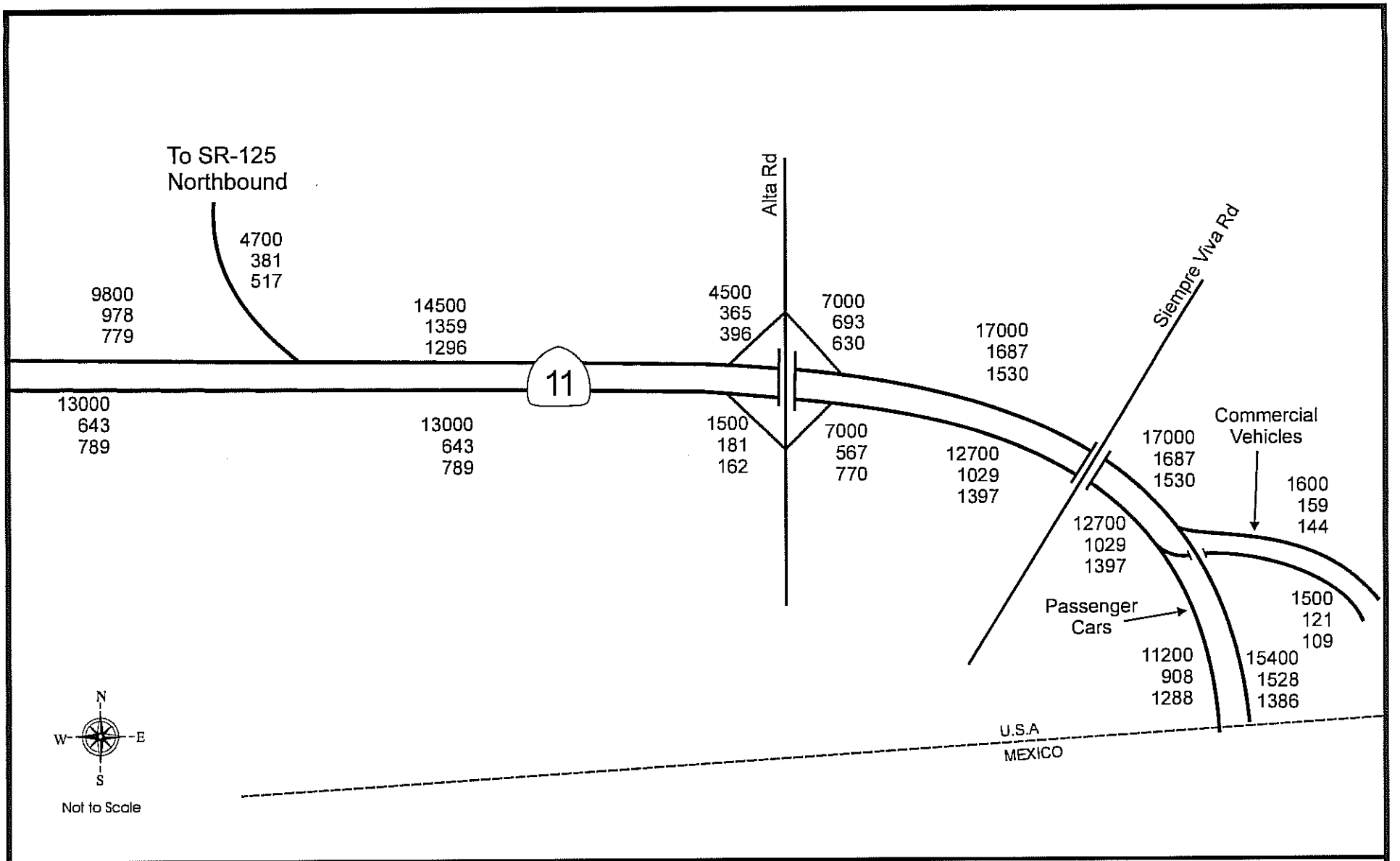


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-30d

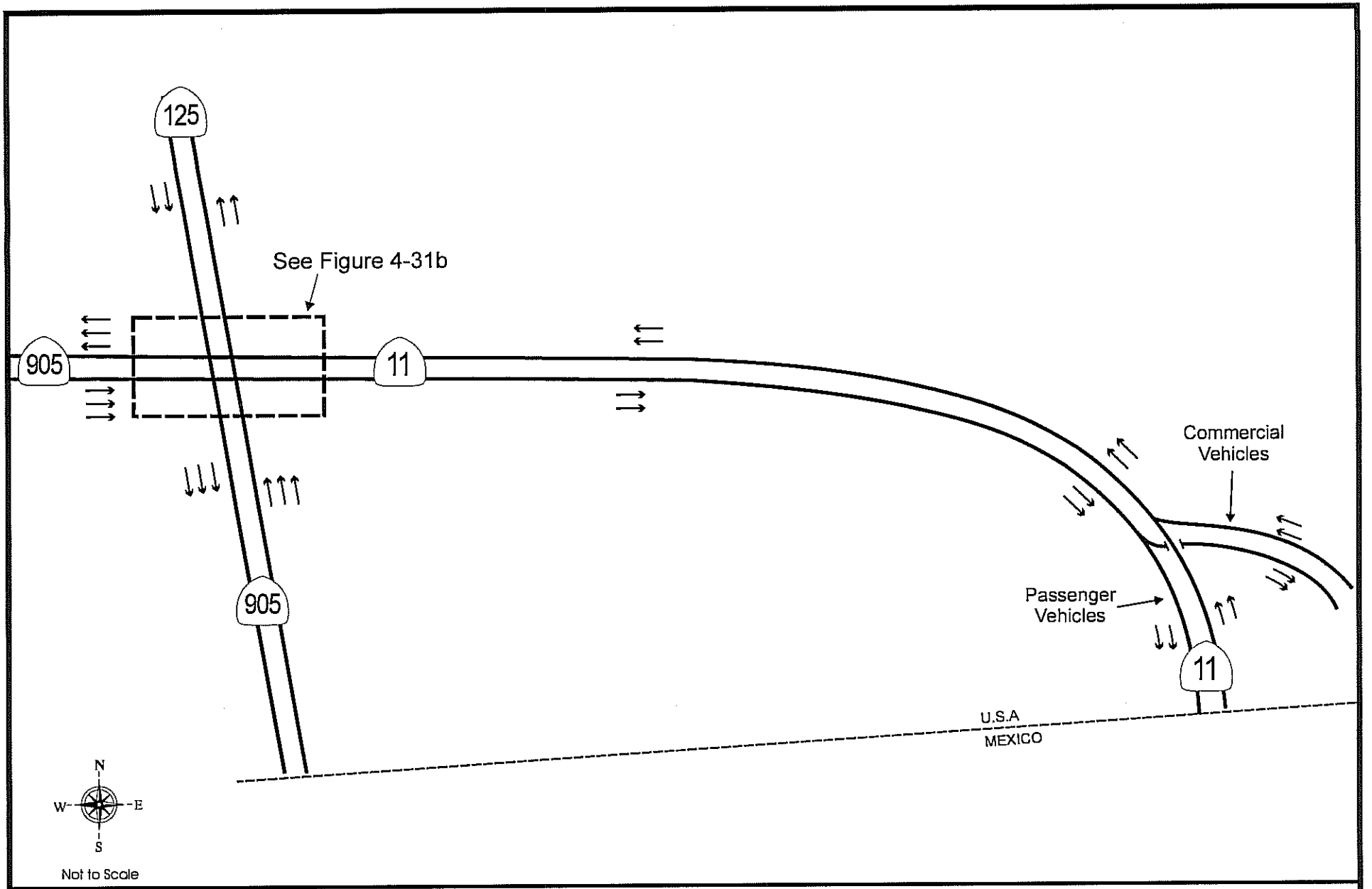


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - No Toll/One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-30e

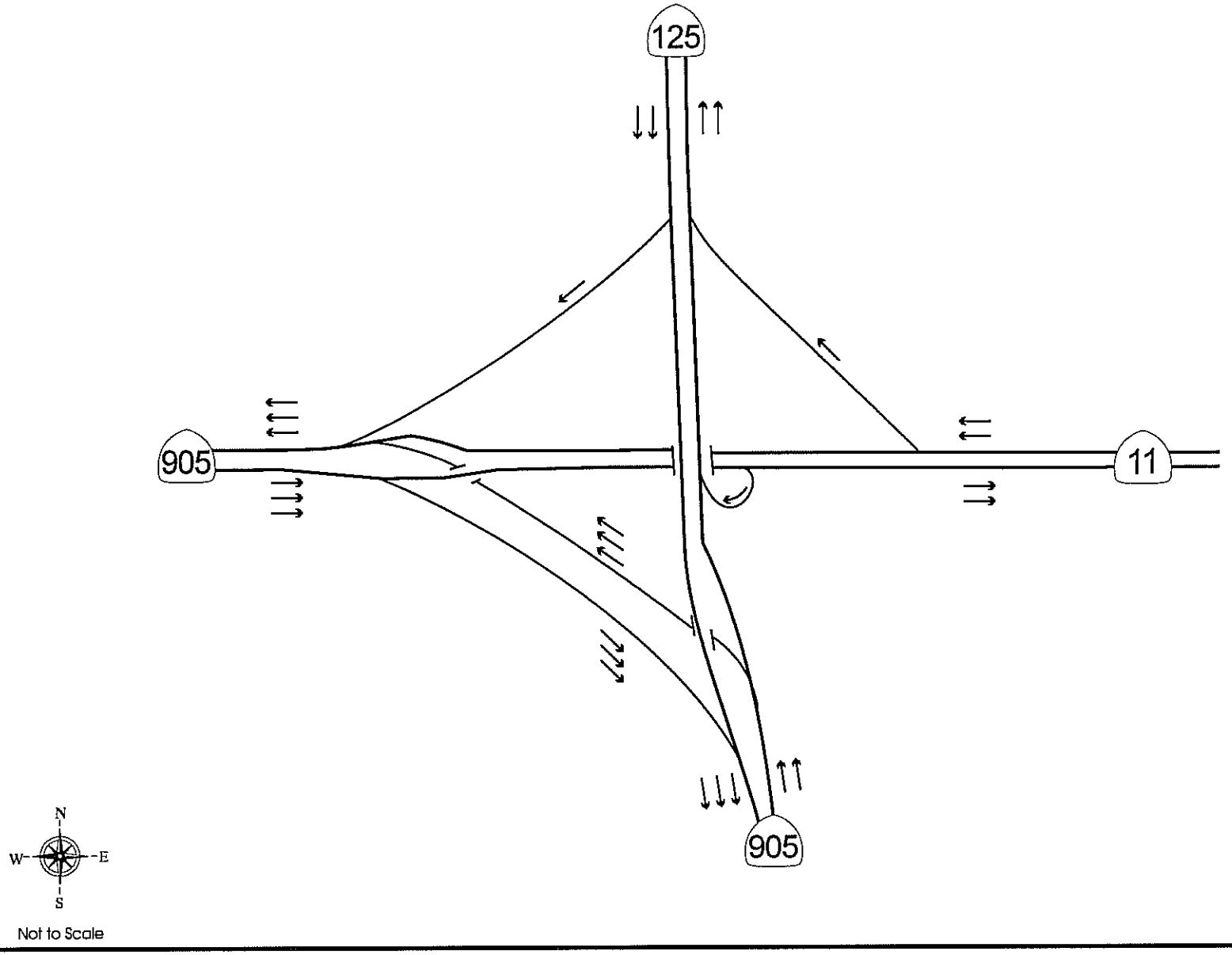


Opening Year (2015) SR-11 Lane Geometry
No Toll/No Interchange Design Variation

Legend

← Number of Lanes

Figure 4-31a

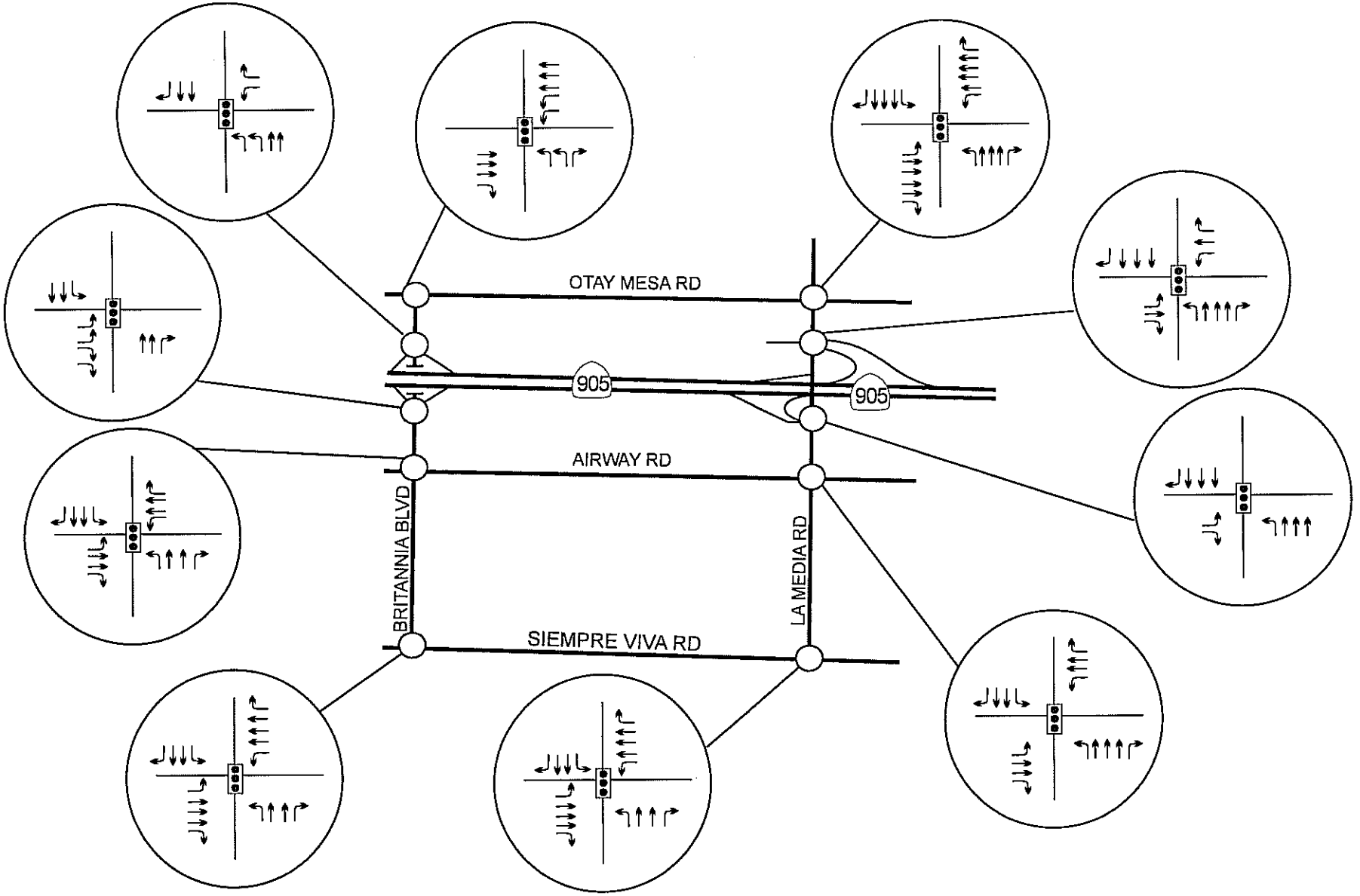


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
No Toll/No Interchange Design Variation

Legend

← Number of Lanes

Figure 4-31b

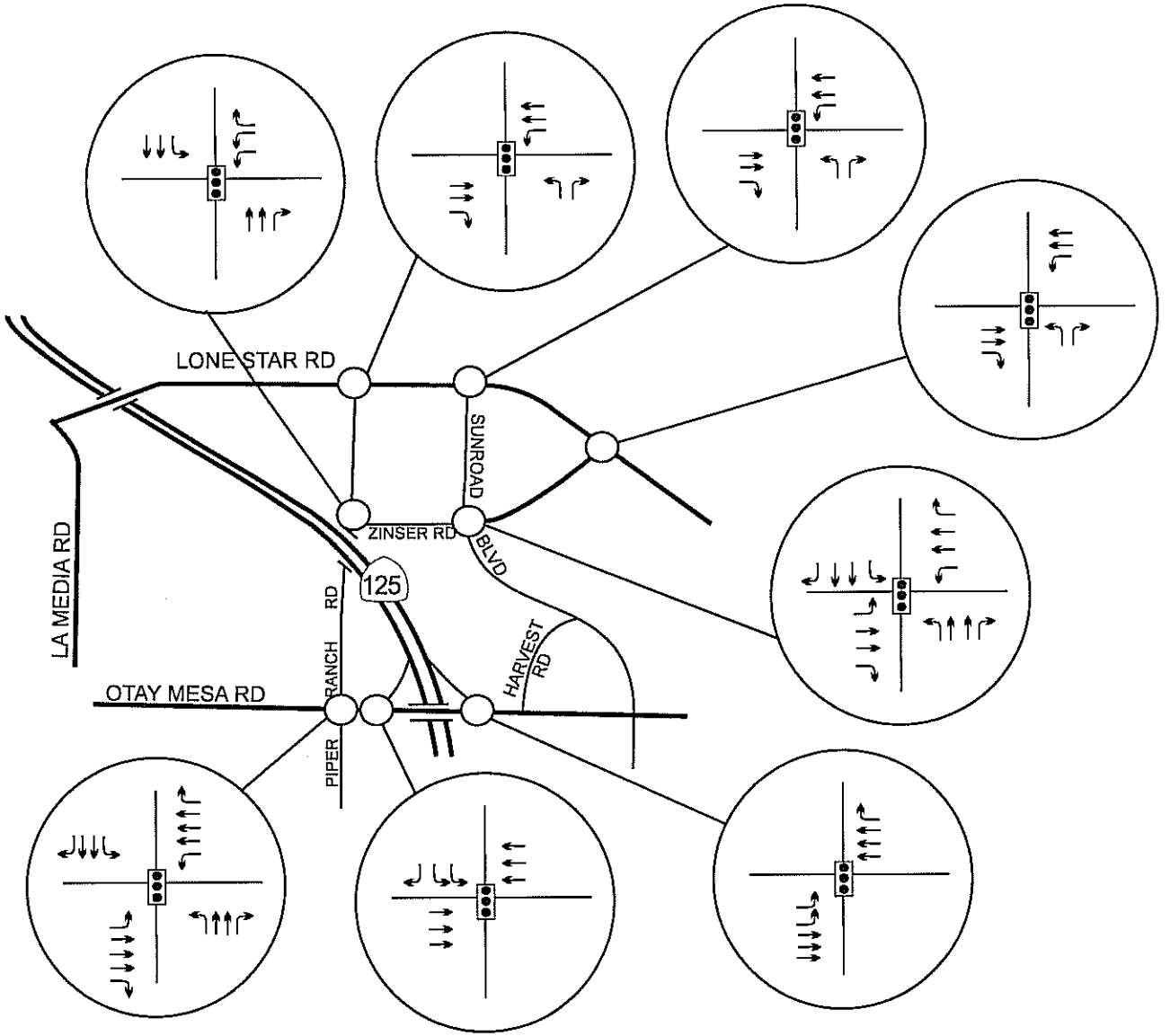


Opening Year (2015) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-32a

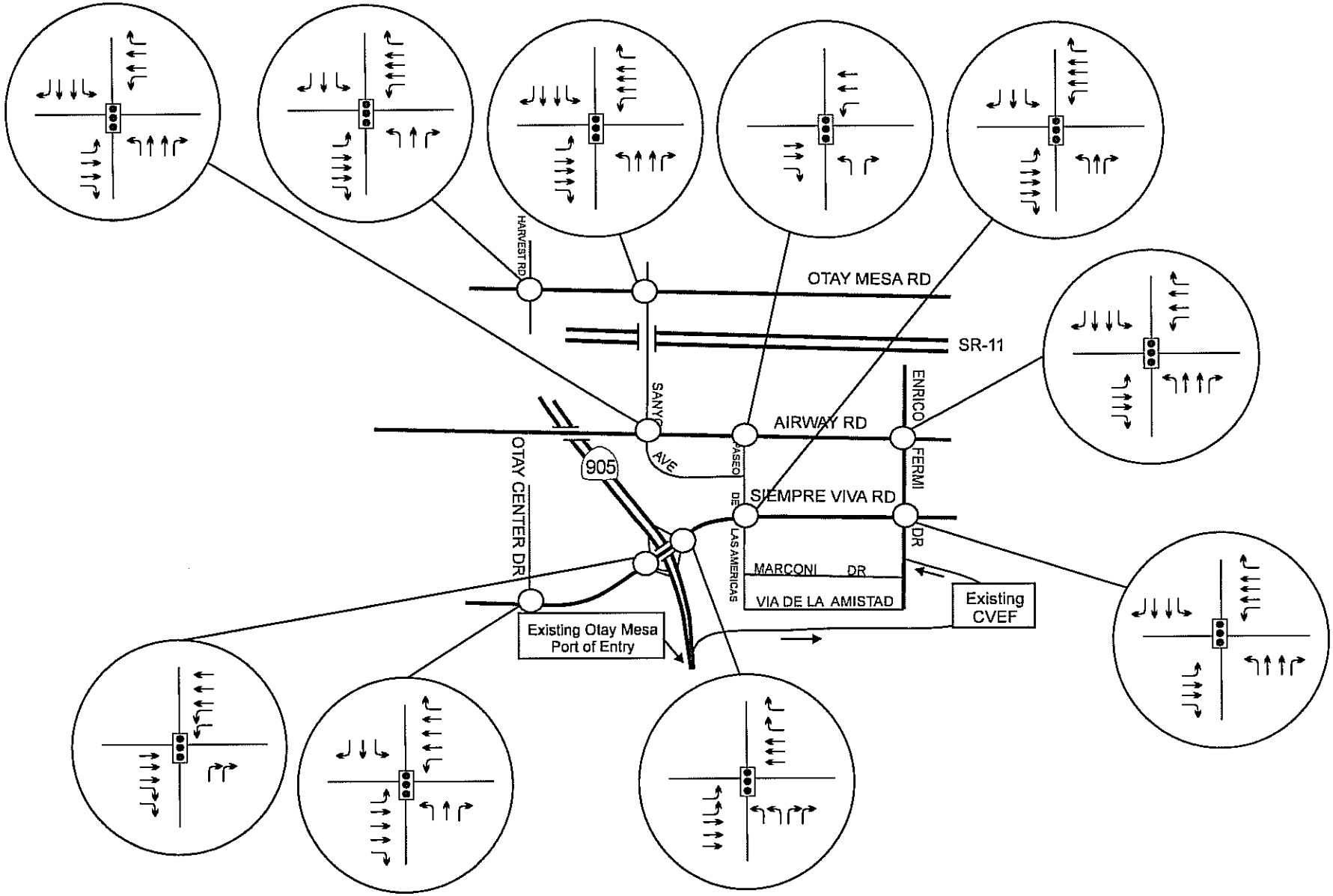


Opening Year (2015) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-32b

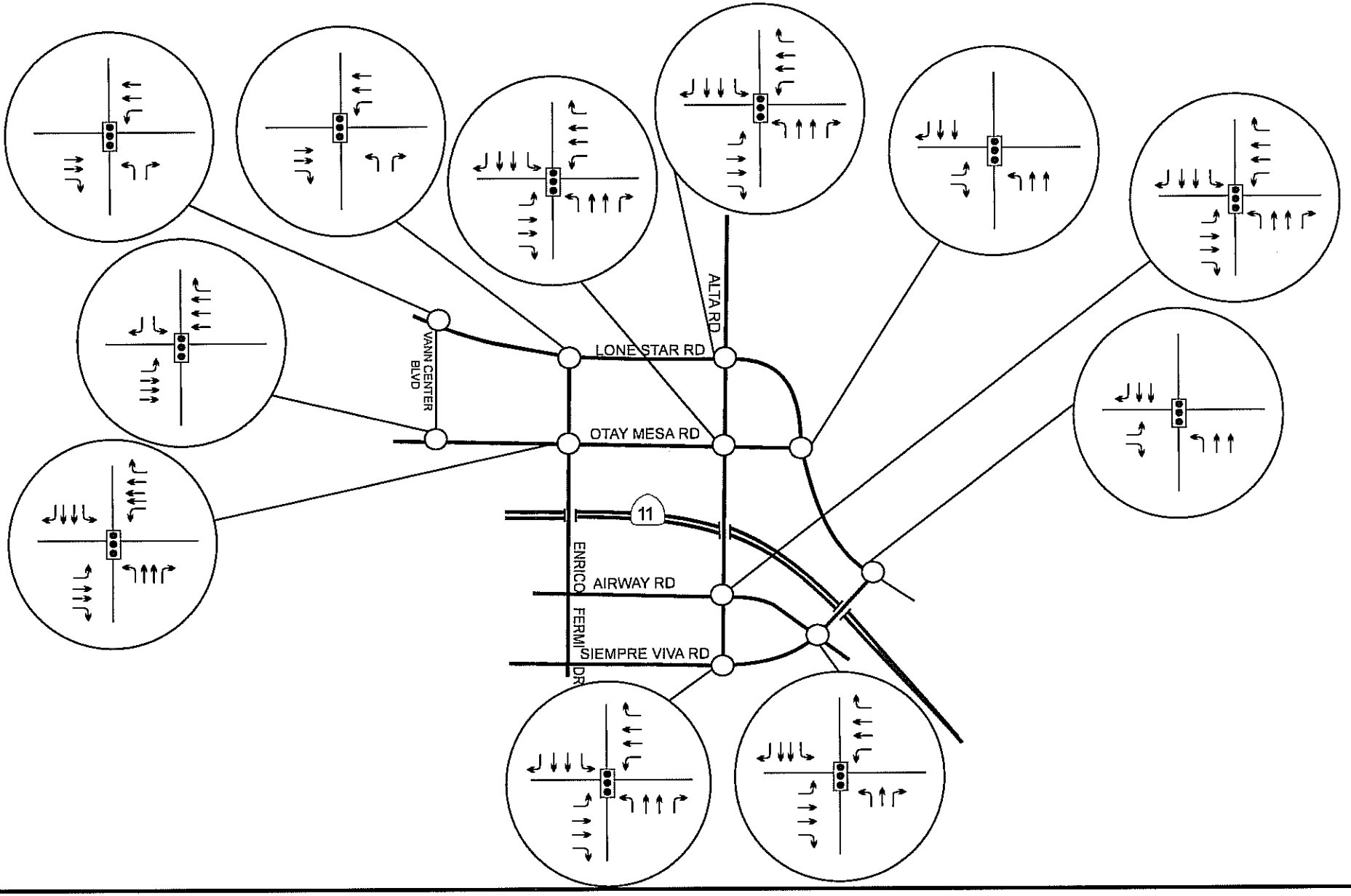


Opening Year (2015) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-32c

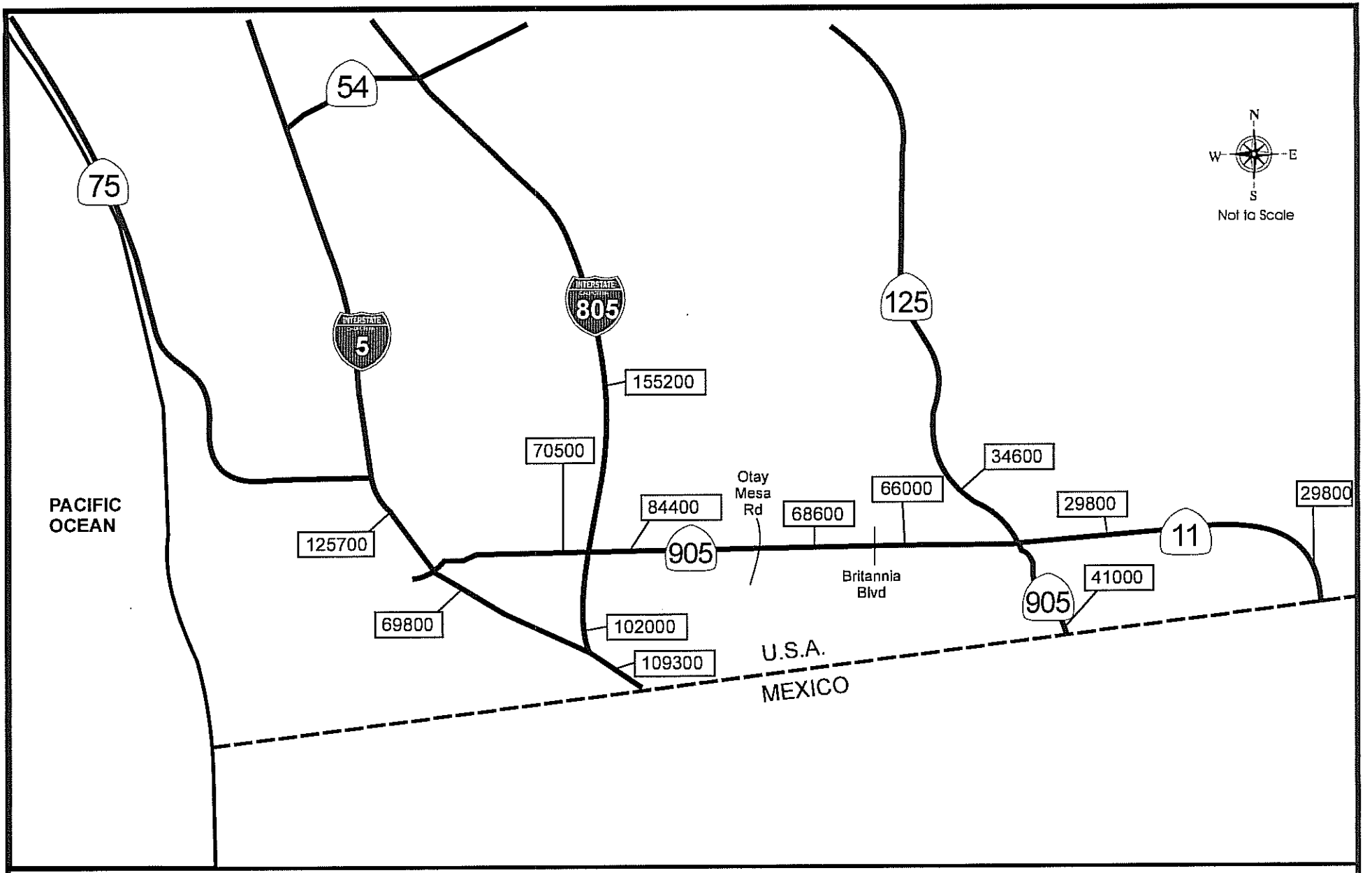


Opening Year (2015) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-32d



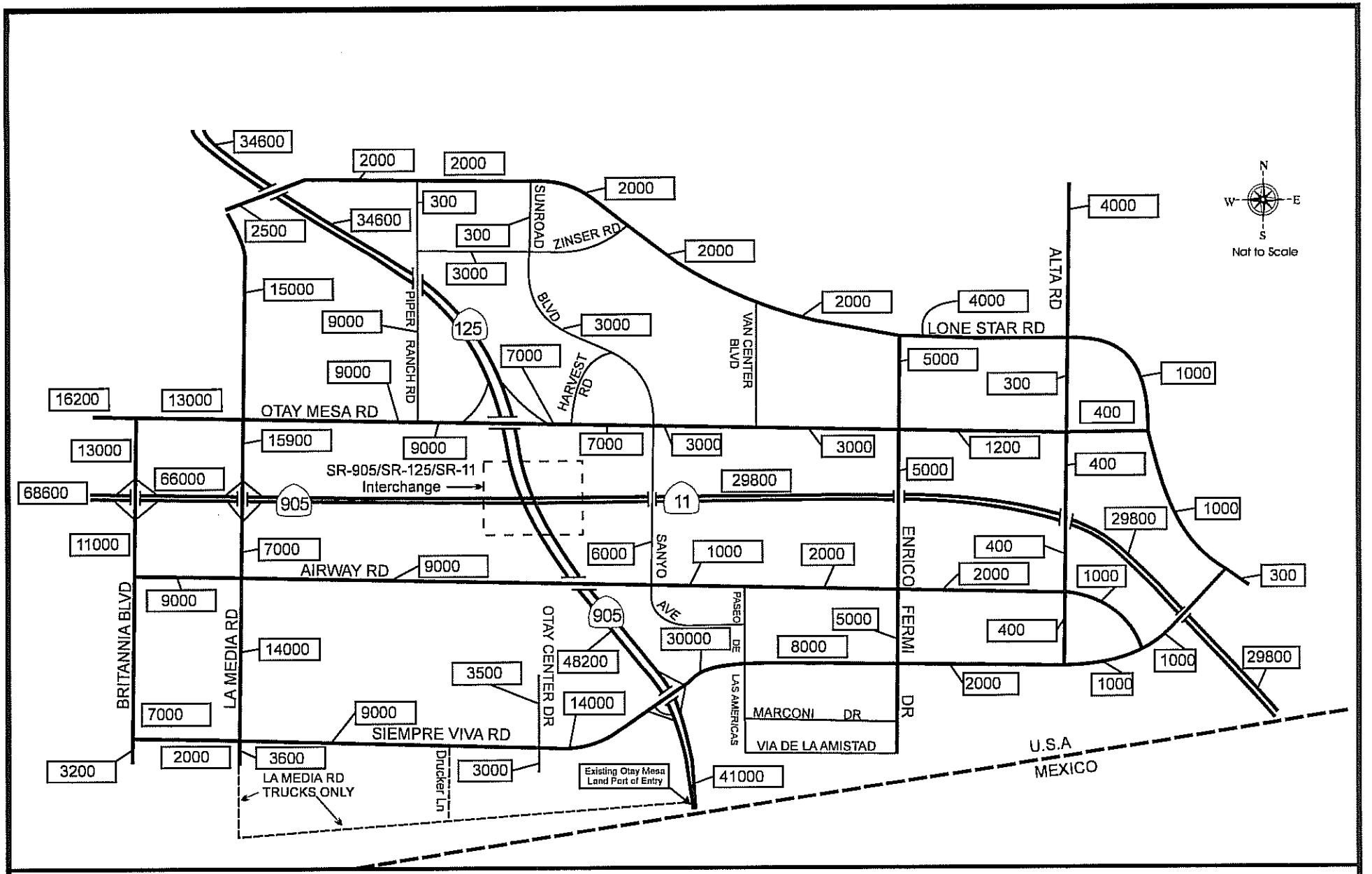
Opening Year (2015) Average Daily Traffic - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-33a



Opening Year (2015) Average Daily Traffic - No Toll / No Interchange Design Variation

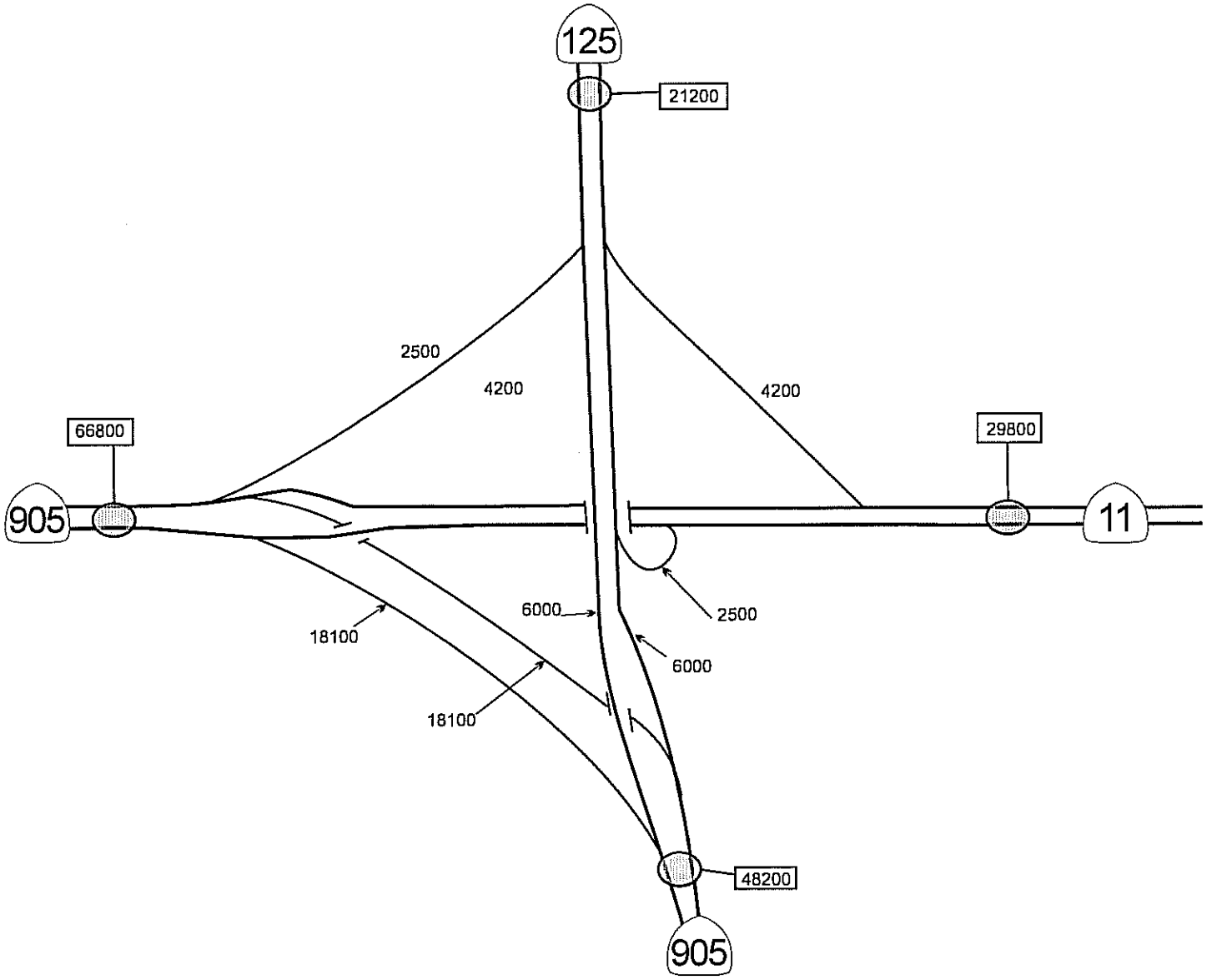
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-33b

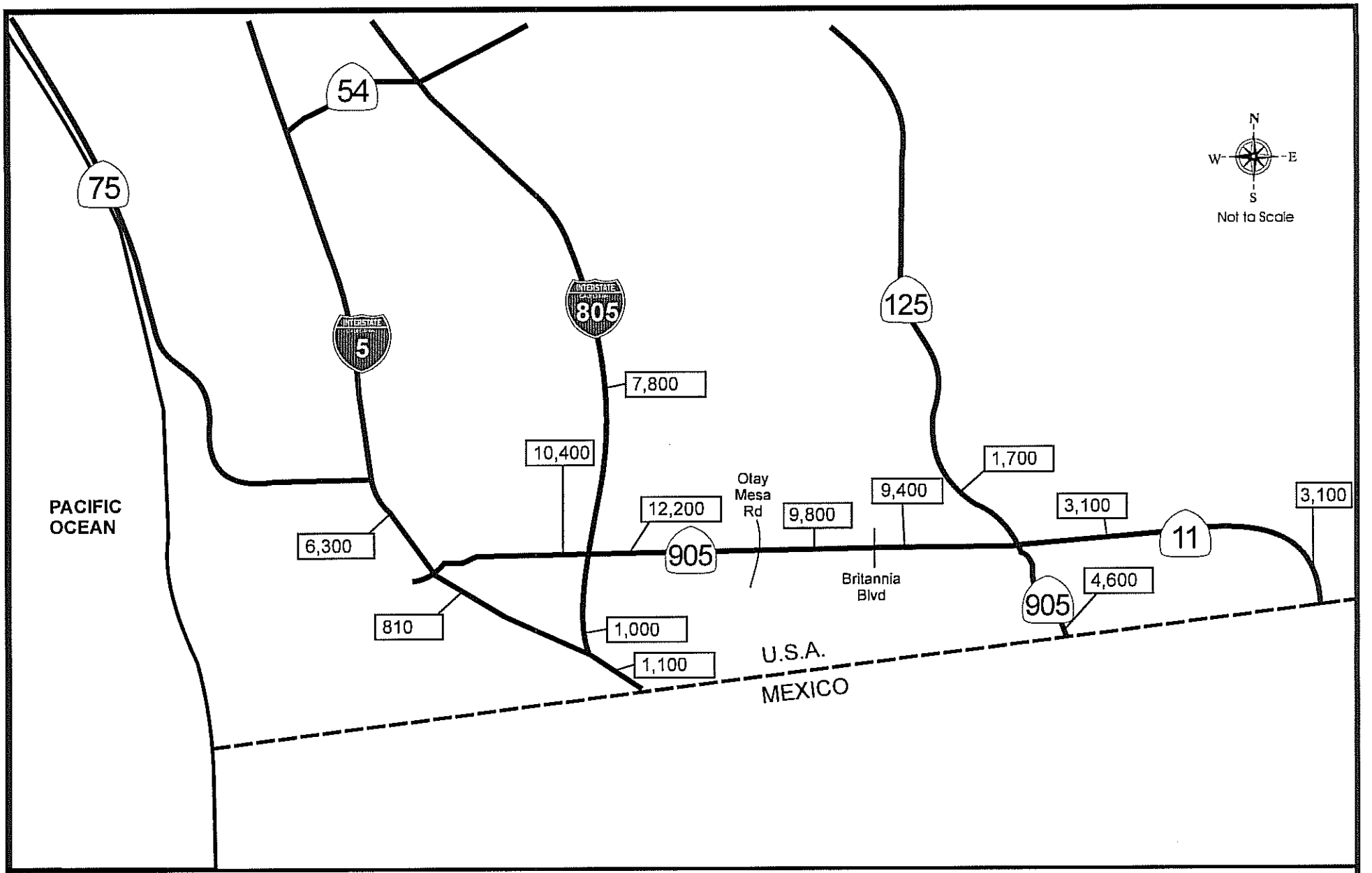


Opening Year (2015) Average Daily Traffic - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 4-33c



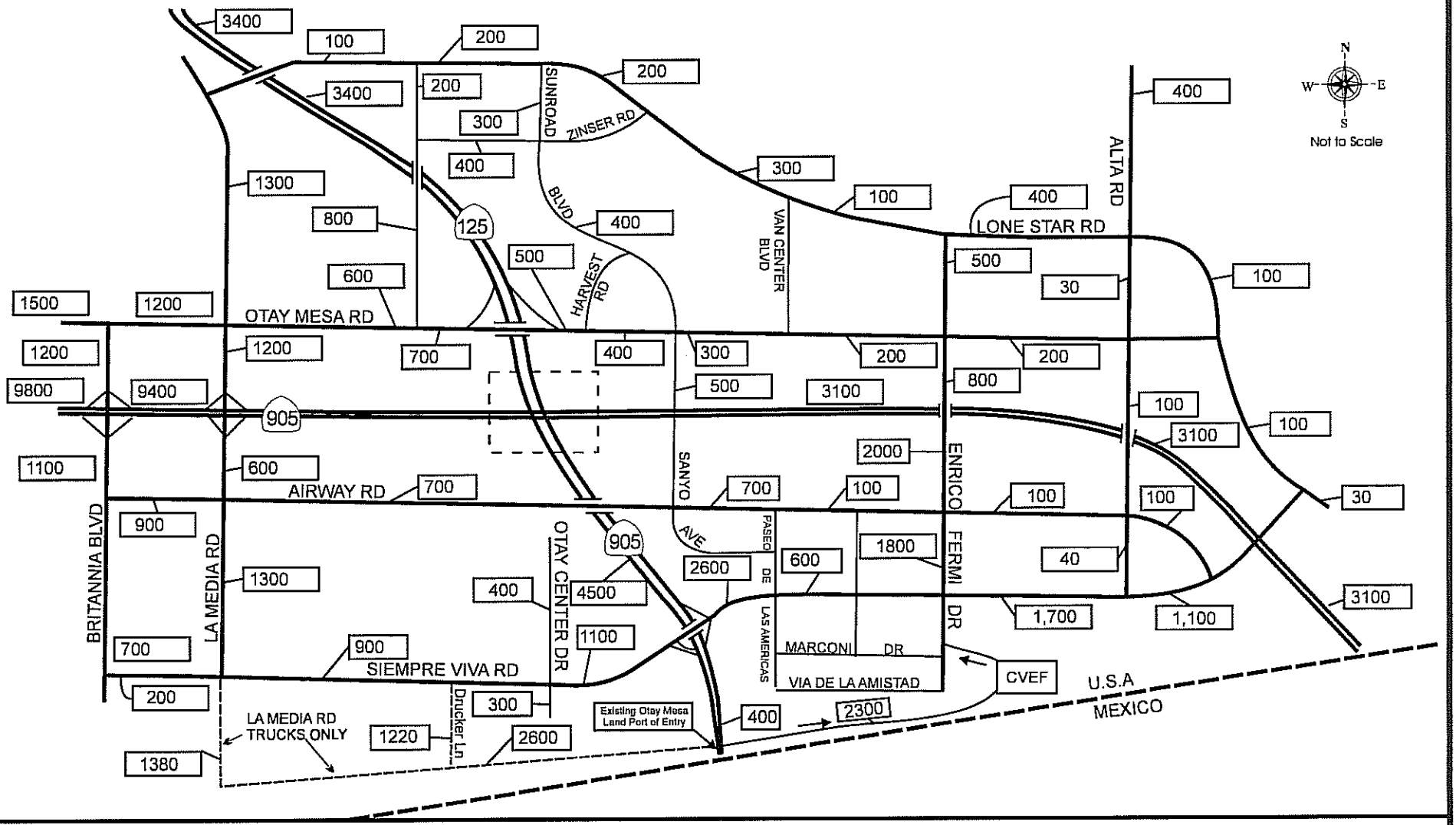
Opening Year (2015) Daily Truck Trips - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-34a



Opening Year (2015) Daily Truck Trips - No Toll / No Interchange Design Variation

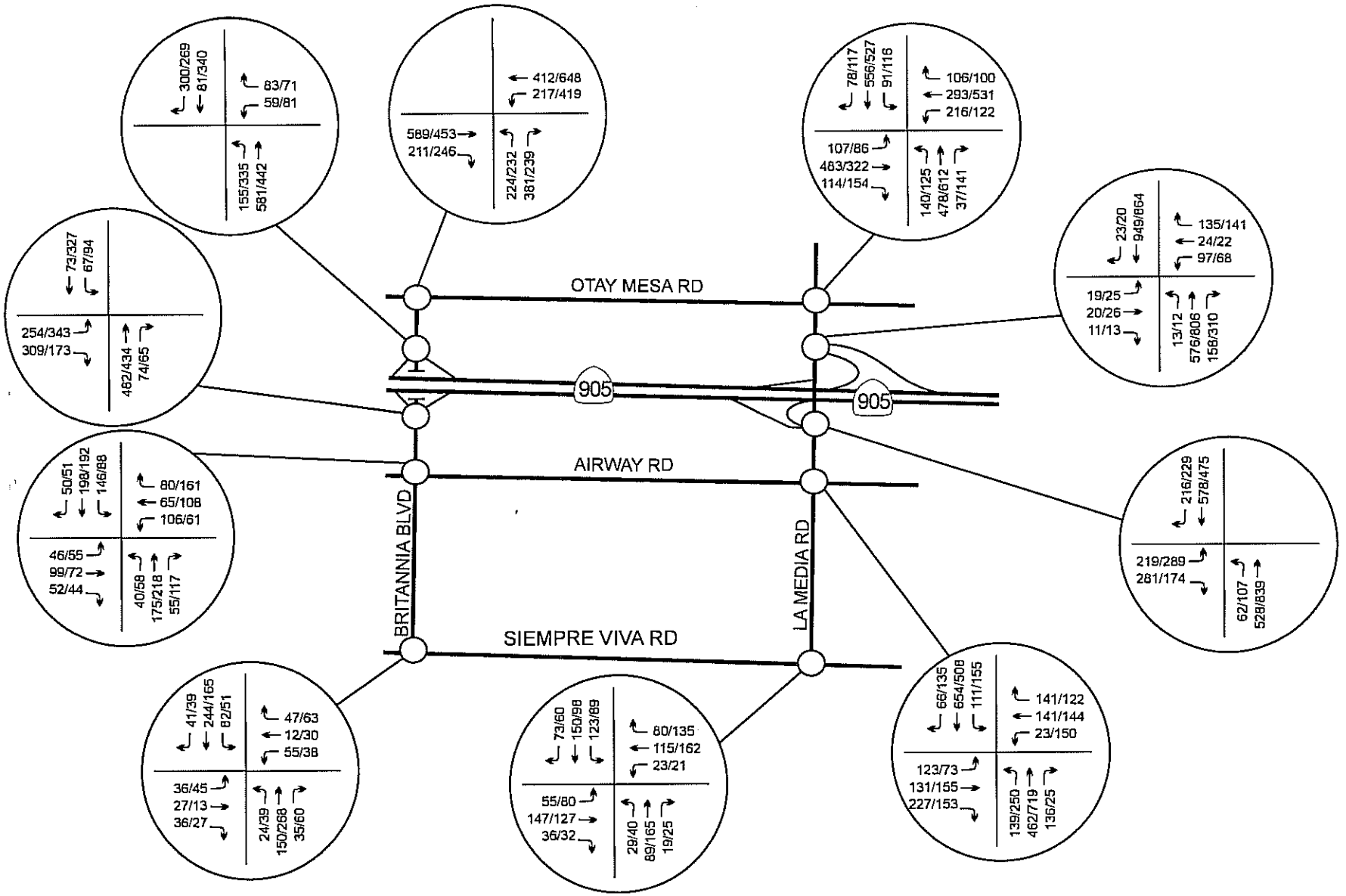
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-34b

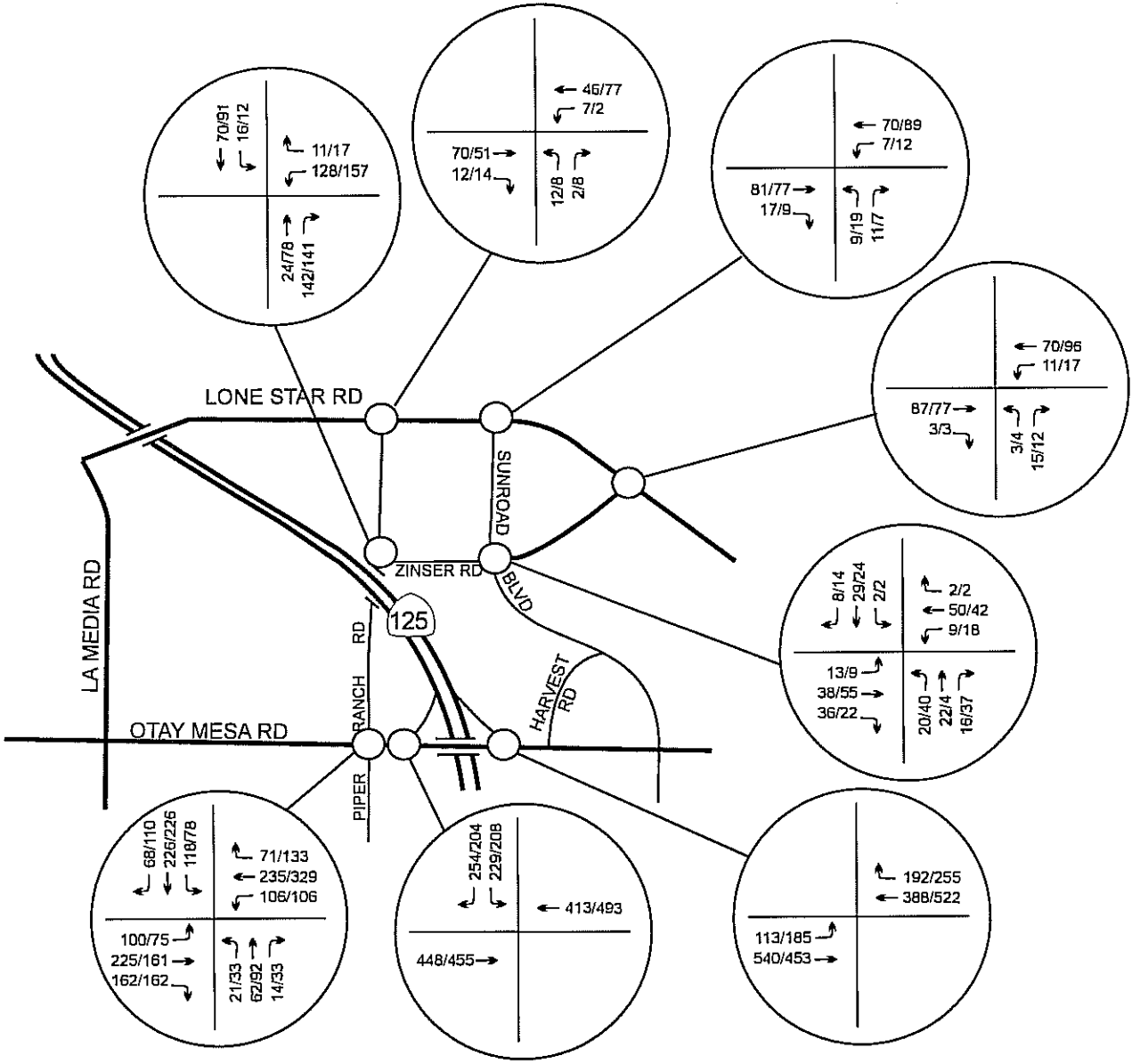


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-35a

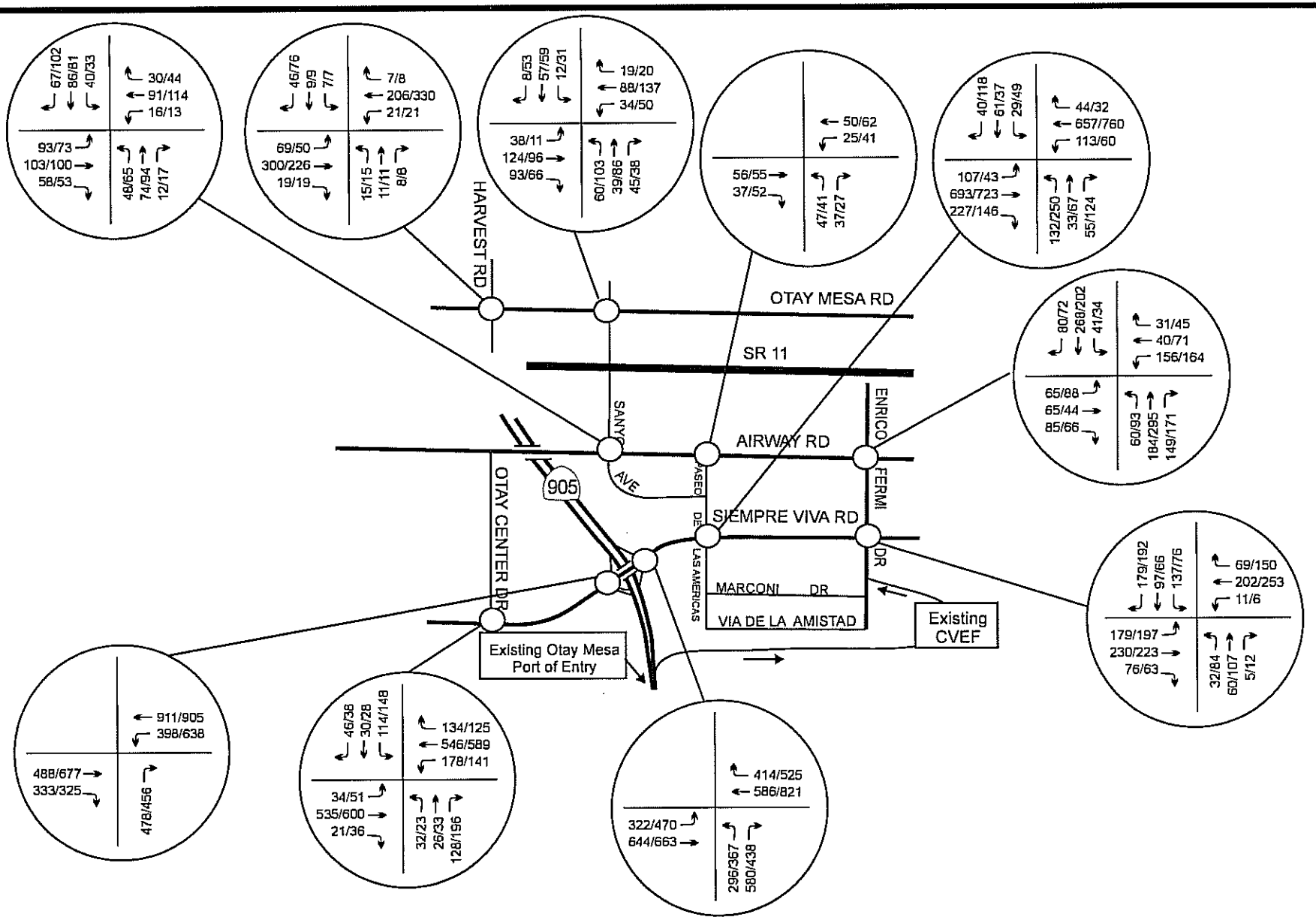


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-35b

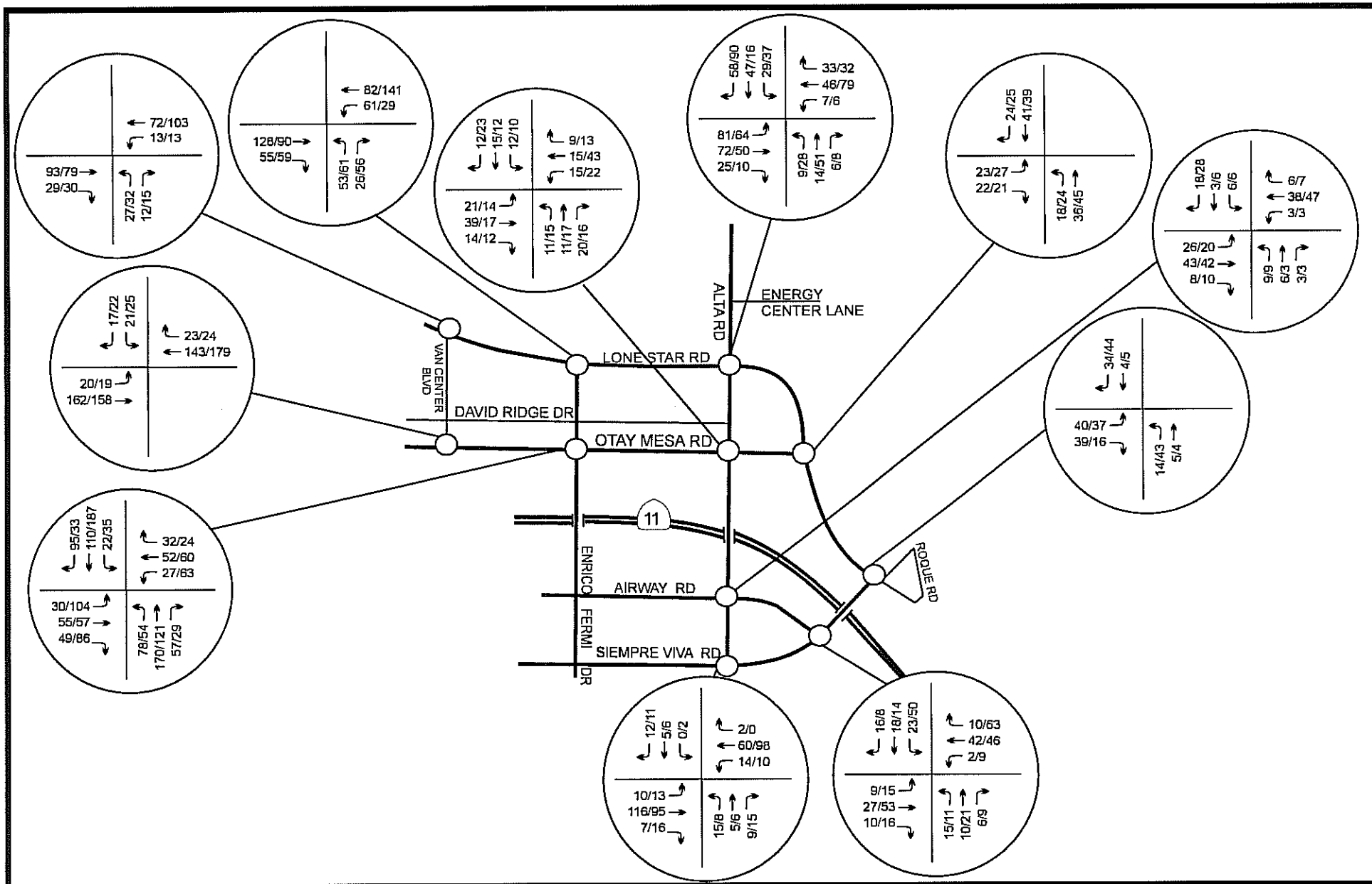


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-35c

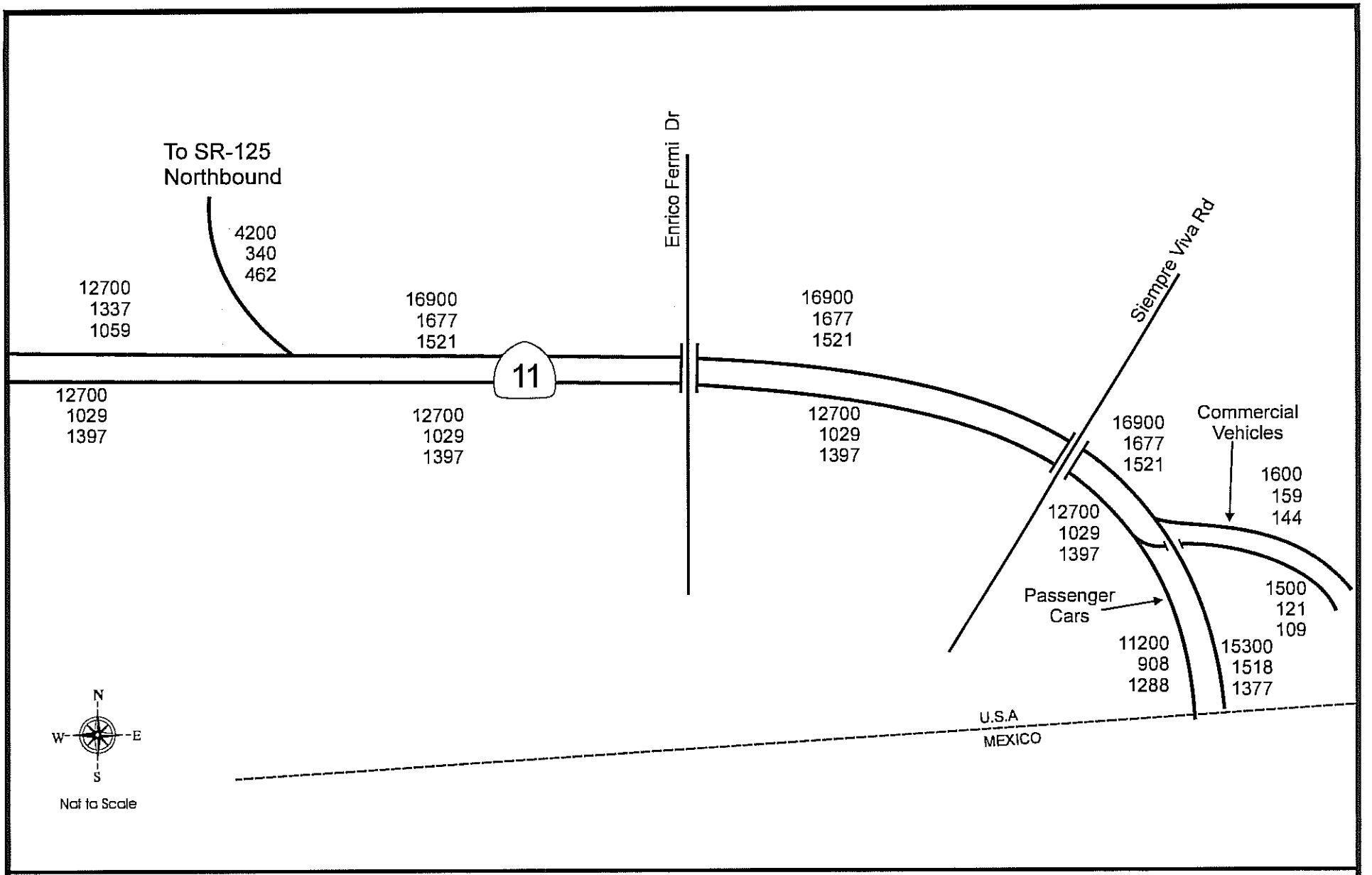


Opening Year (2015) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-35d

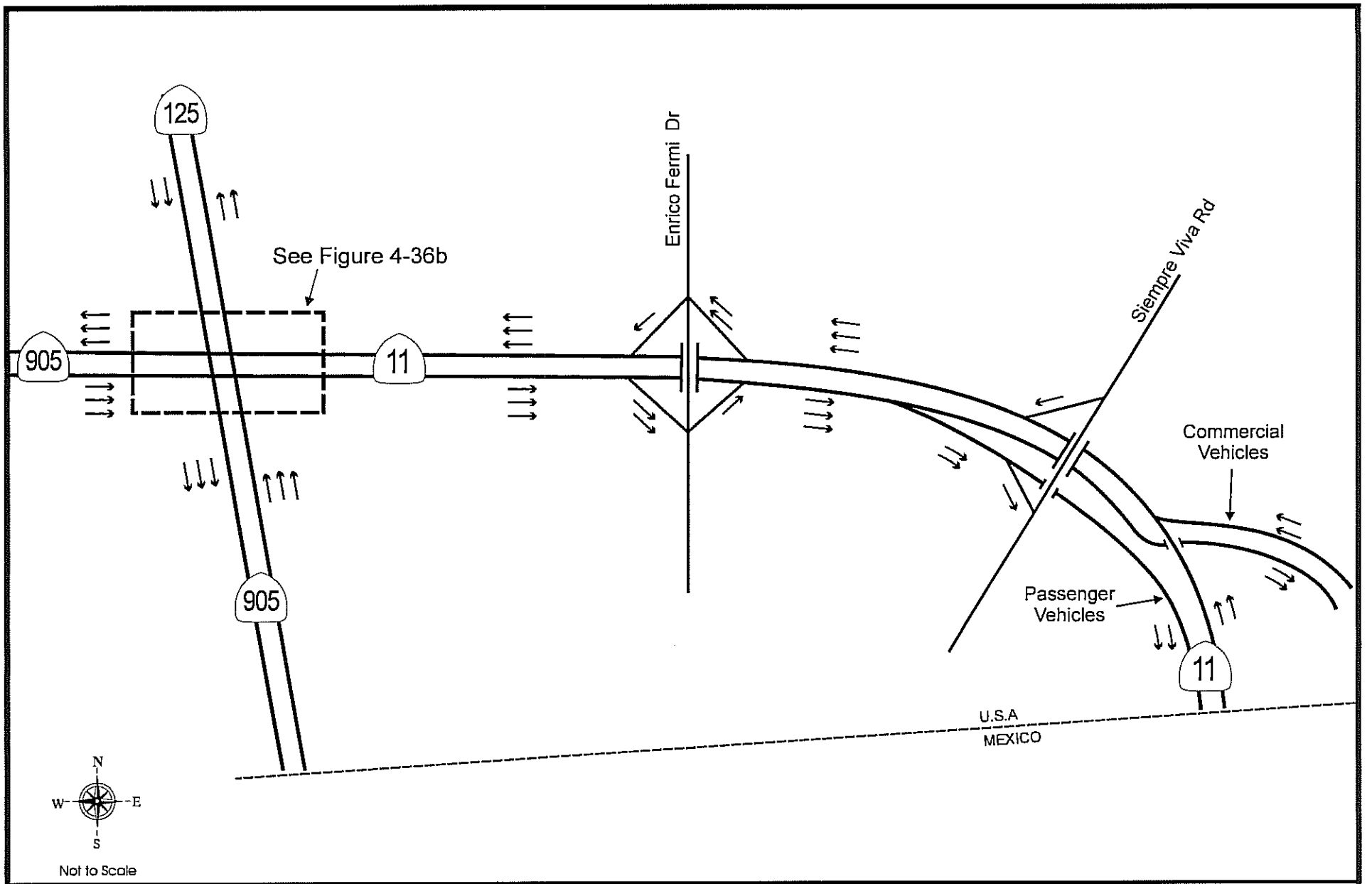


Opening Year (2015) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - No Toll/No Interchange Design Variation

Legend

XXXXX	Average Daily Traffic
XXXX	AM Peak Hour
XXXX	PM Peak Hour

Figure 4-35e

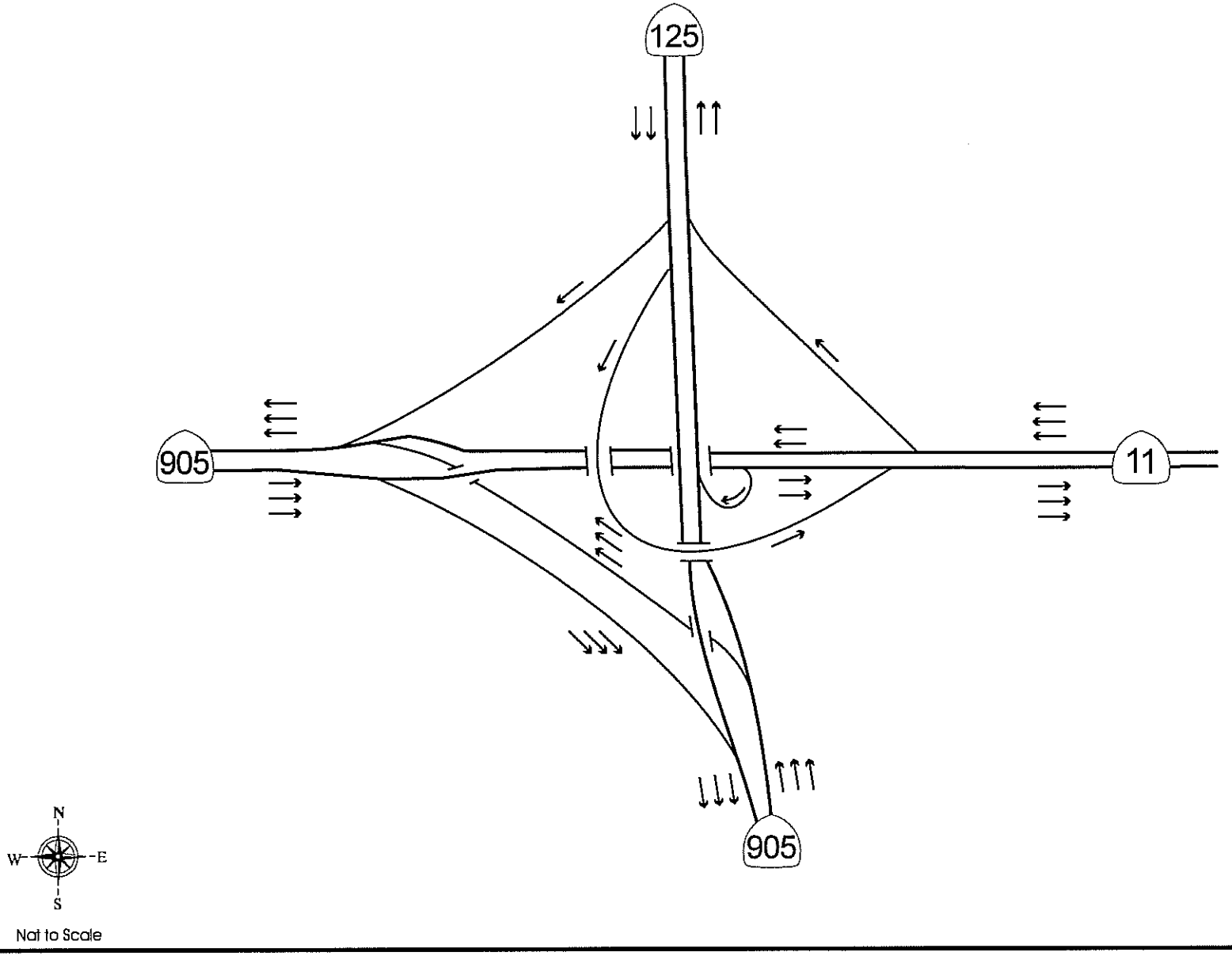


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-36a

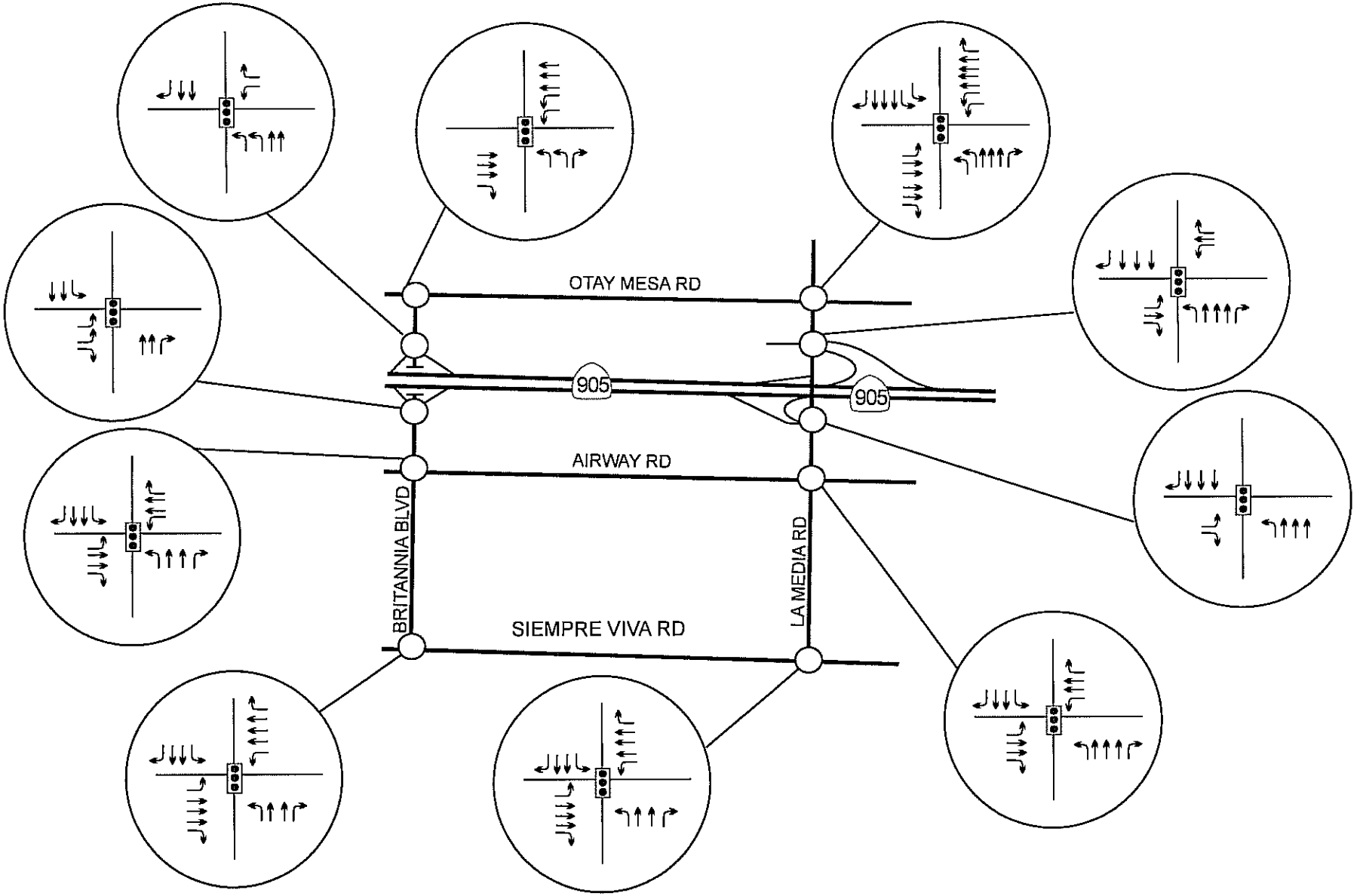


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-36b



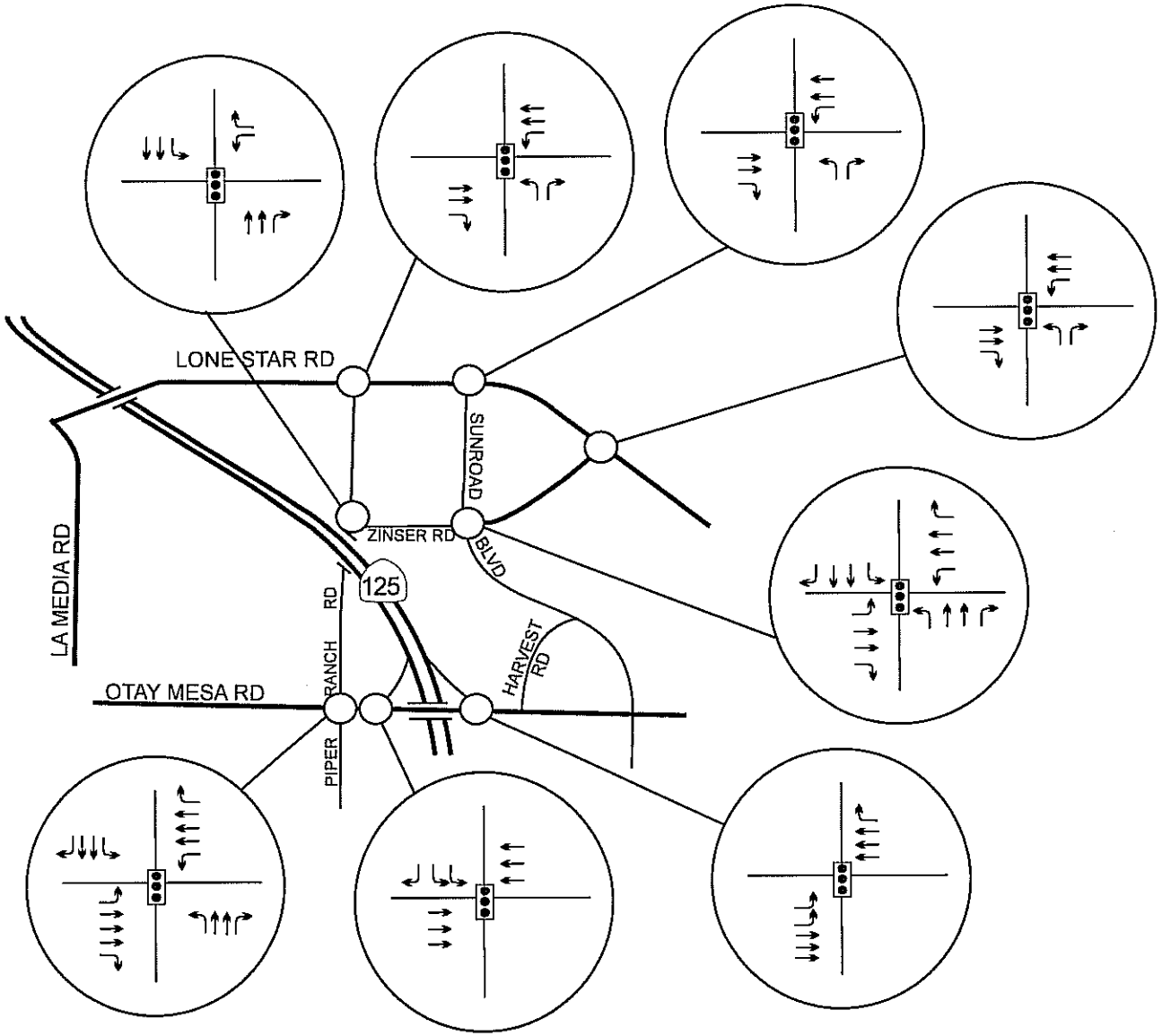
Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-37a



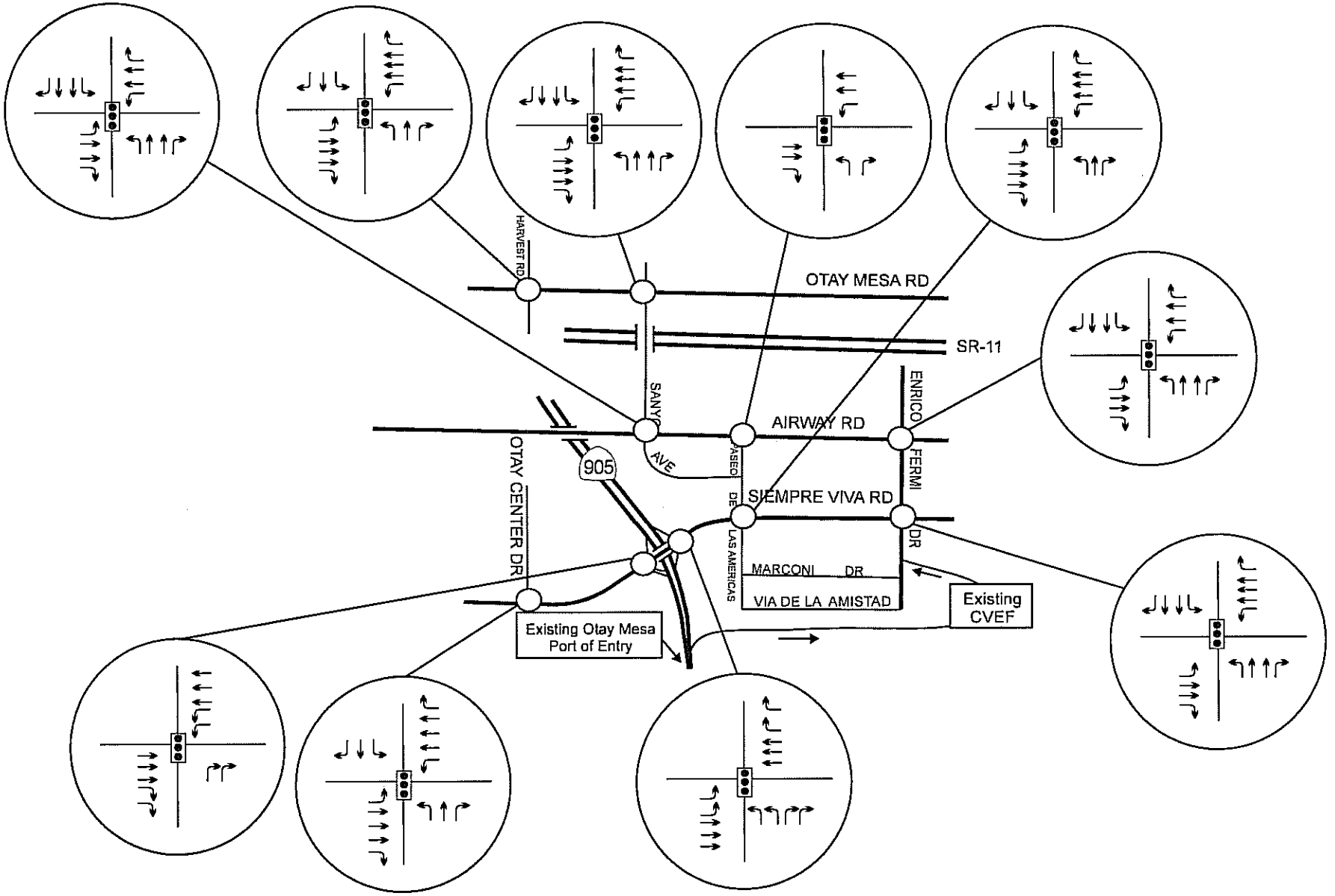
Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-37b



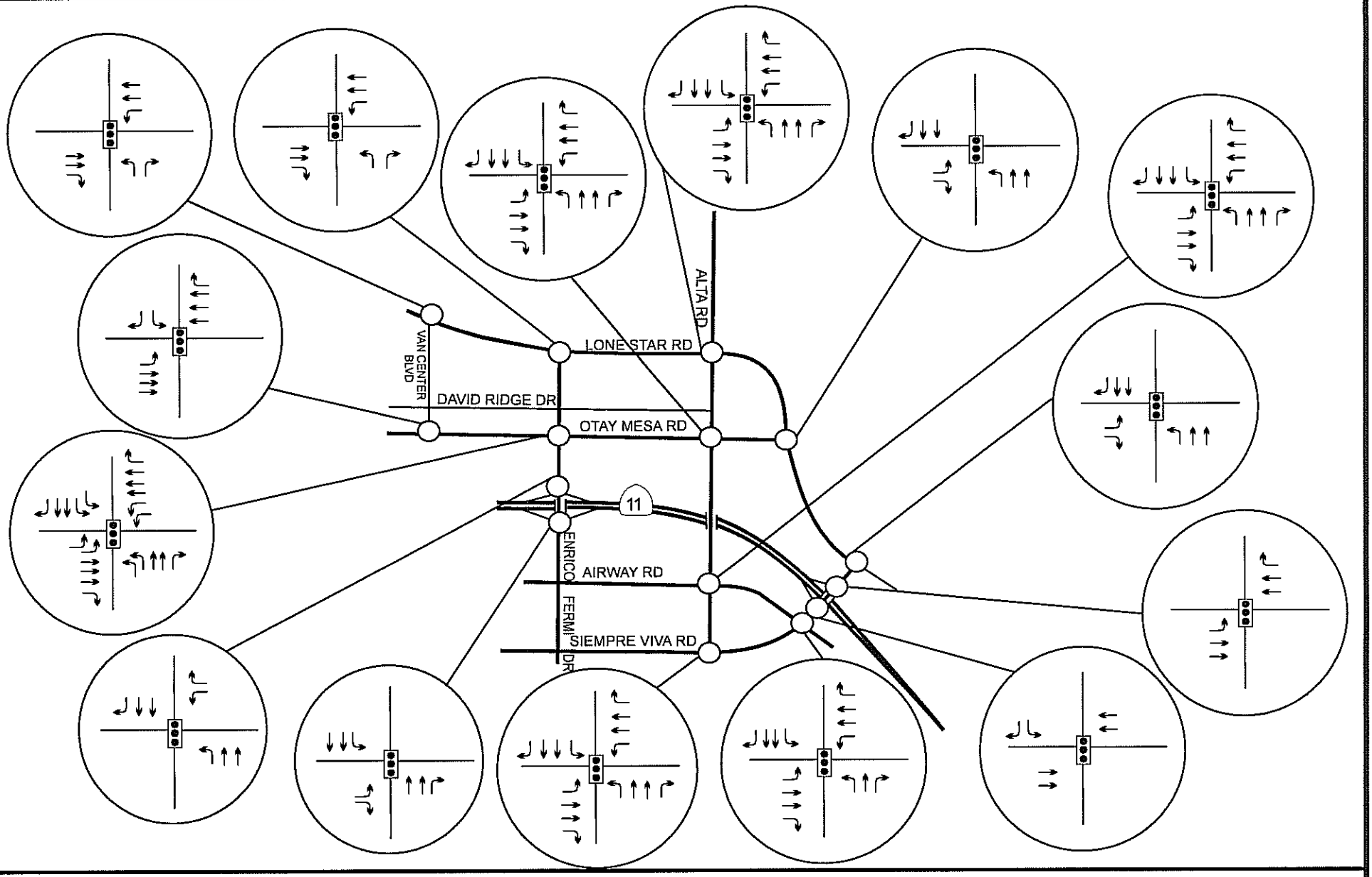
Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-37c



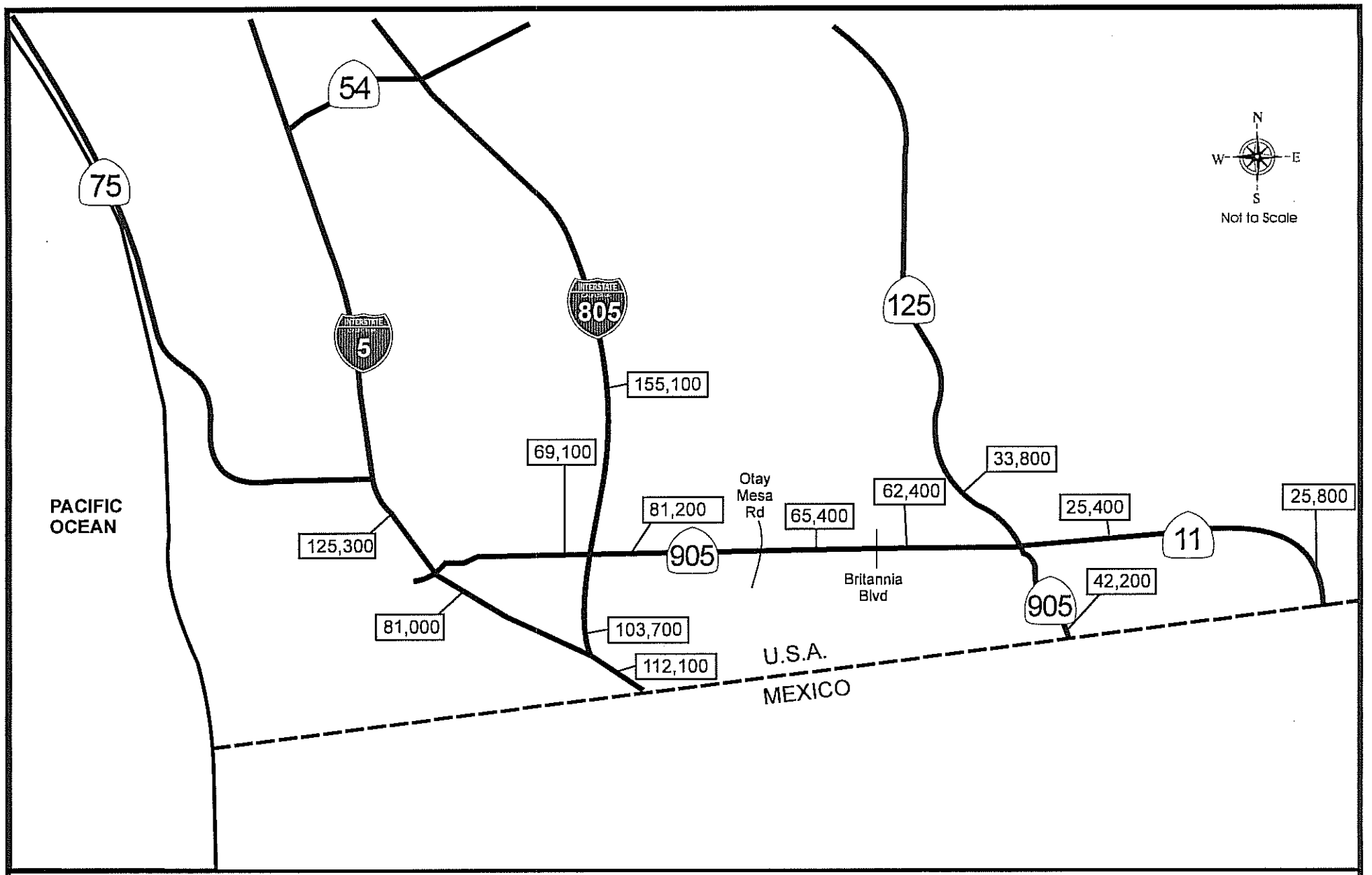
Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-37d



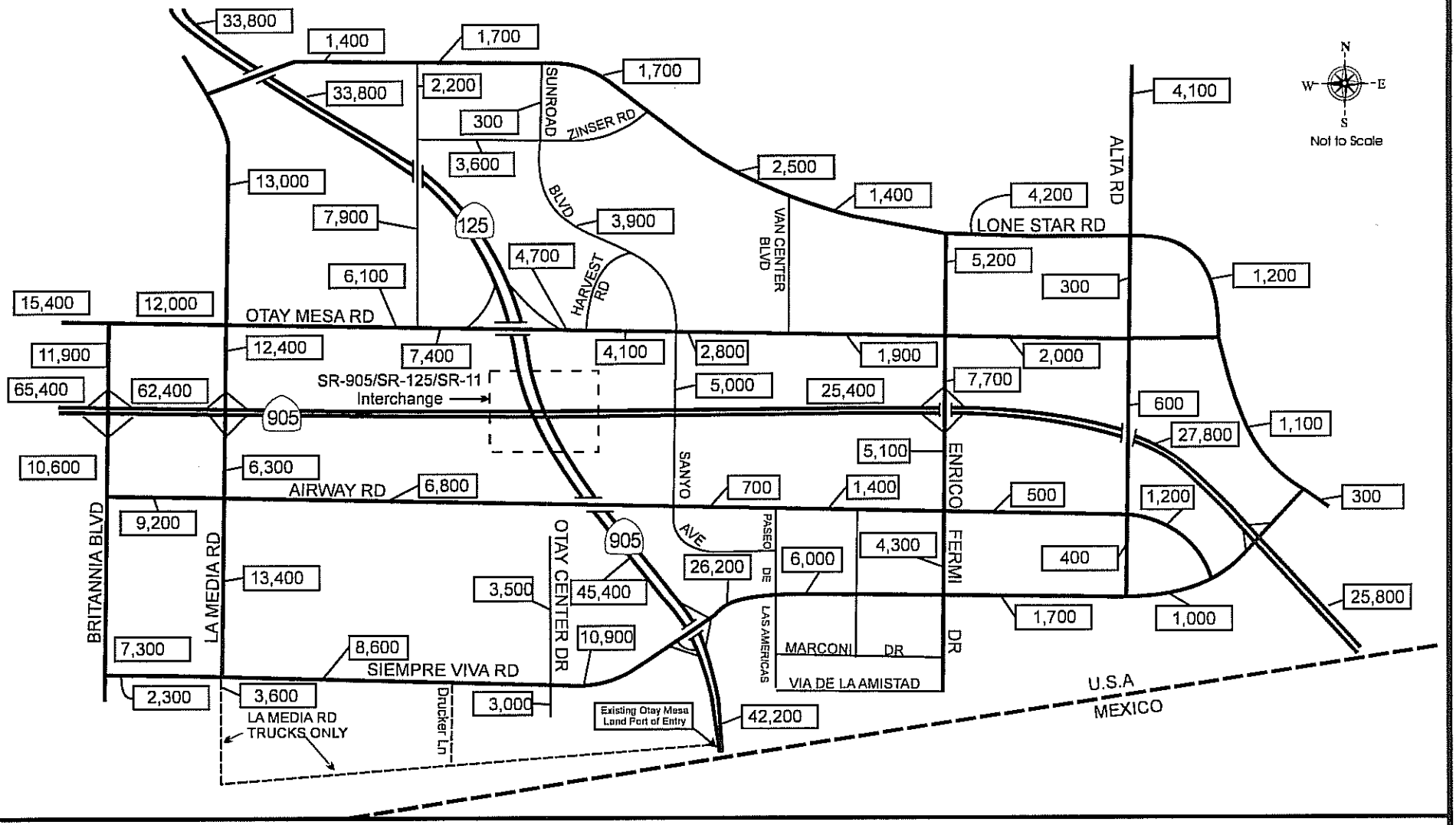
Opening Year (2015) Average Daily Traffic -
SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-38a



Opening Year (2015) Average Daily Traffic - SR-125 Connector/Two Interchange Design Variation

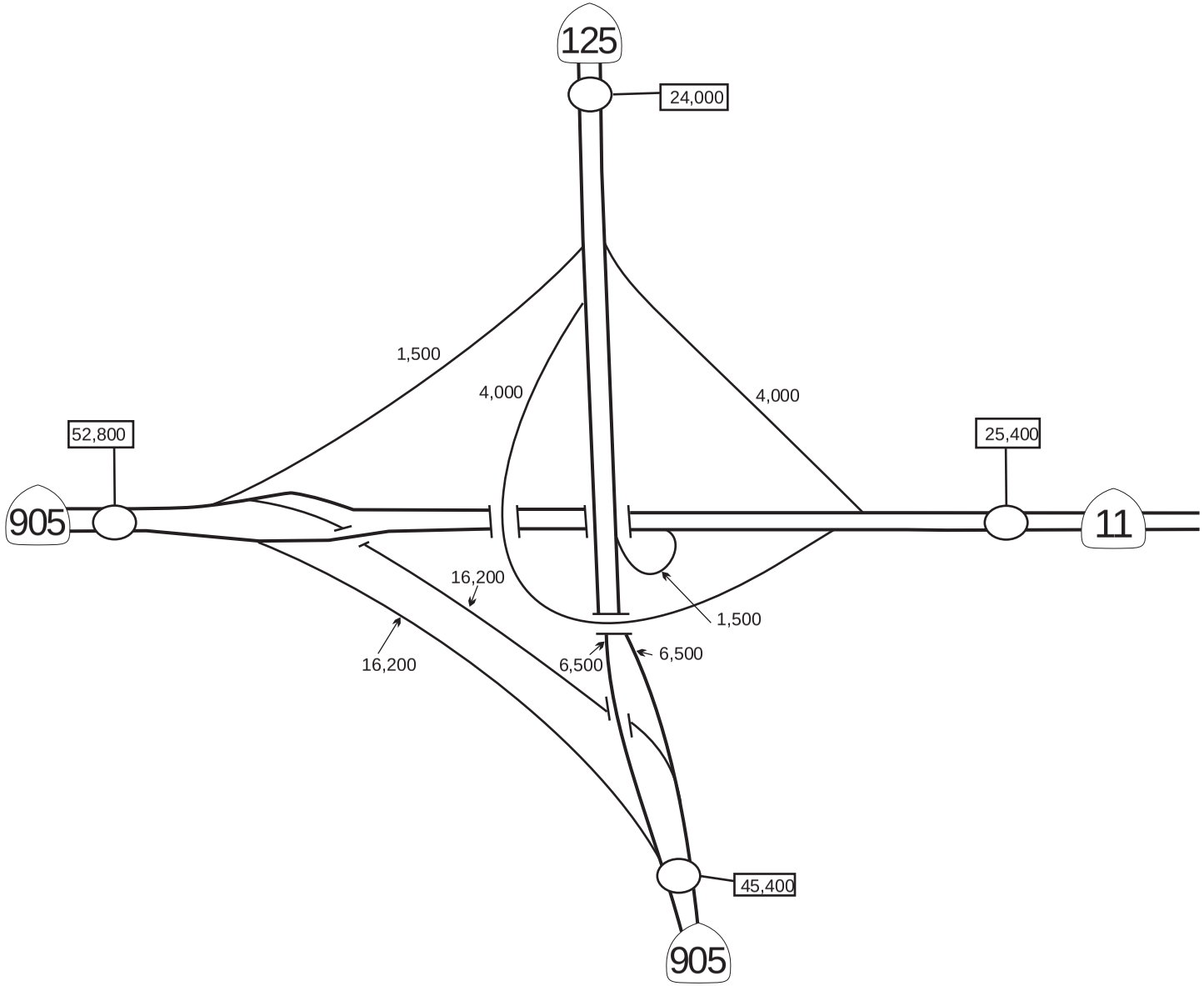
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-38b

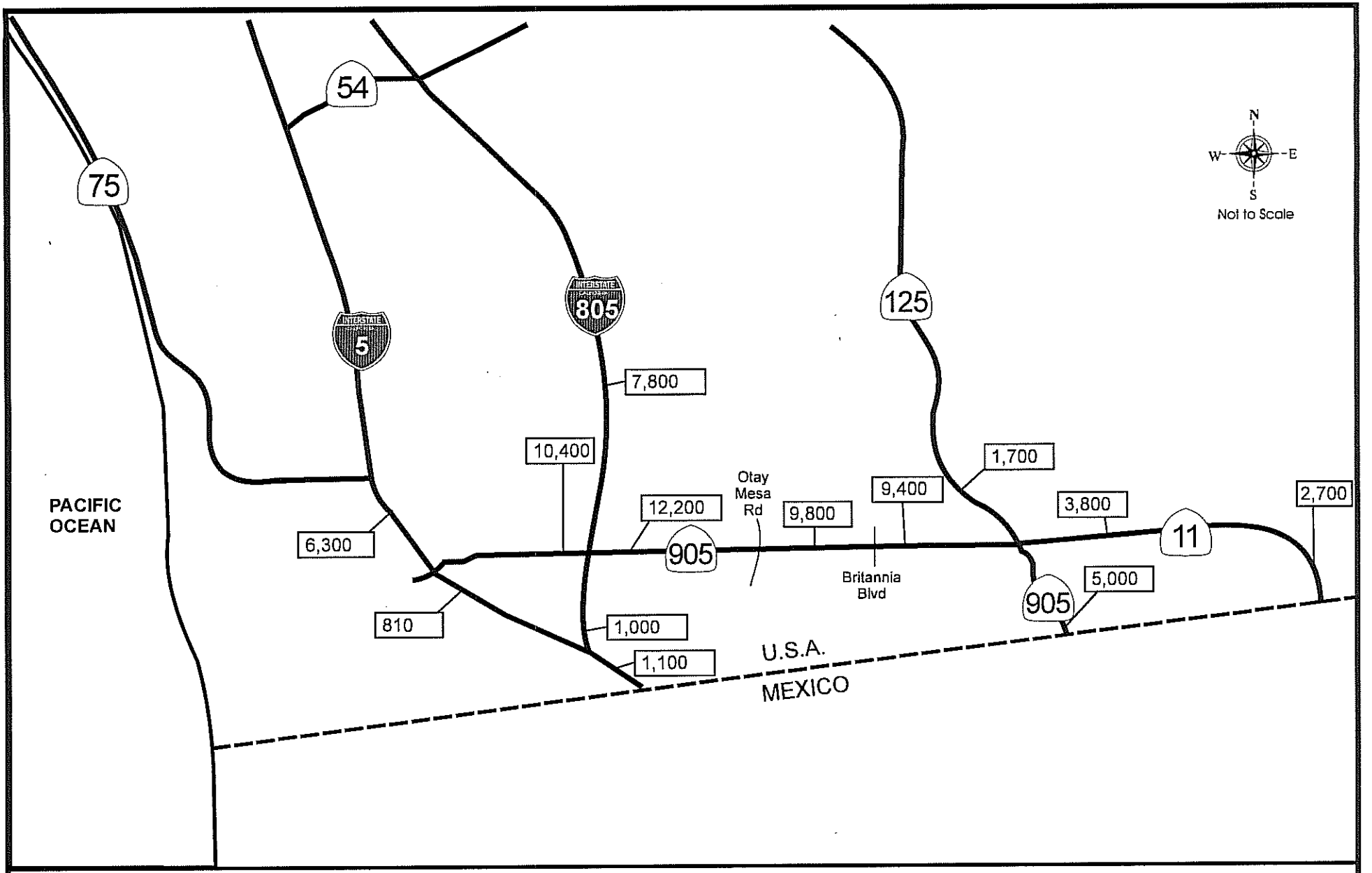


Opening Year (2015) Average Daily Traffic - SR-125 Connector/Two Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-38c



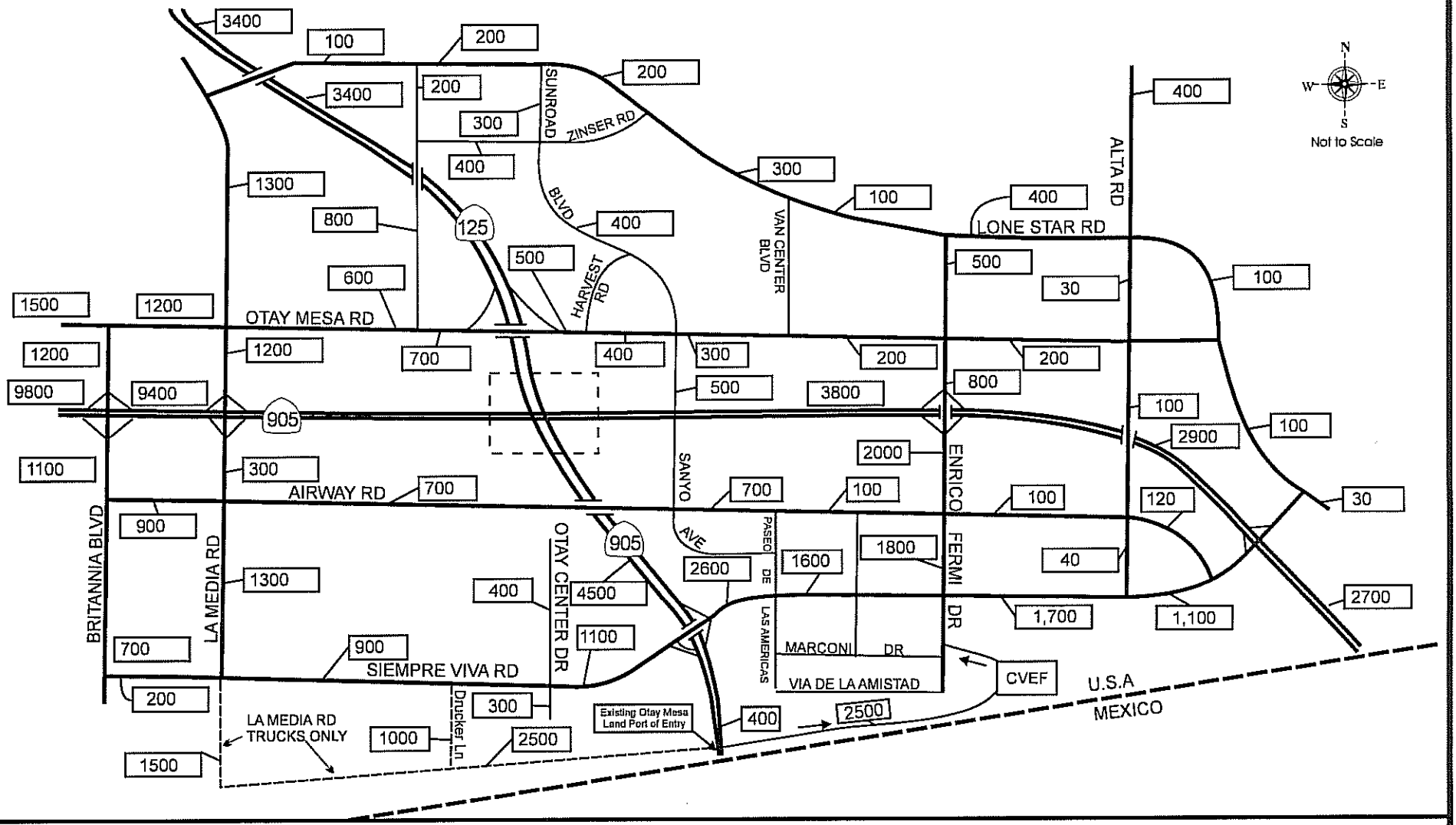
Opening Year (2015) Daily Truck Trips -
SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-39a

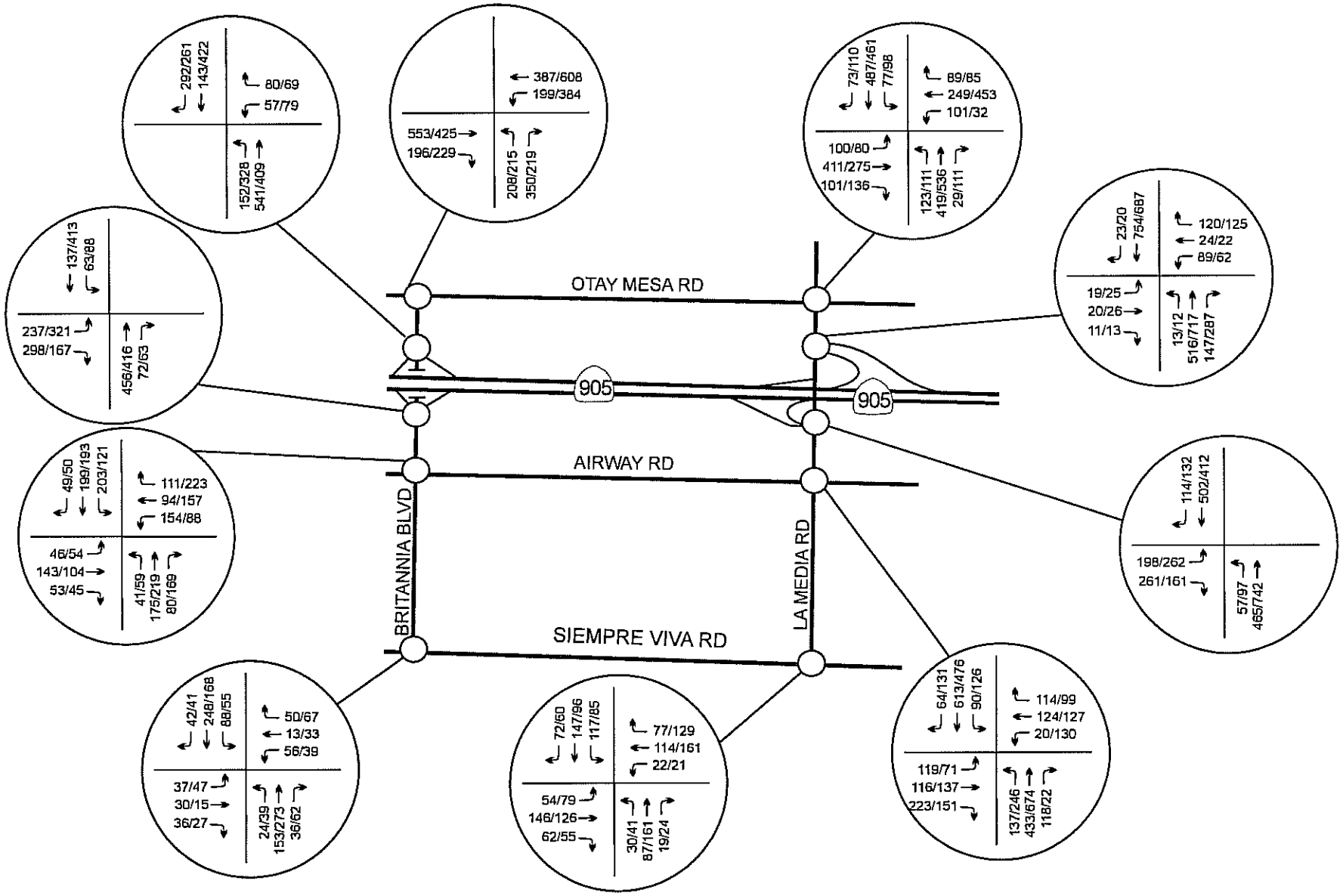


Opening Year (2015) Daily Truck Trips - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 4-39b

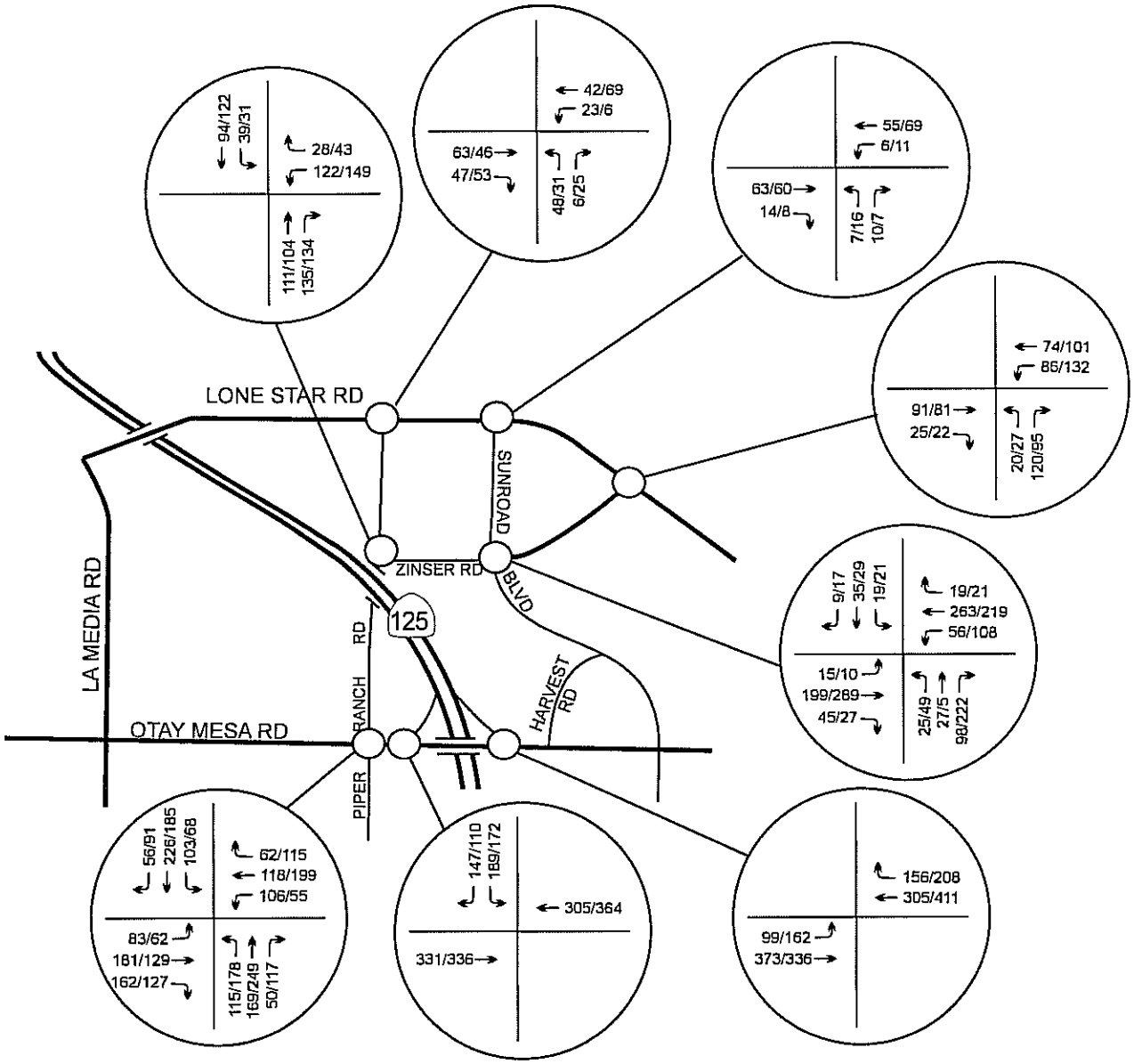


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-40a

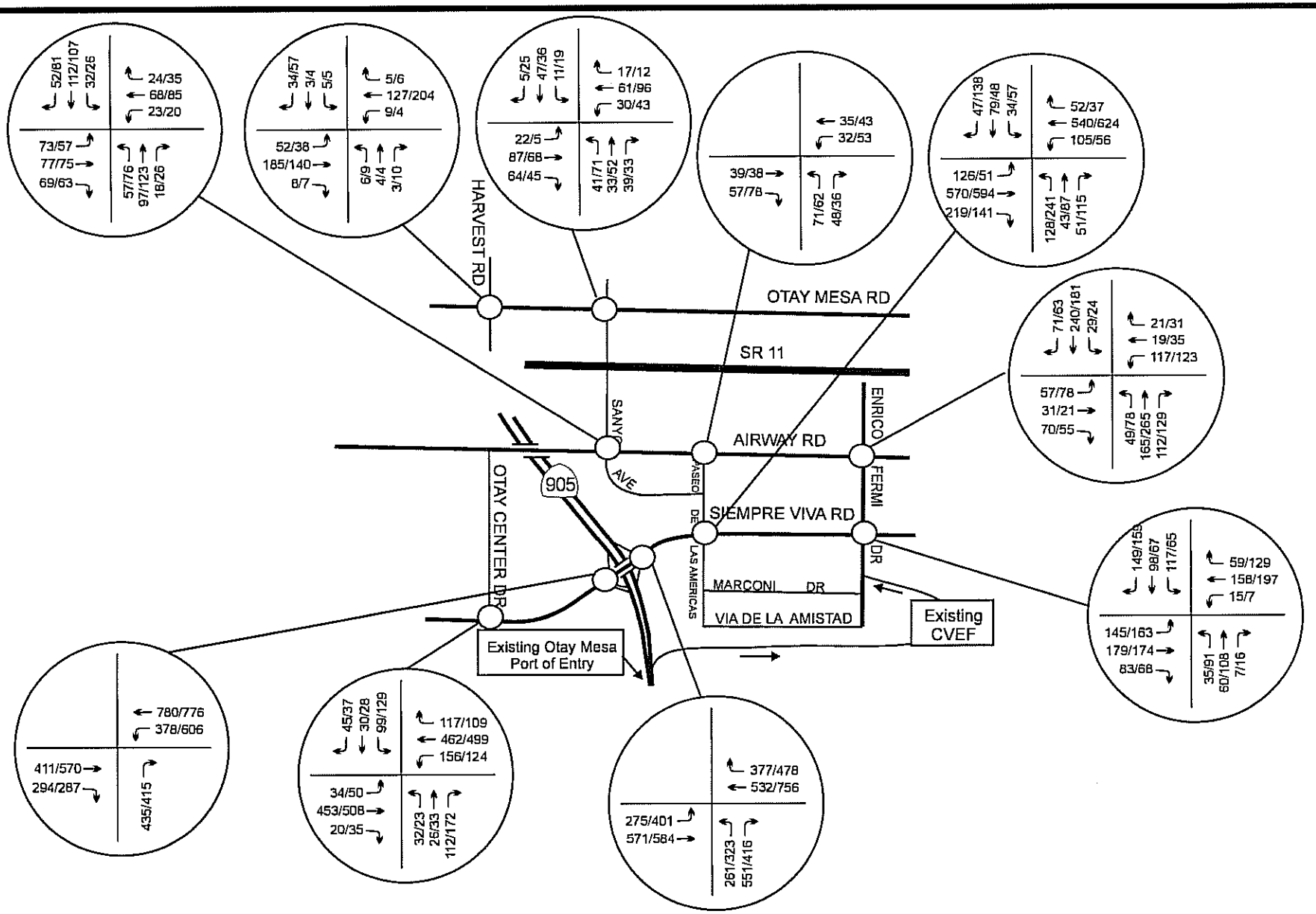


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-40b

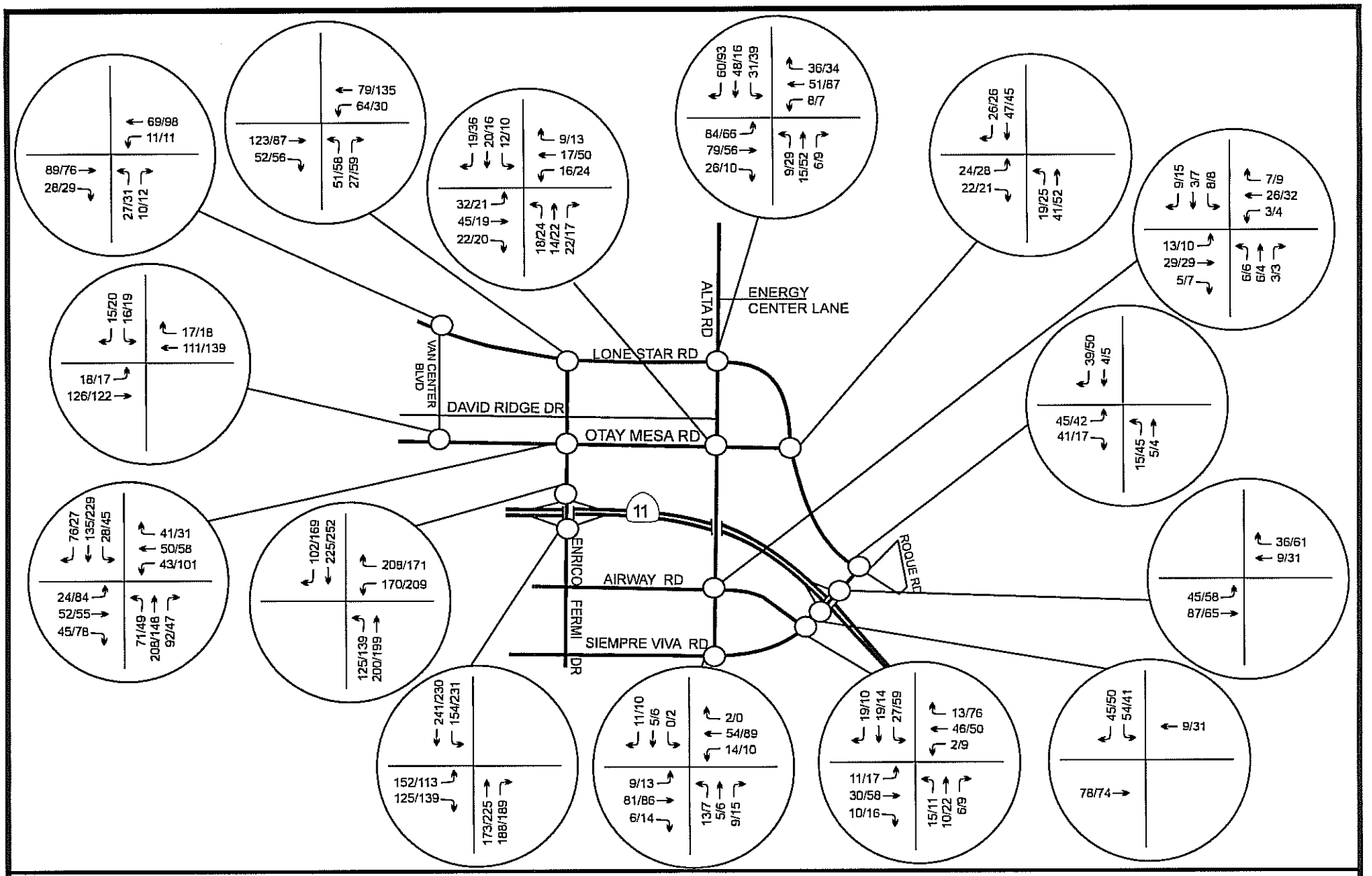


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-40c

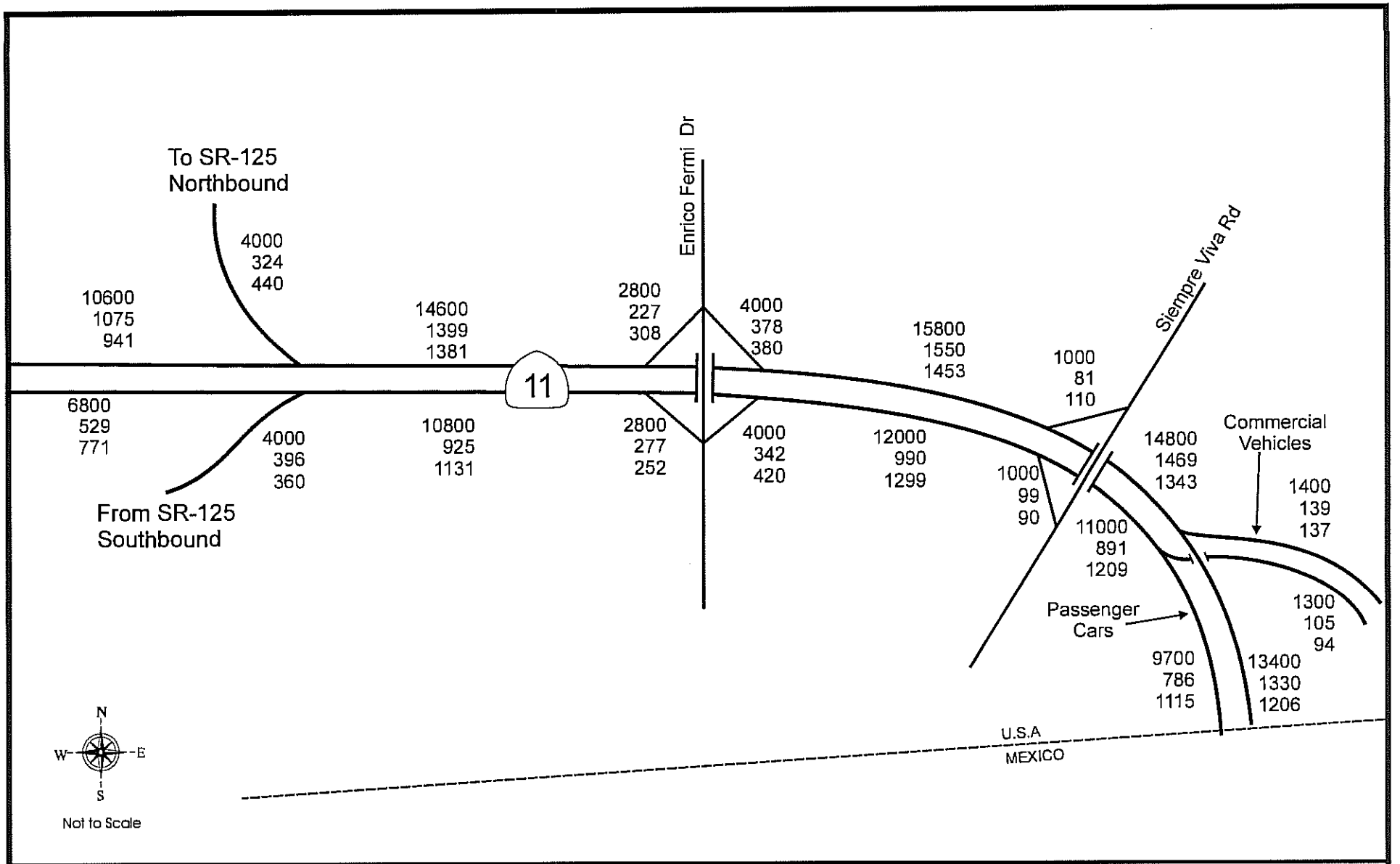


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-40d

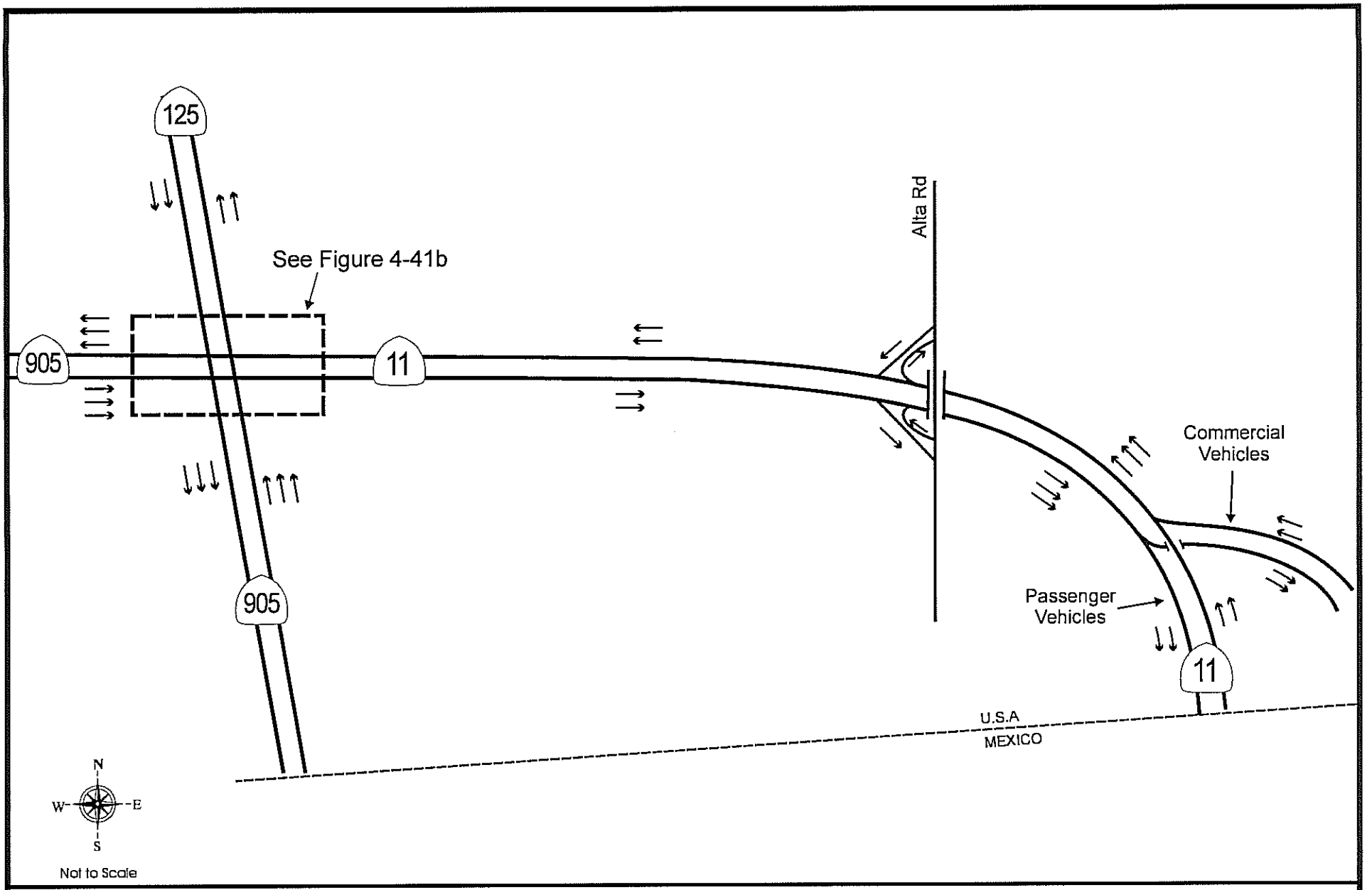


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-125 Connector/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-40e

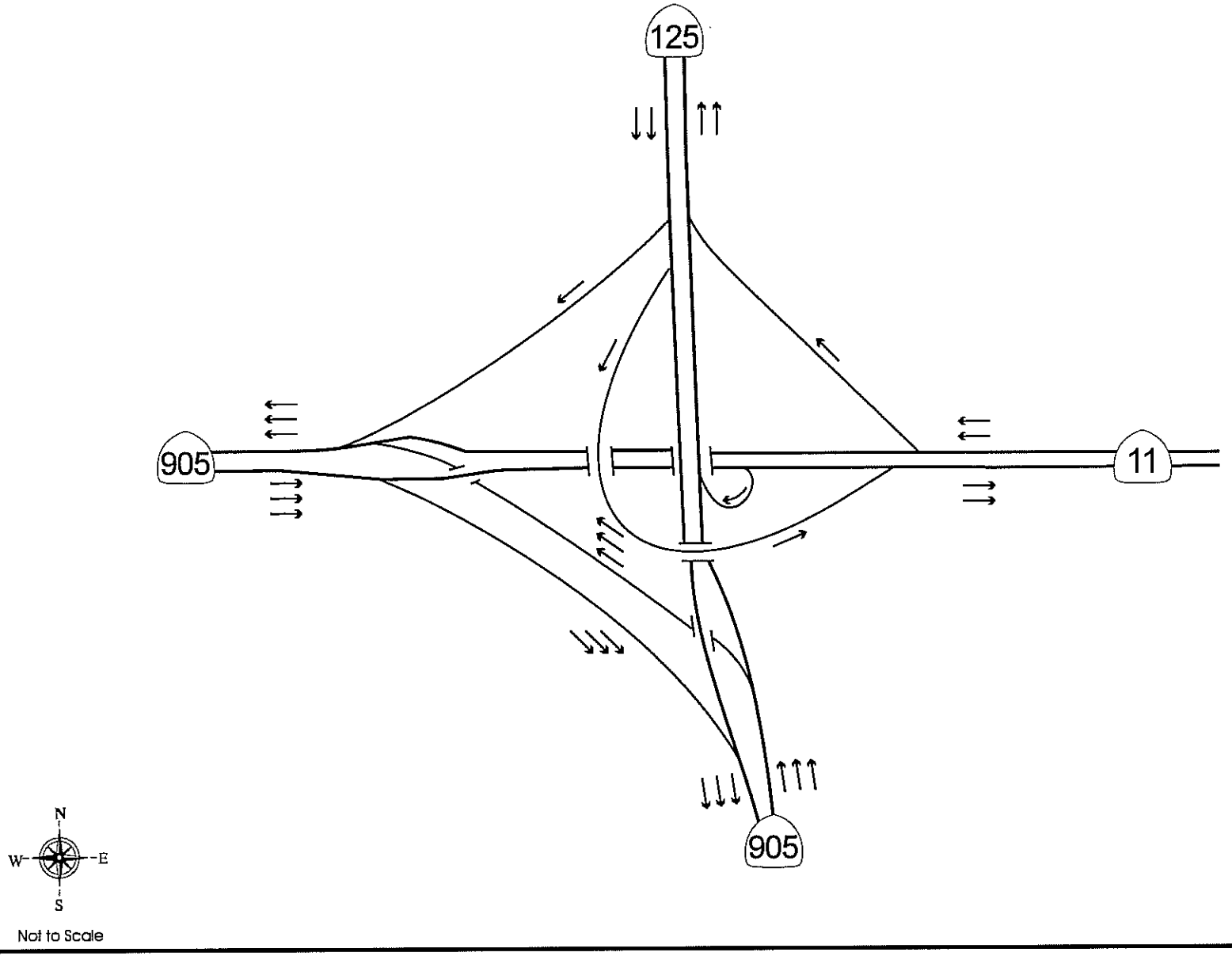


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-41a

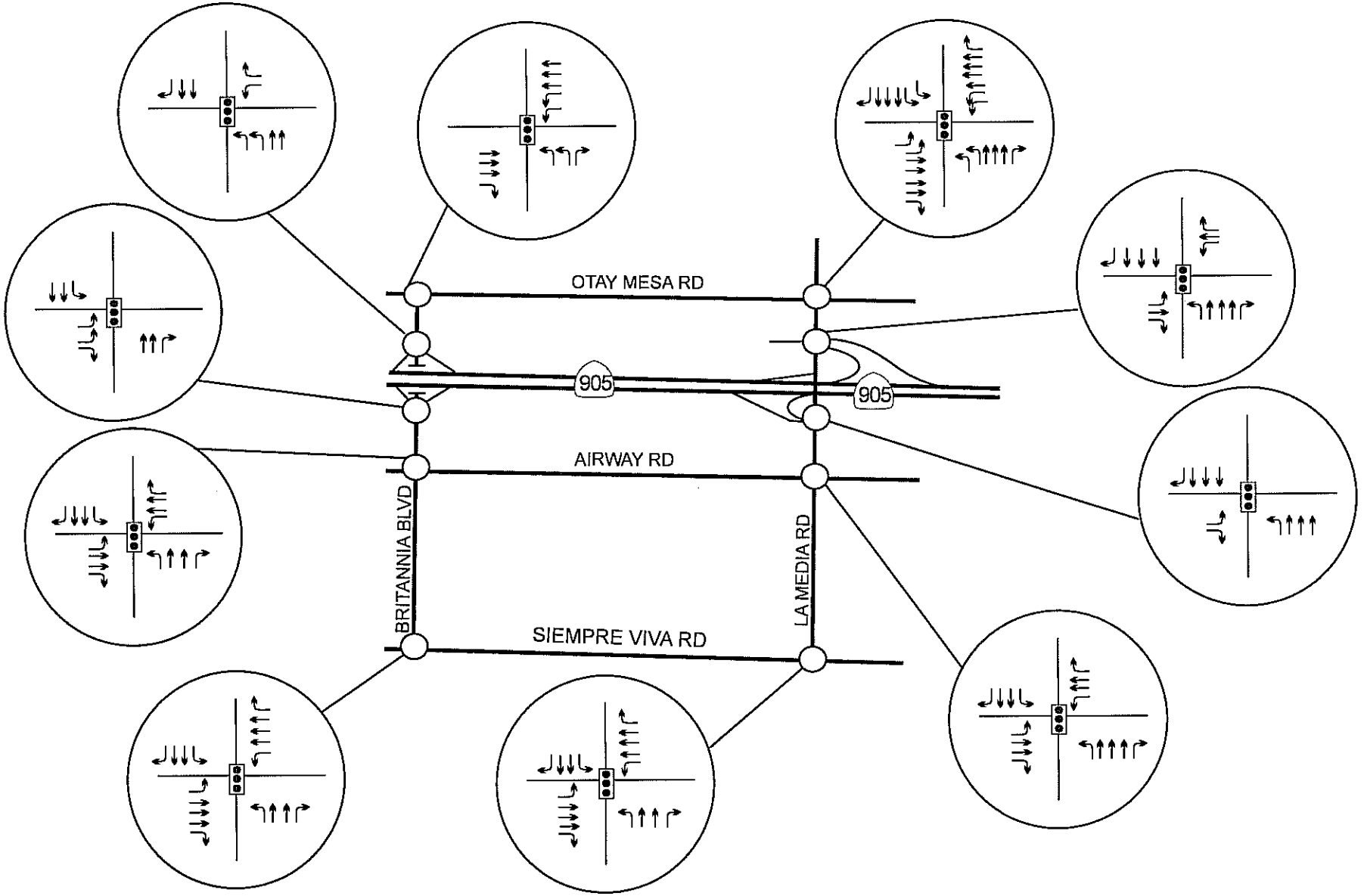


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-41b

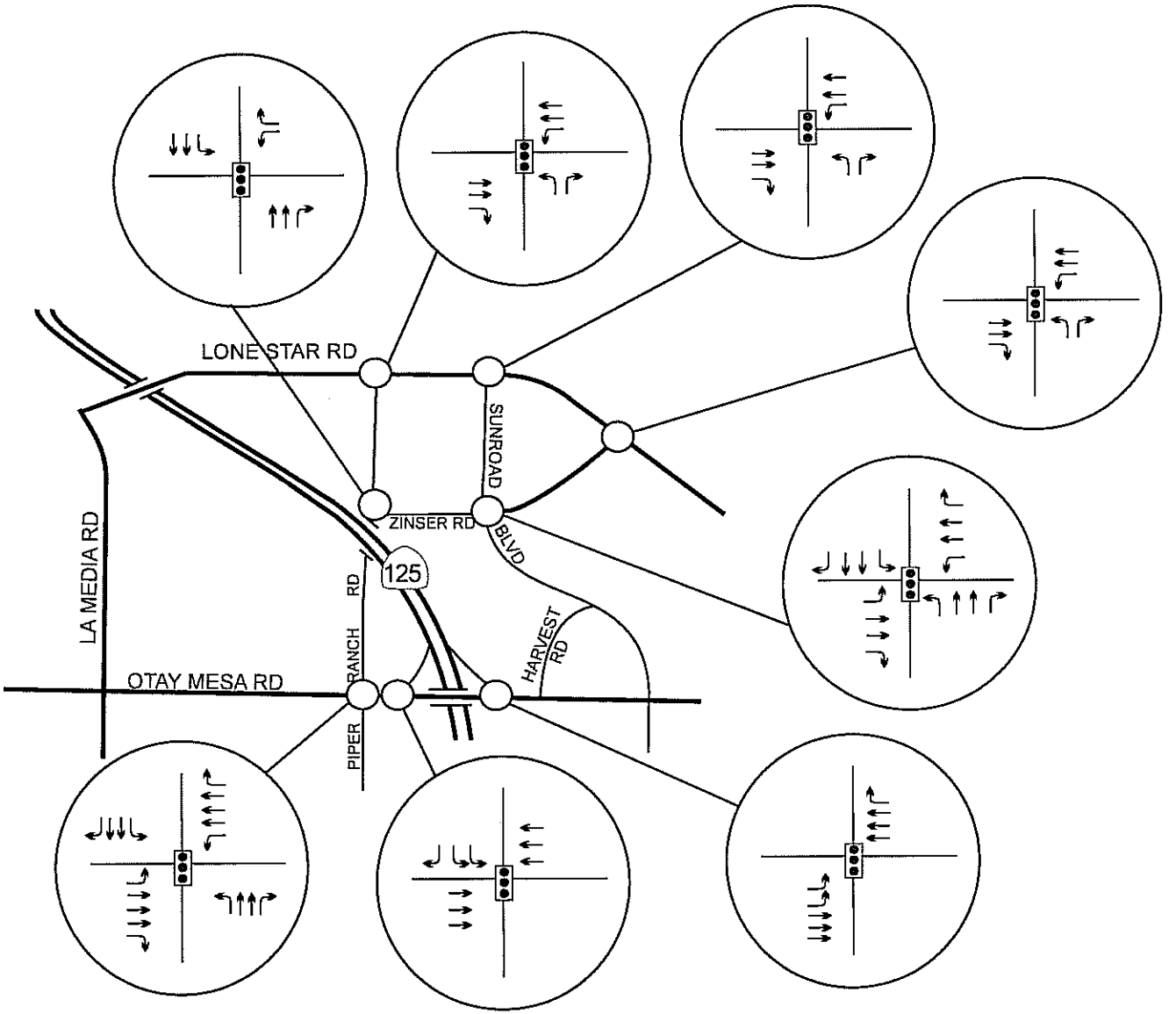


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-42a

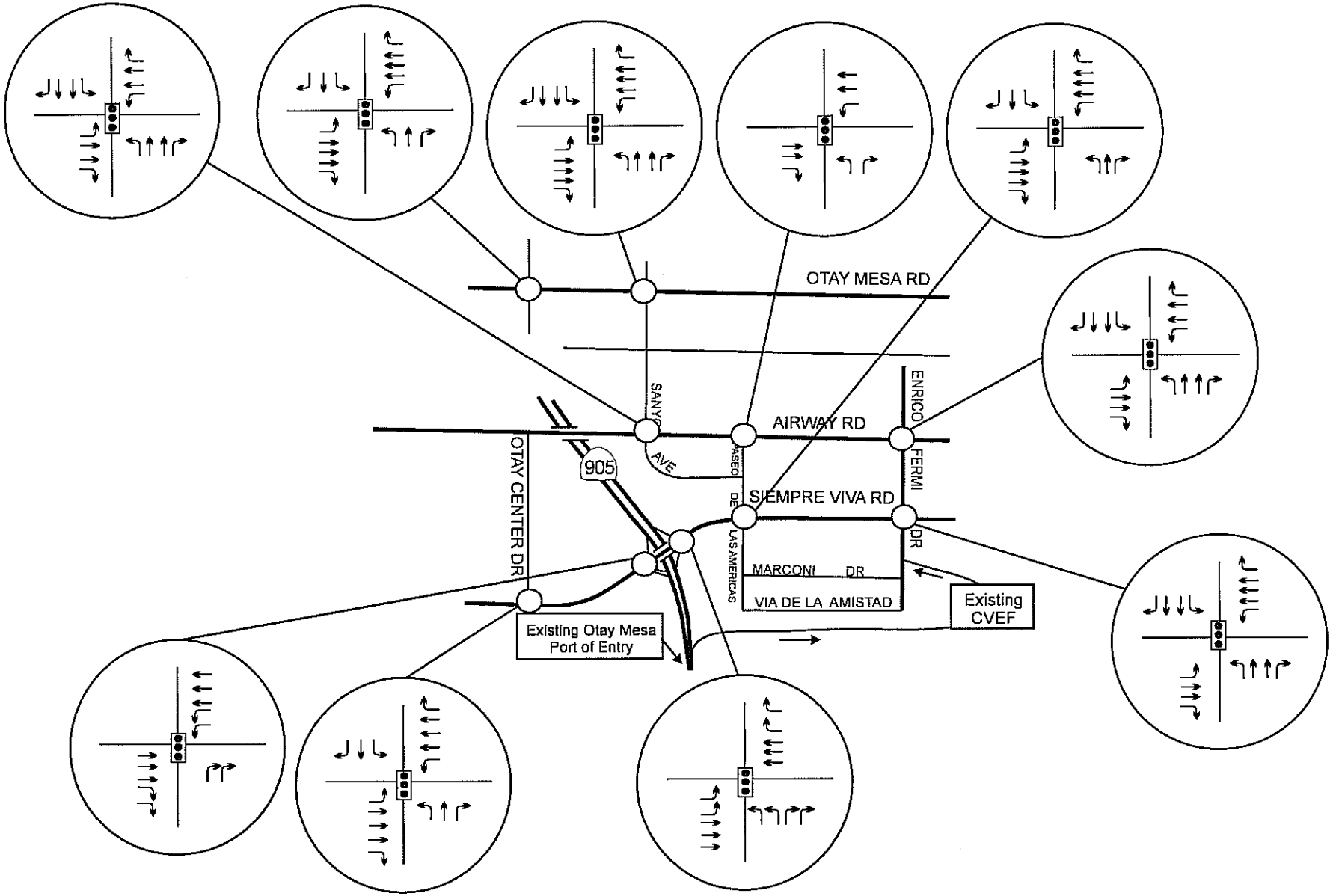


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-42b

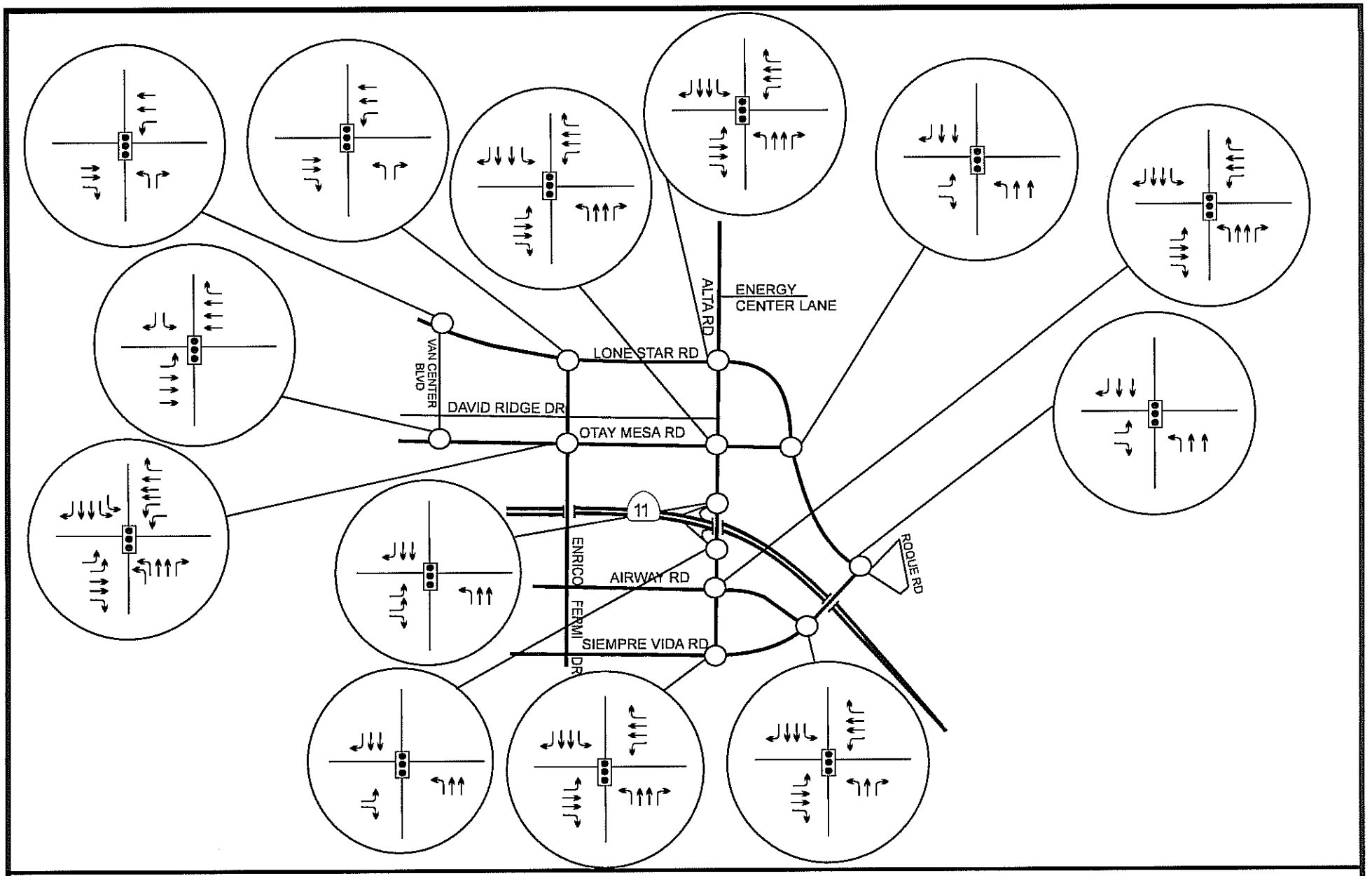


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-42c

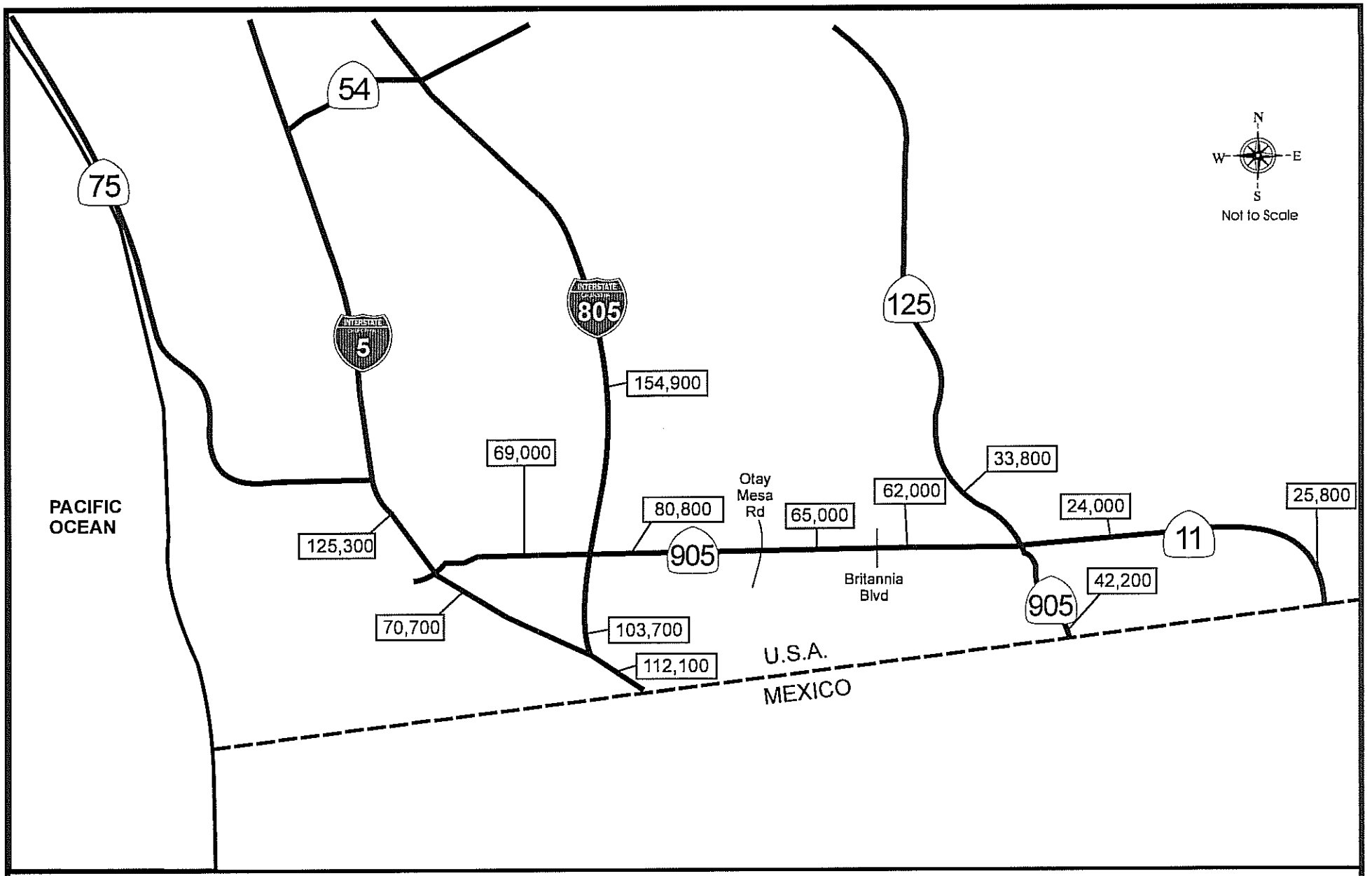


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-42d



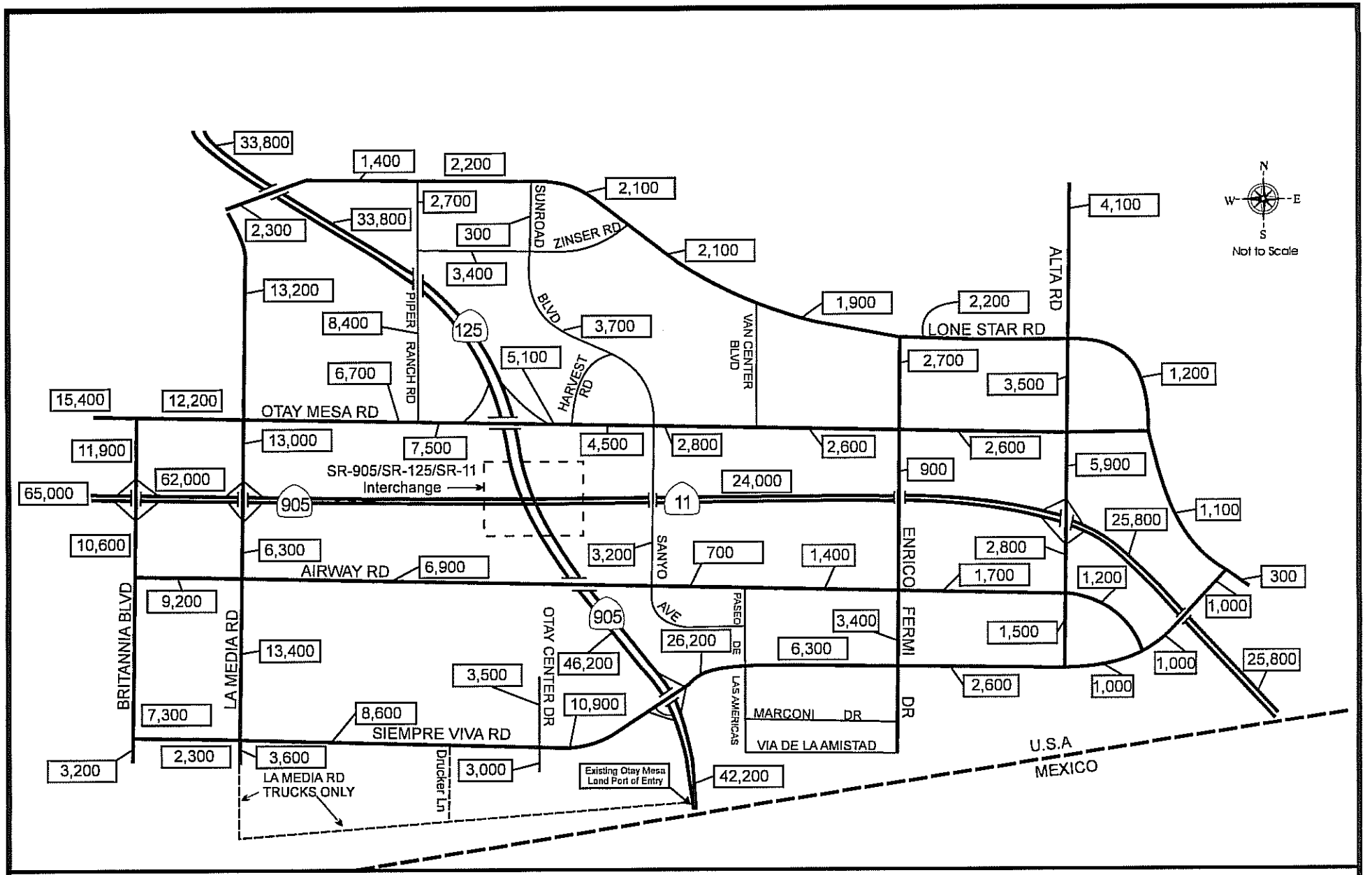
Opening Year (2015) Average Daily Traffic - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-43a



Opening Year (2015) Average Daily Traffic - SR-125 Connector/One Interchange Design Variation

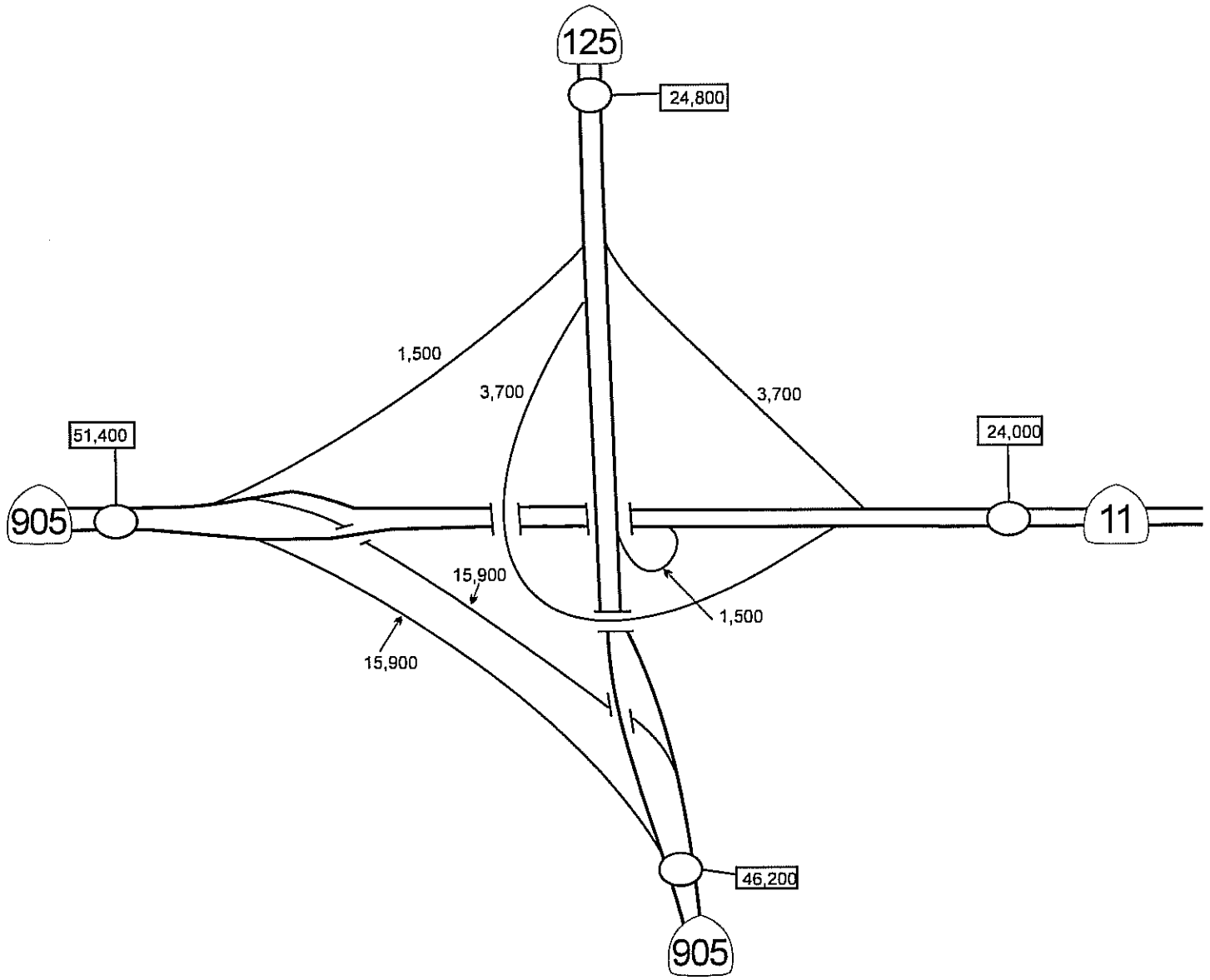
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-43b

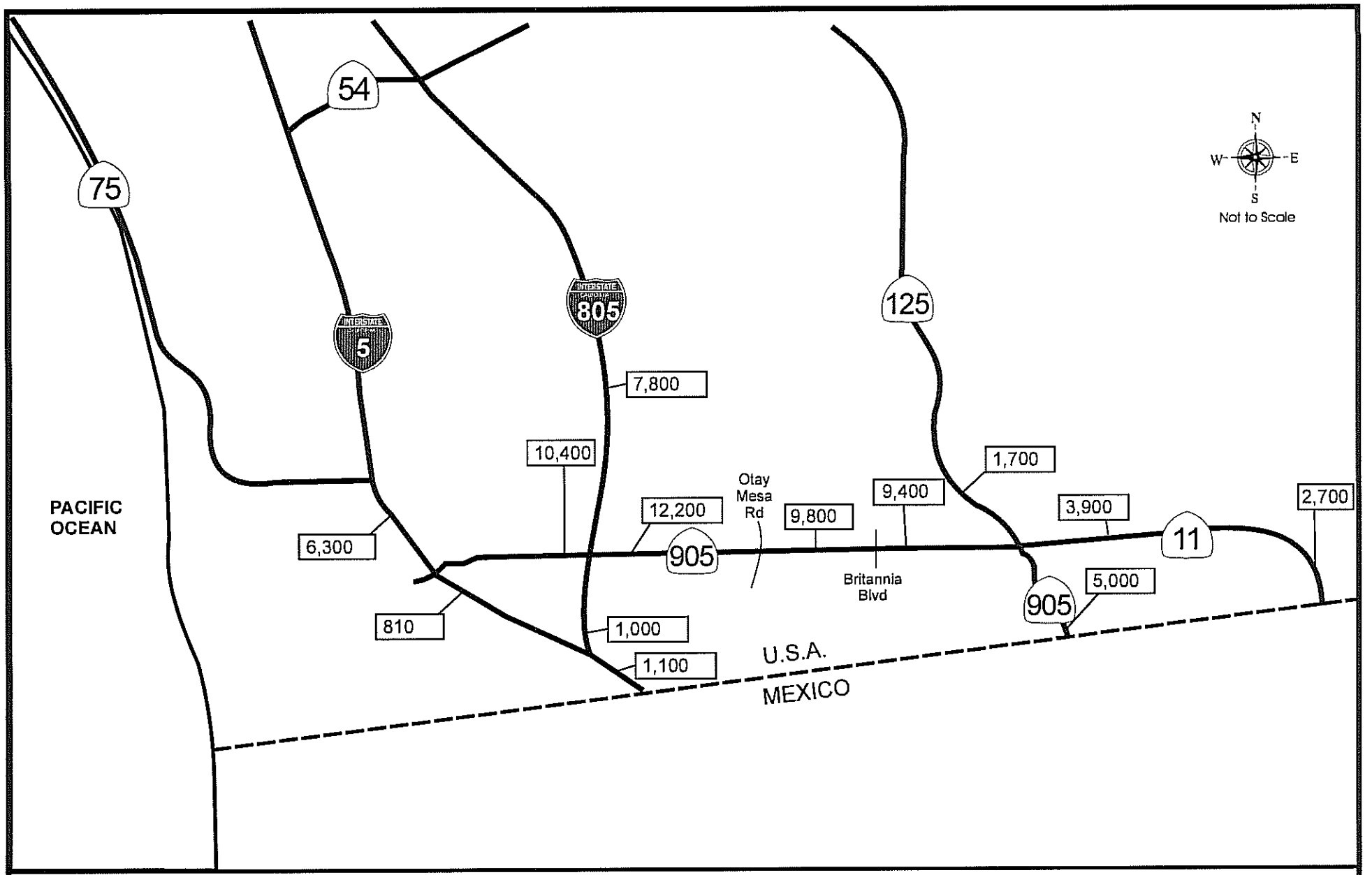


Opening Year (2015) Average Daily Traffic - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 4-43c



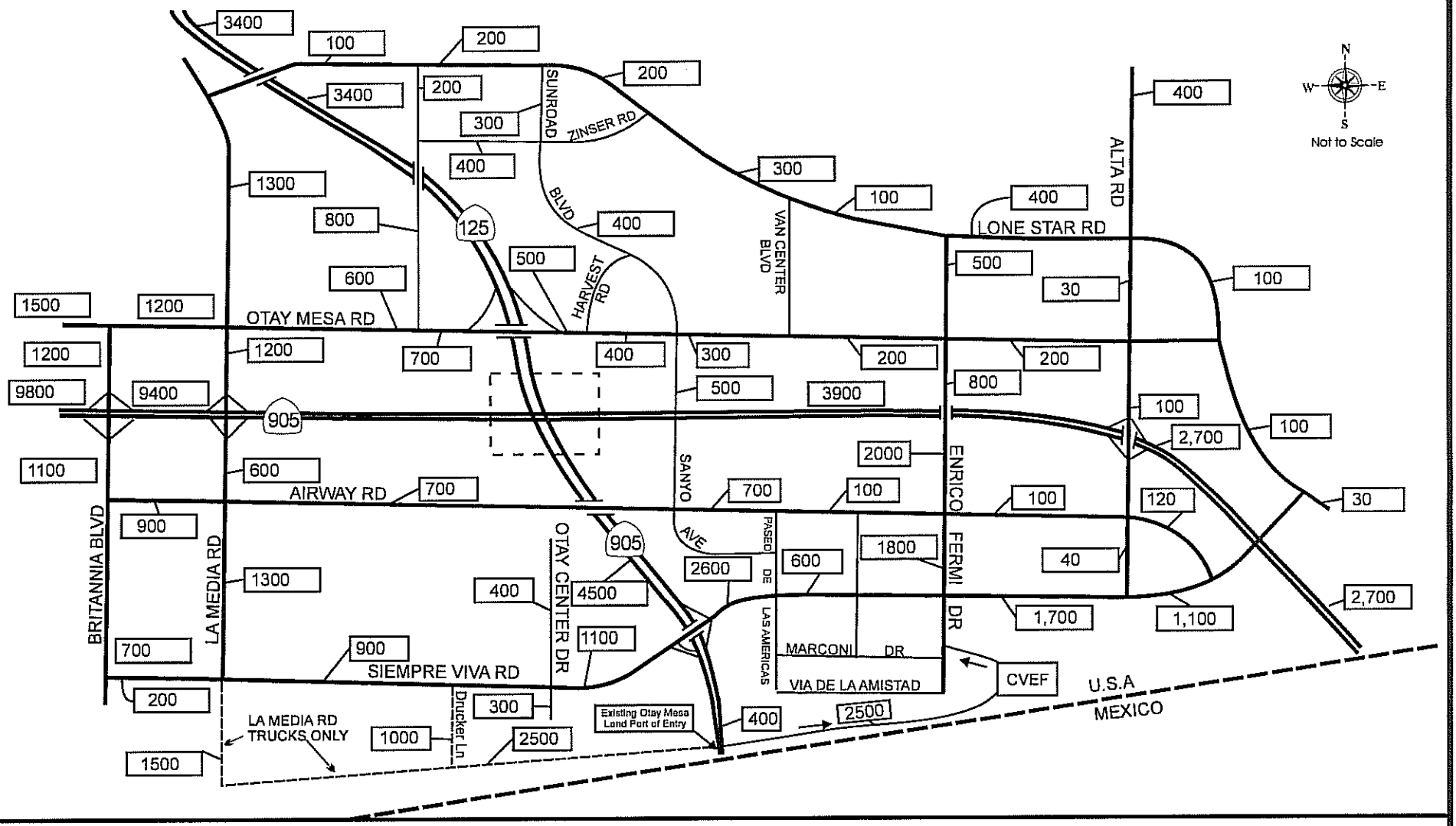
Opening Year (2015) Daily Truck Trips - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-44a



Opening Year (2015) Daily Truck Trips - SR-125 Connector/One Interchange Design Variation

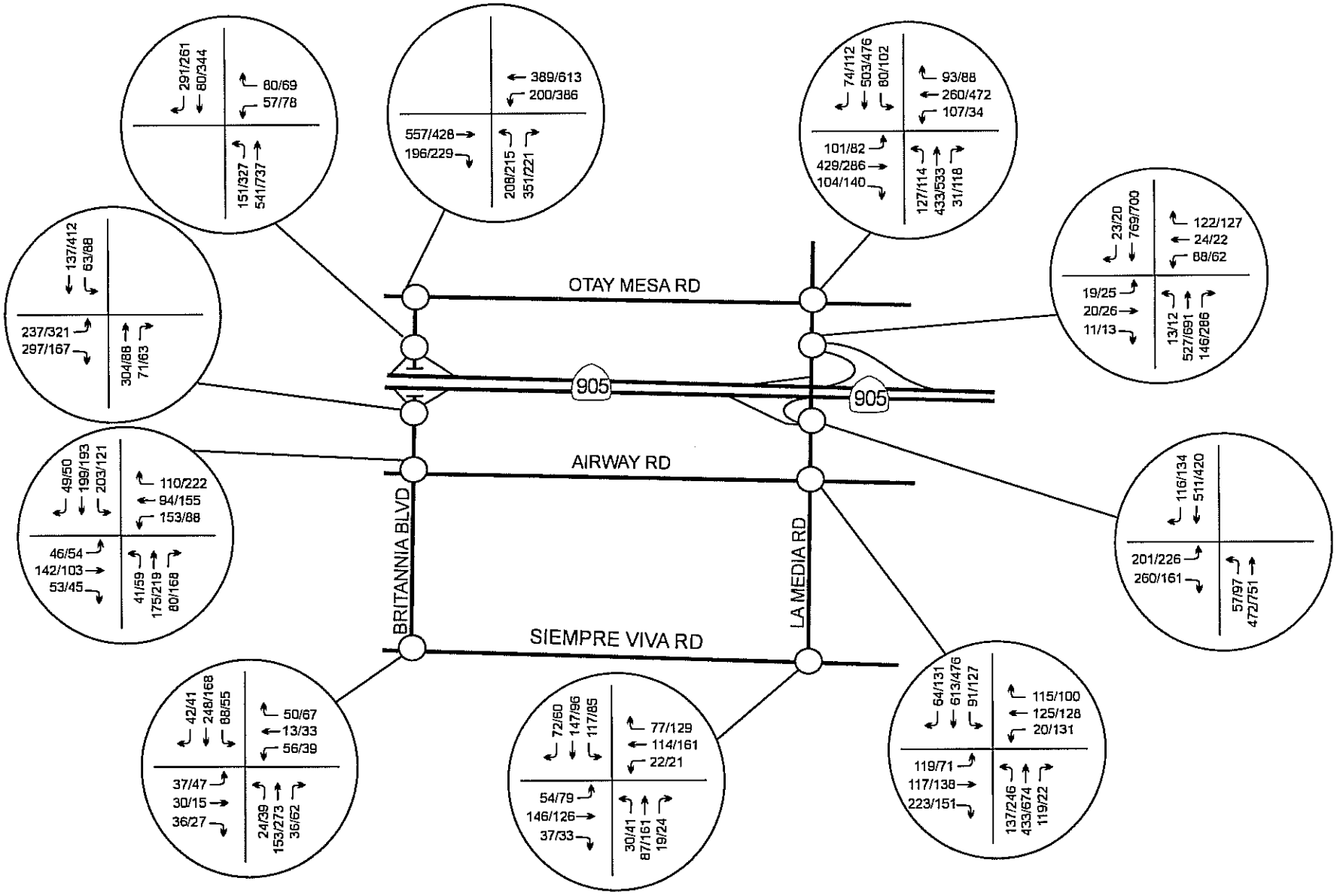
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-44b

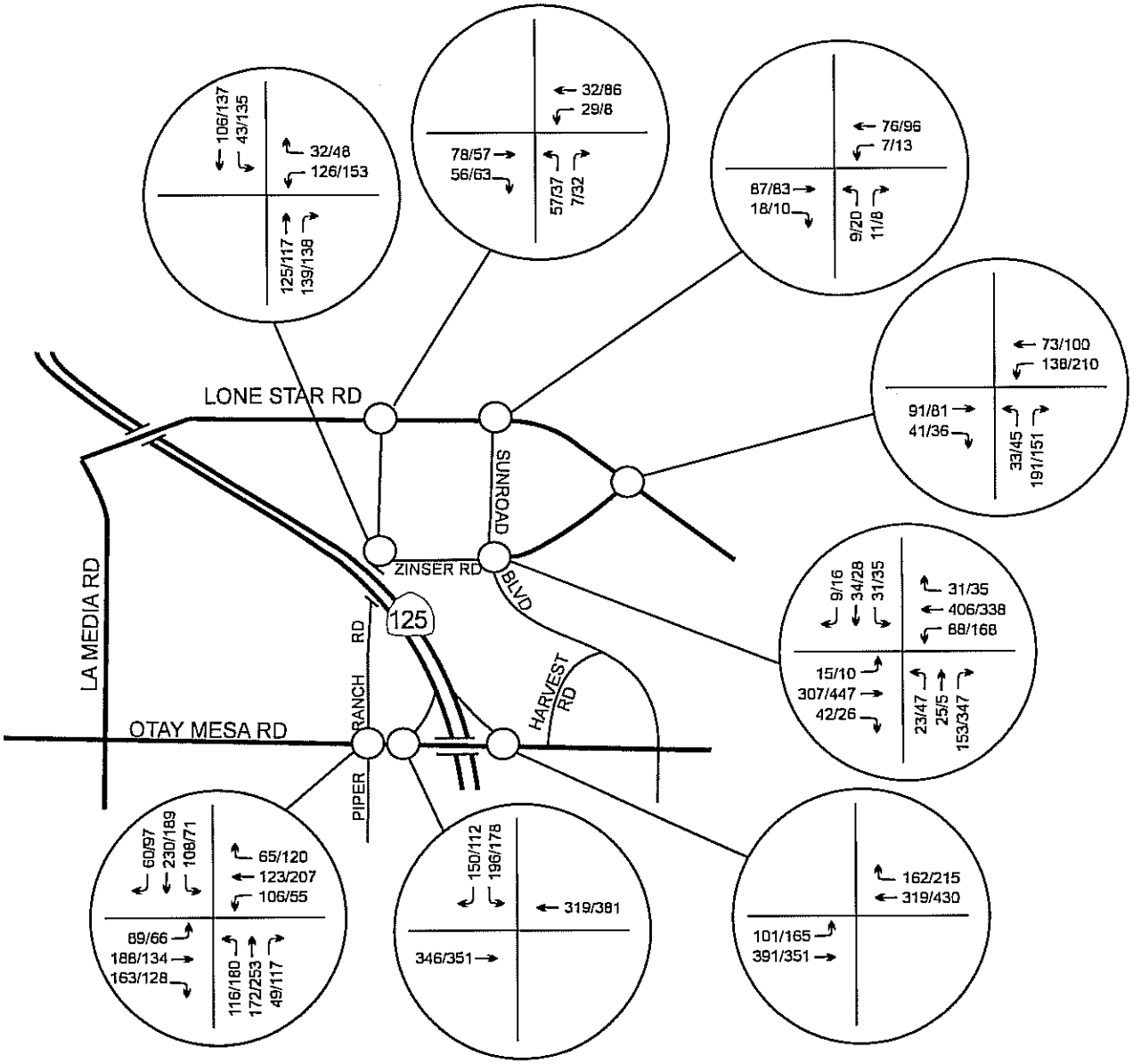


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-45a

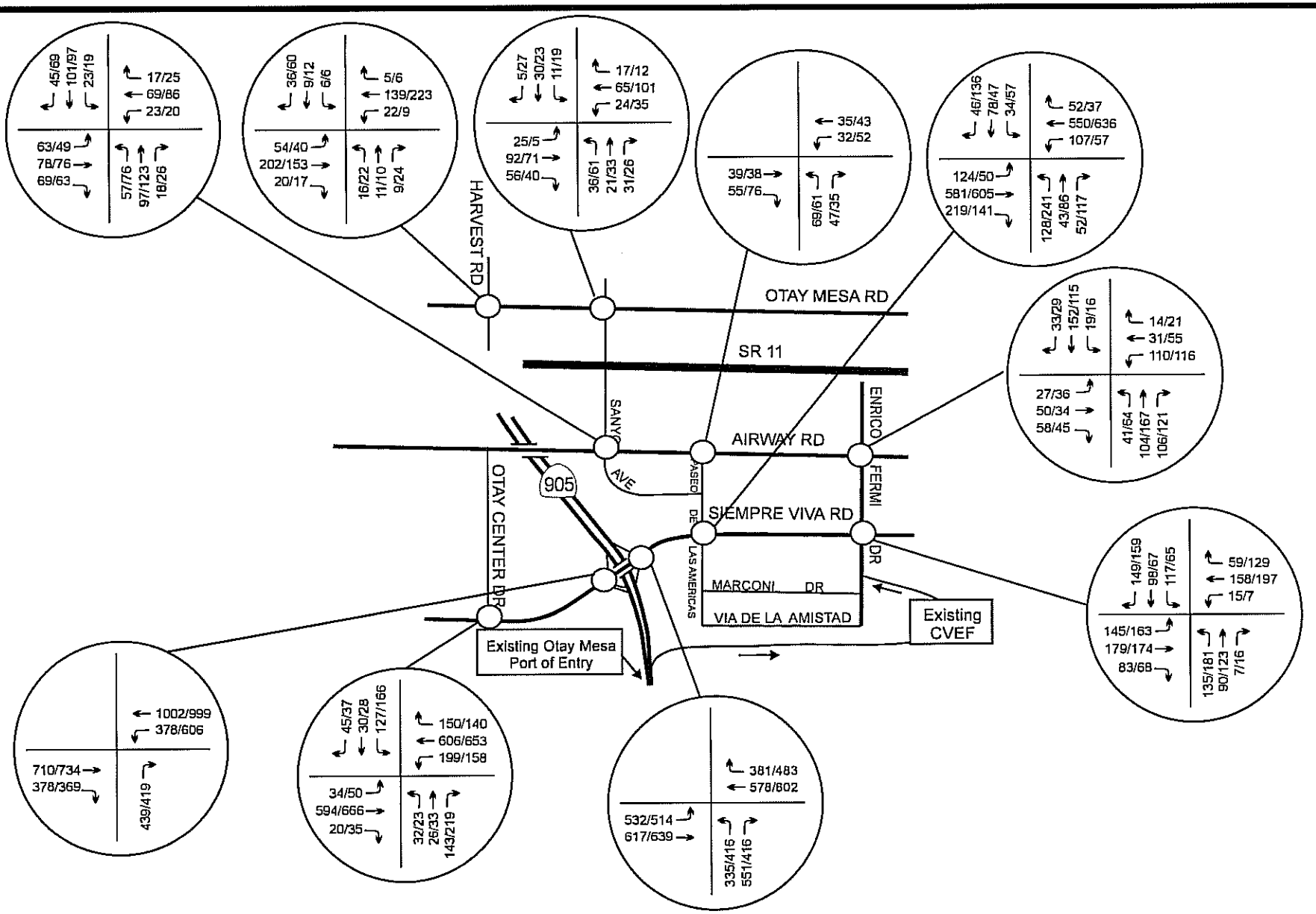


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-45b

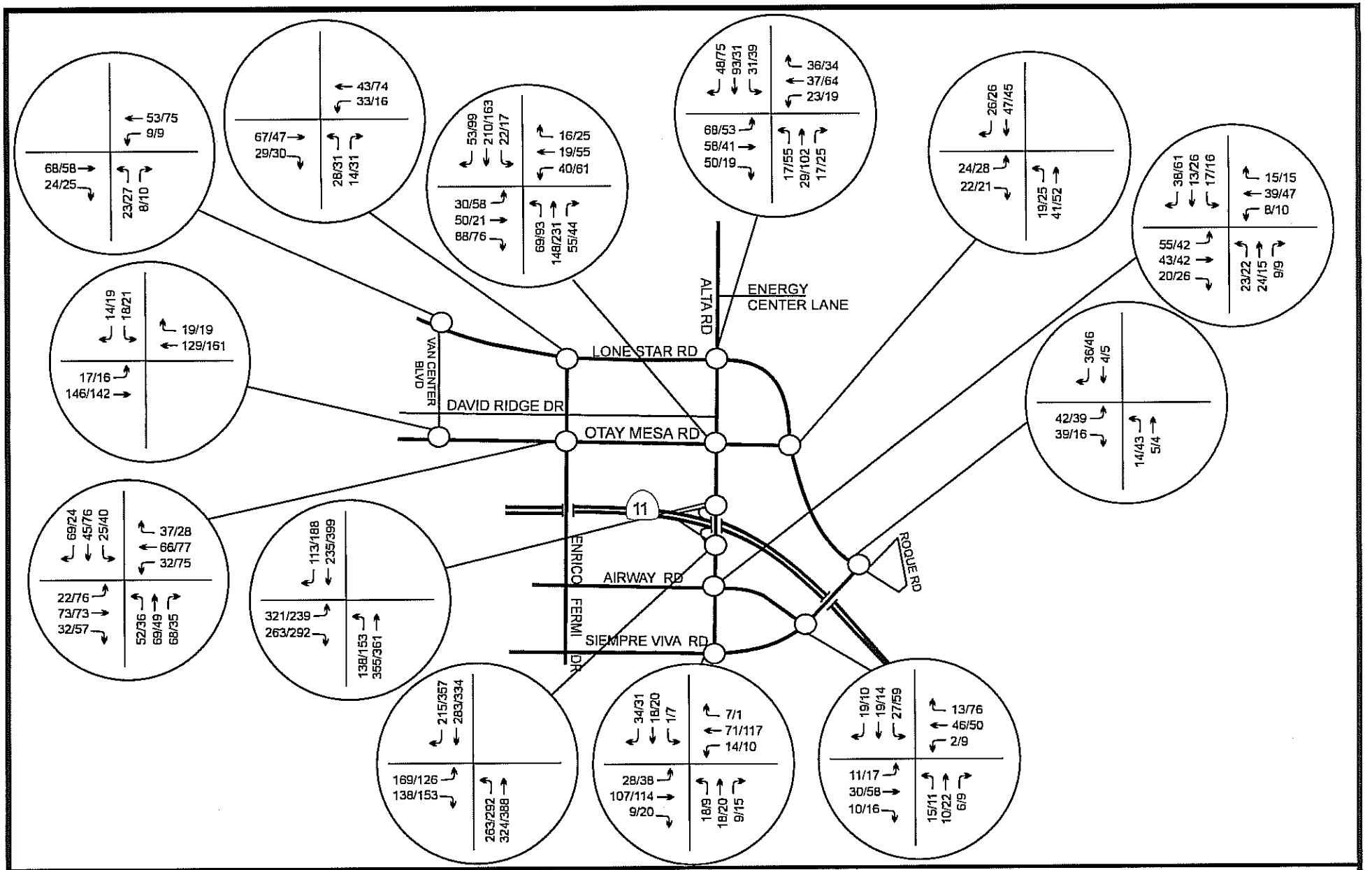


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-45c

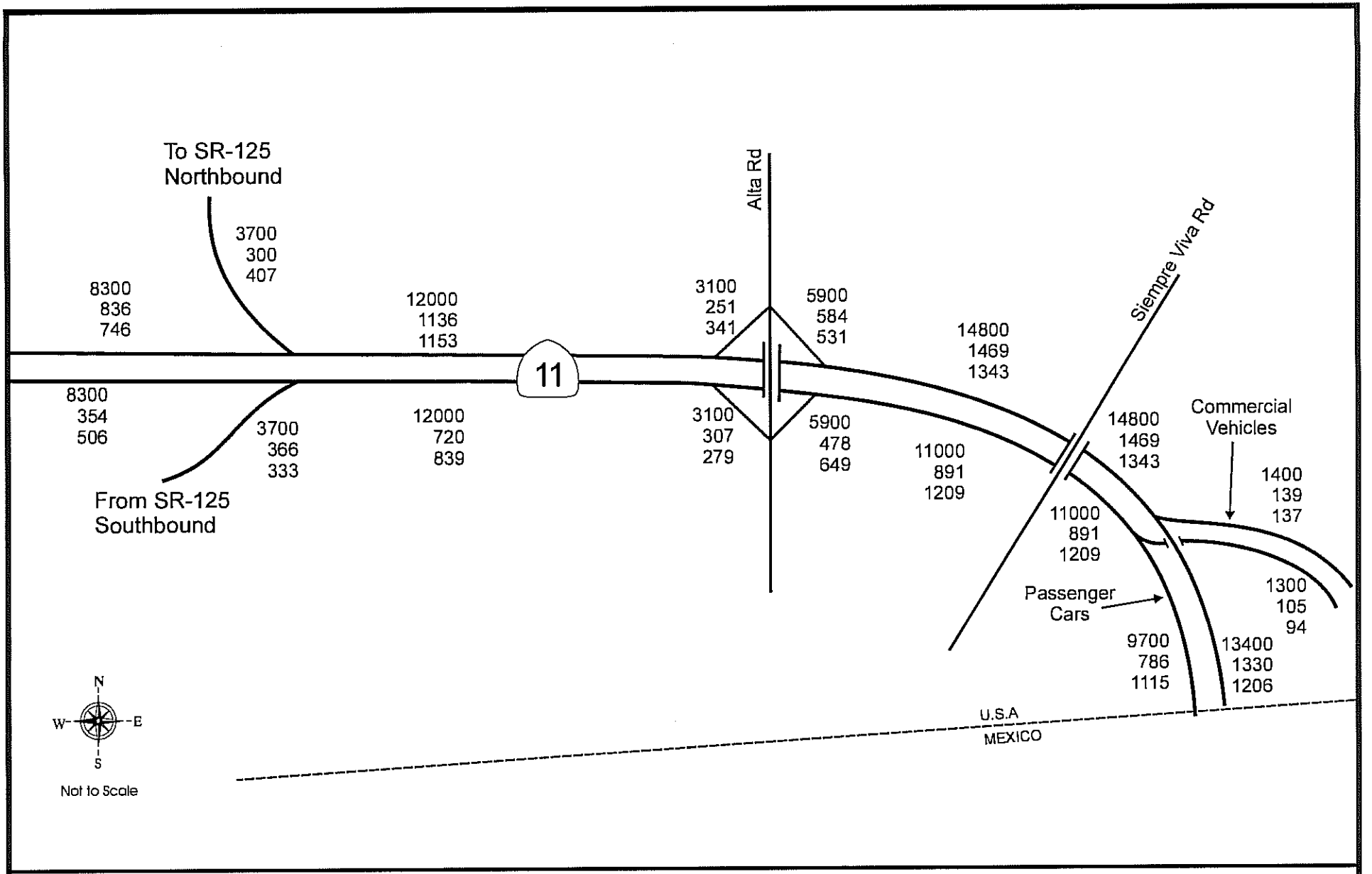


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-45d

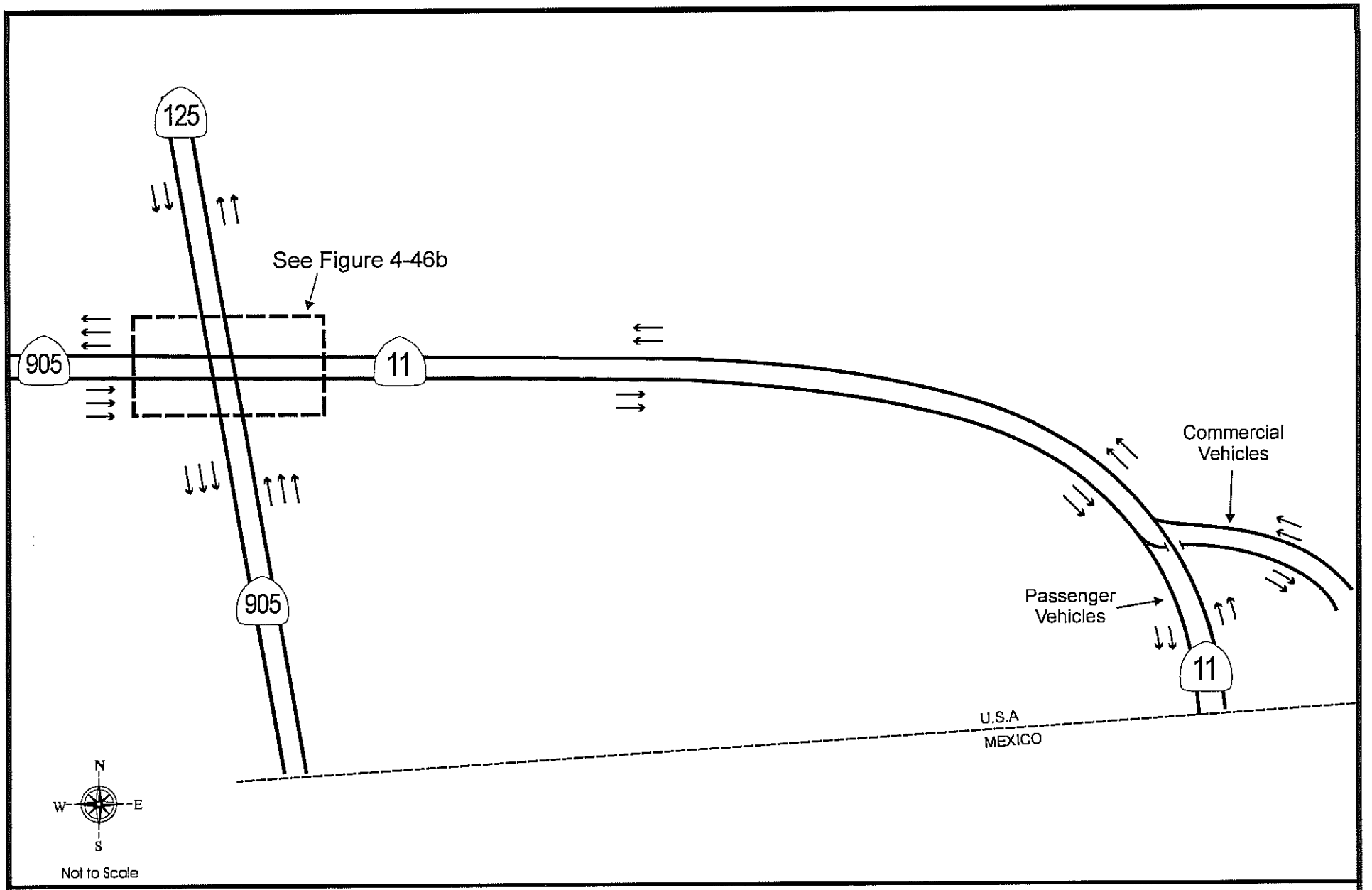


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-125 Connector/One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-45e

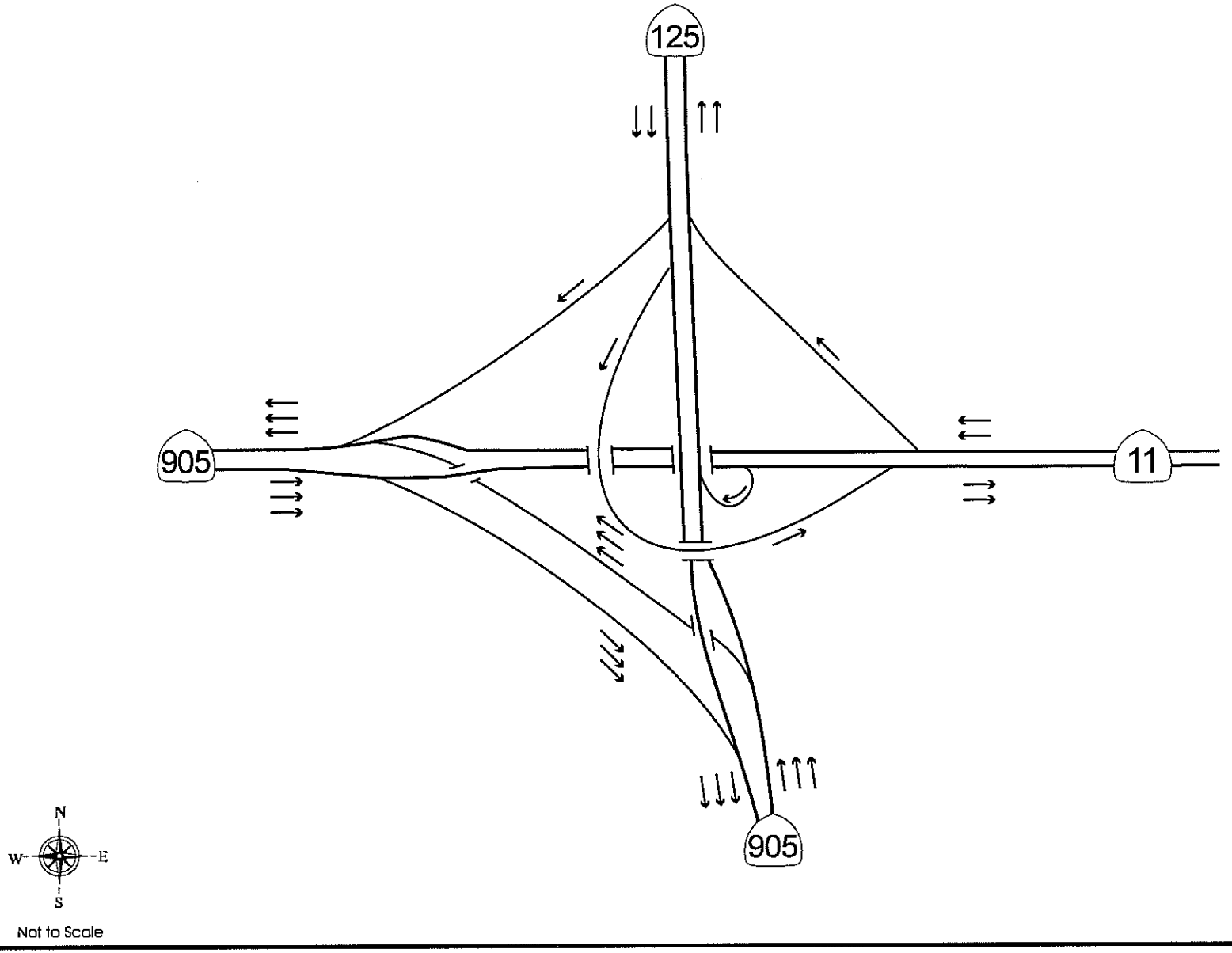


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/No Interchange Design Variation

Legend

← Number of Lanes

Figure 4-46a

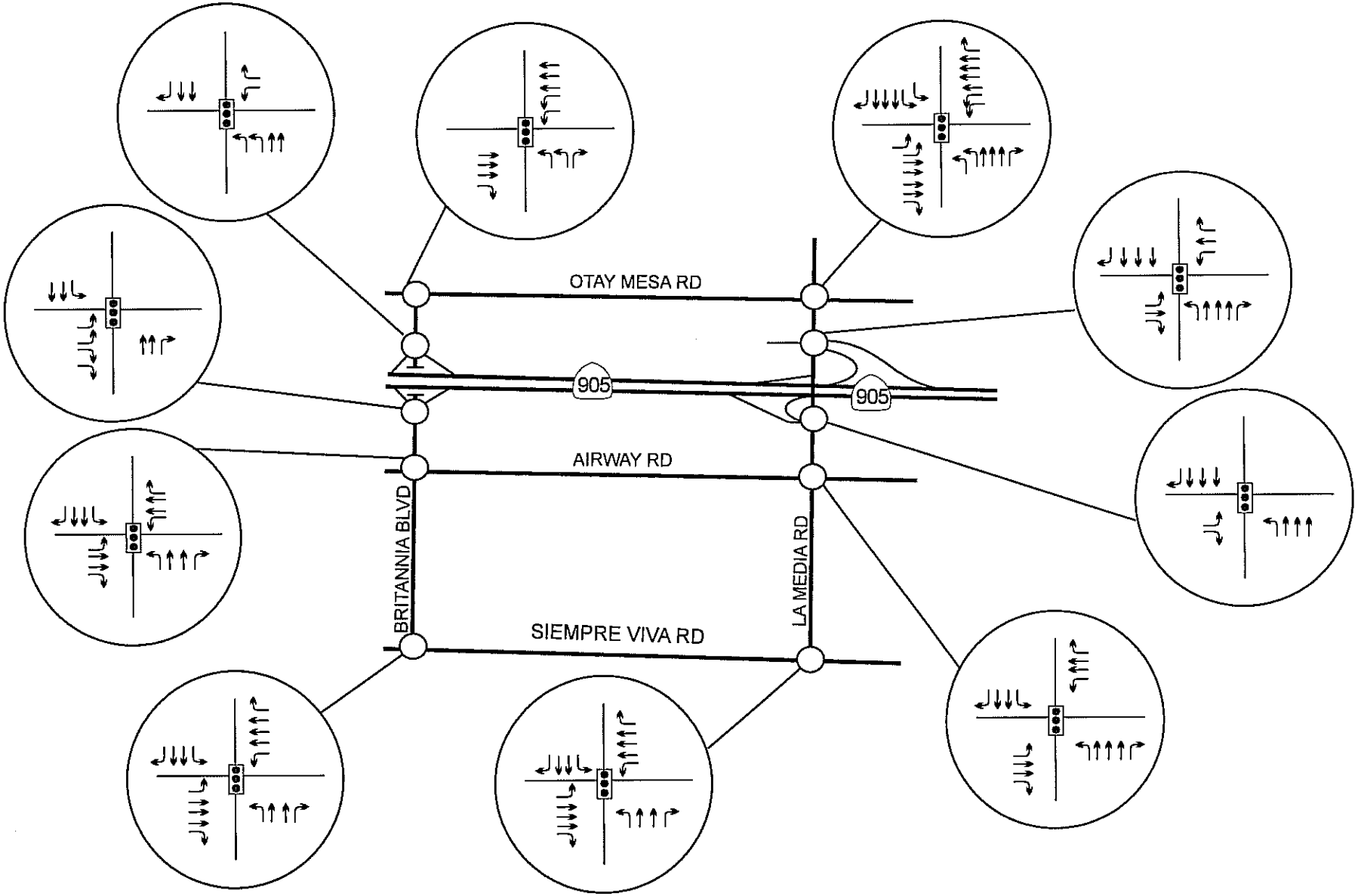


Opening Year (2015) SR-11 Lane Geometry
SR-125 Connector/No Interchange Design Variation

Legend

← Number of Lanes

Figure 4-46b

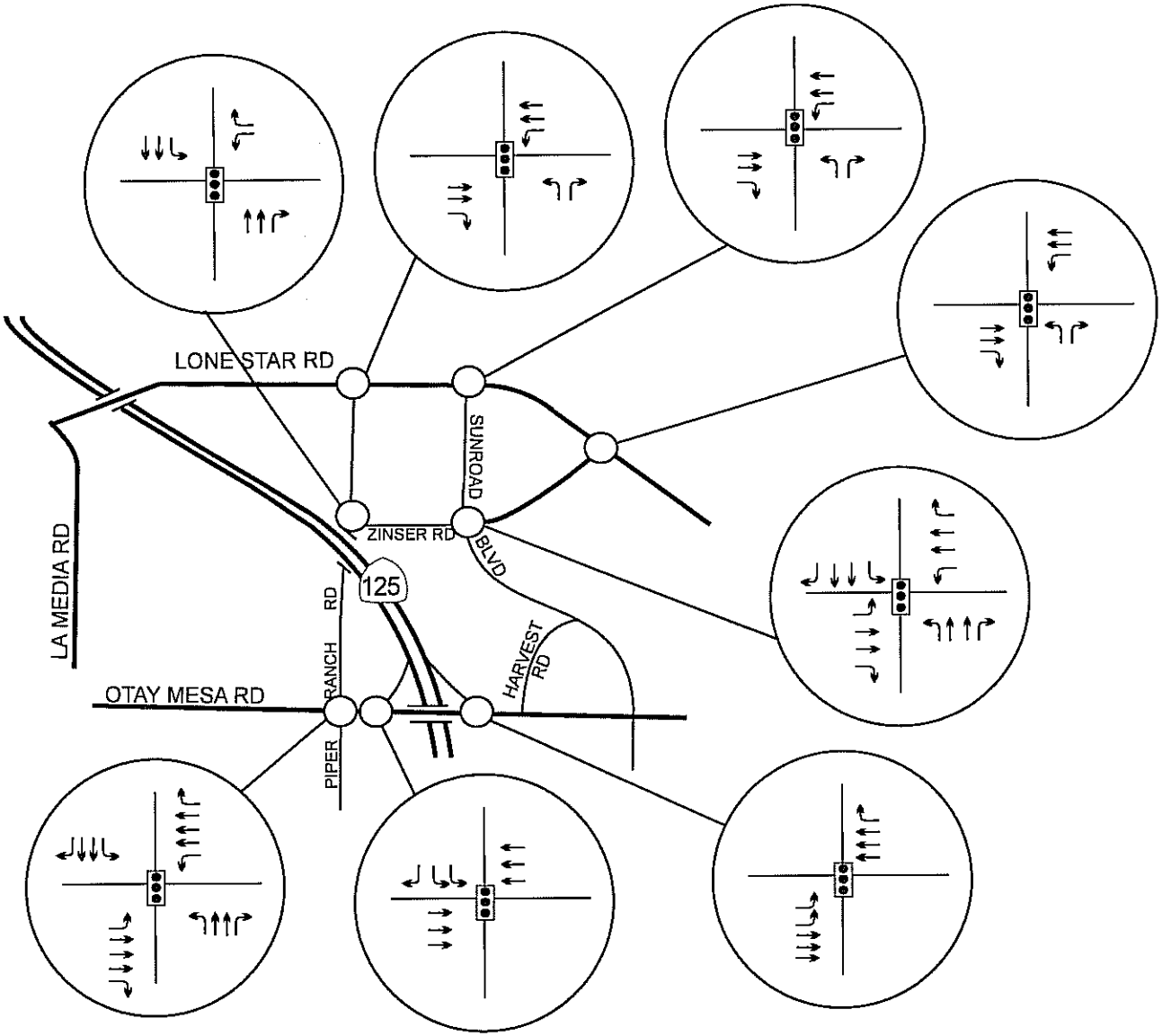


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-47a

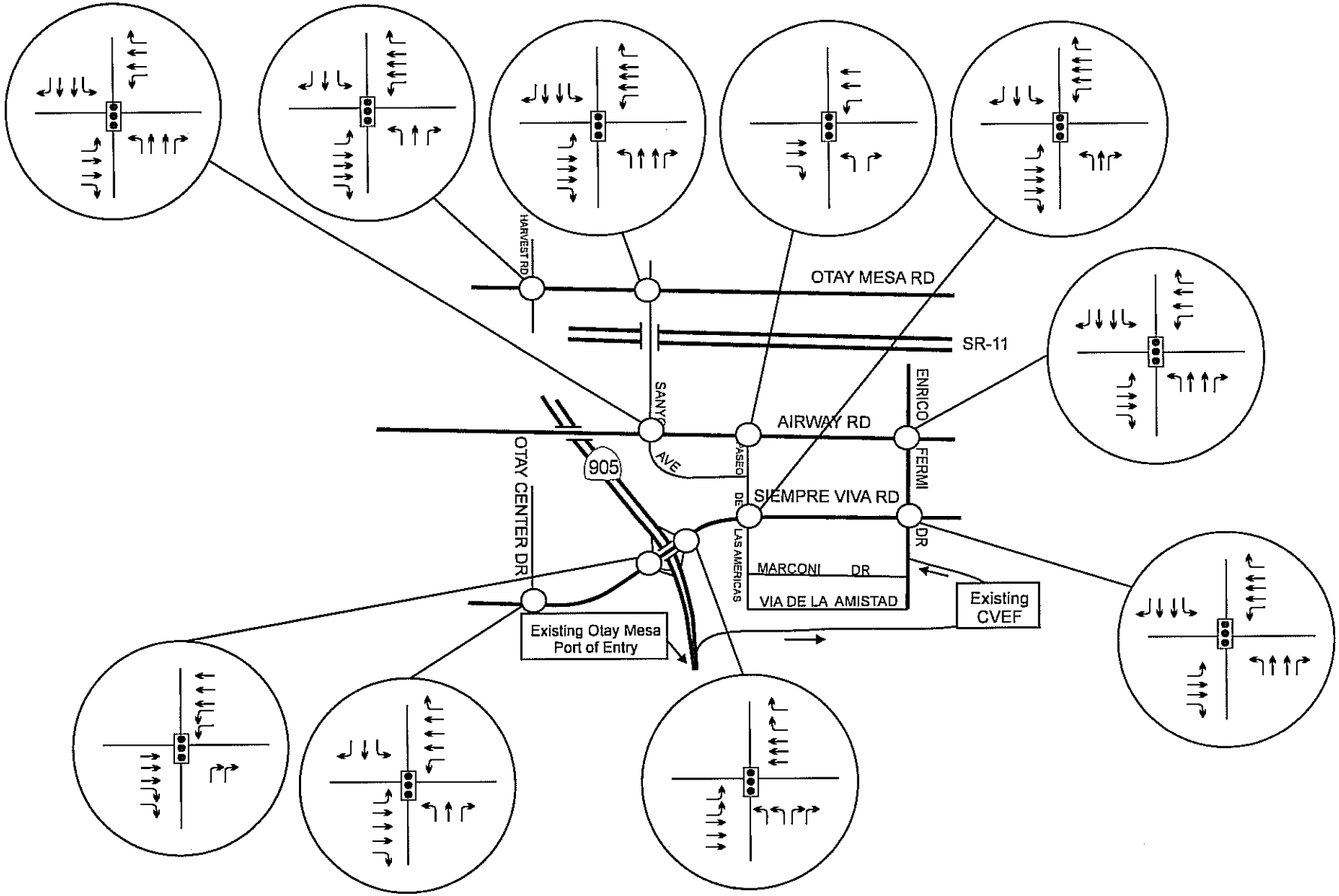


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-47b

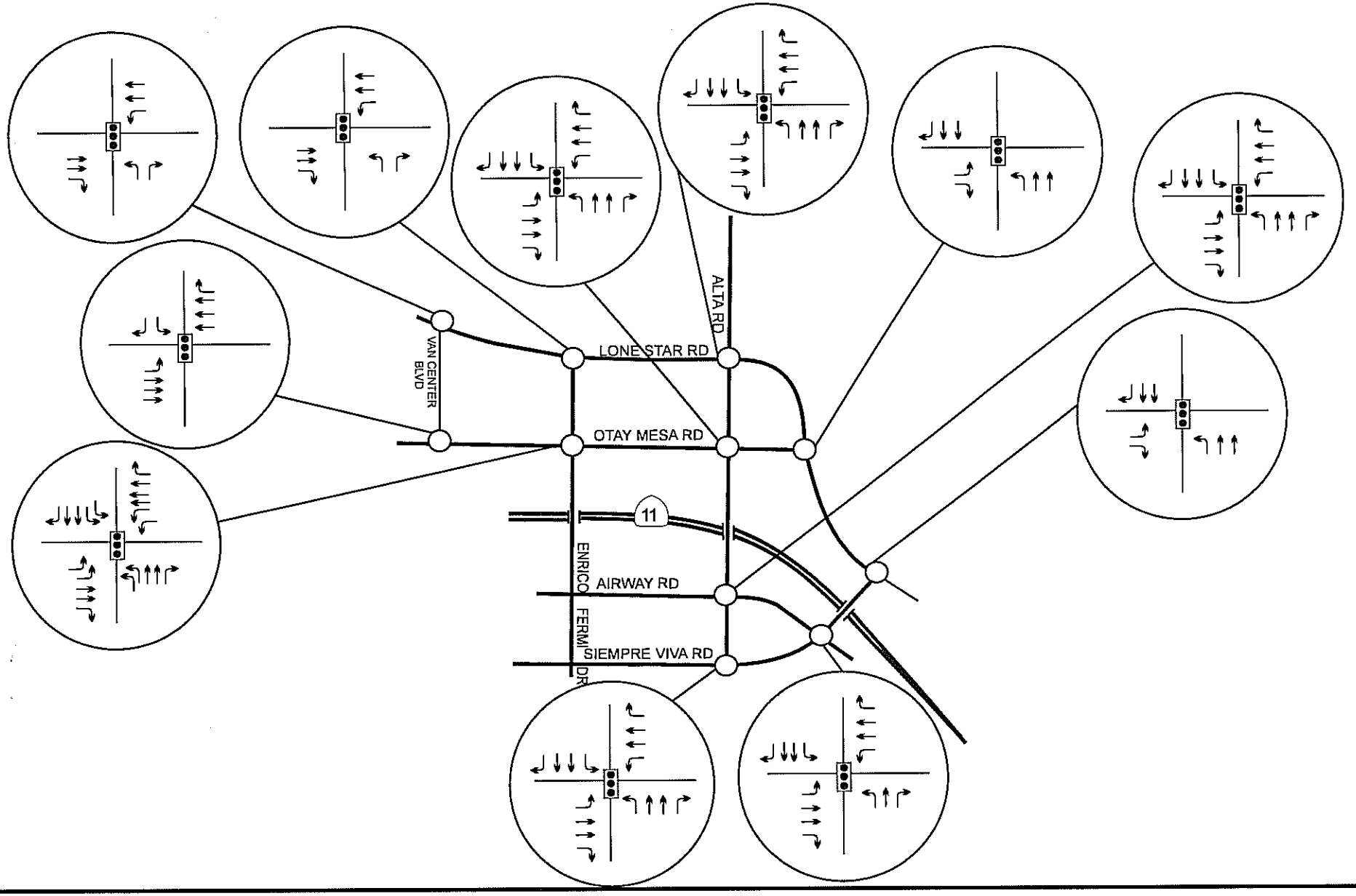


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-47c

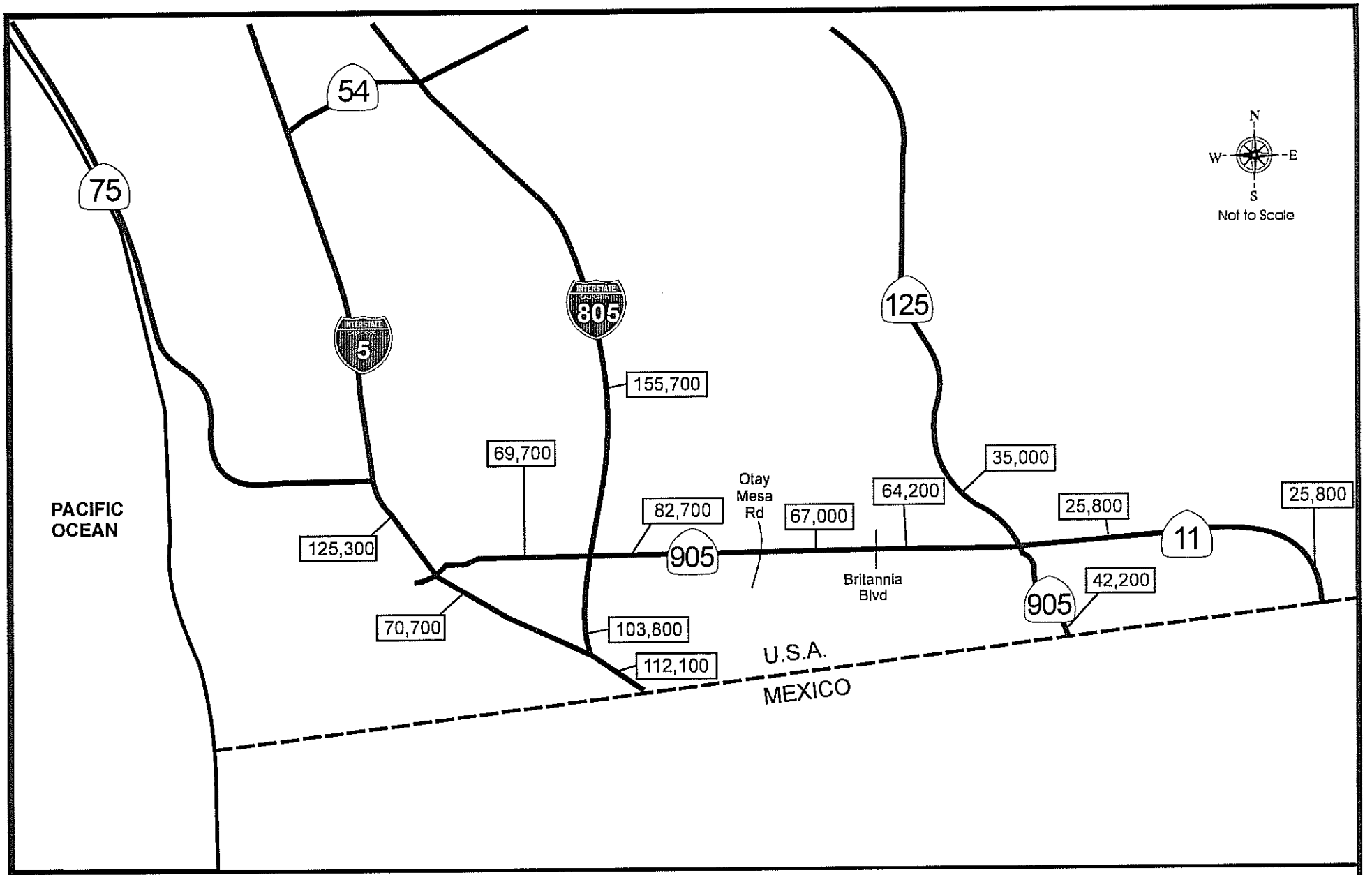


Opening Year (2015) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-47d



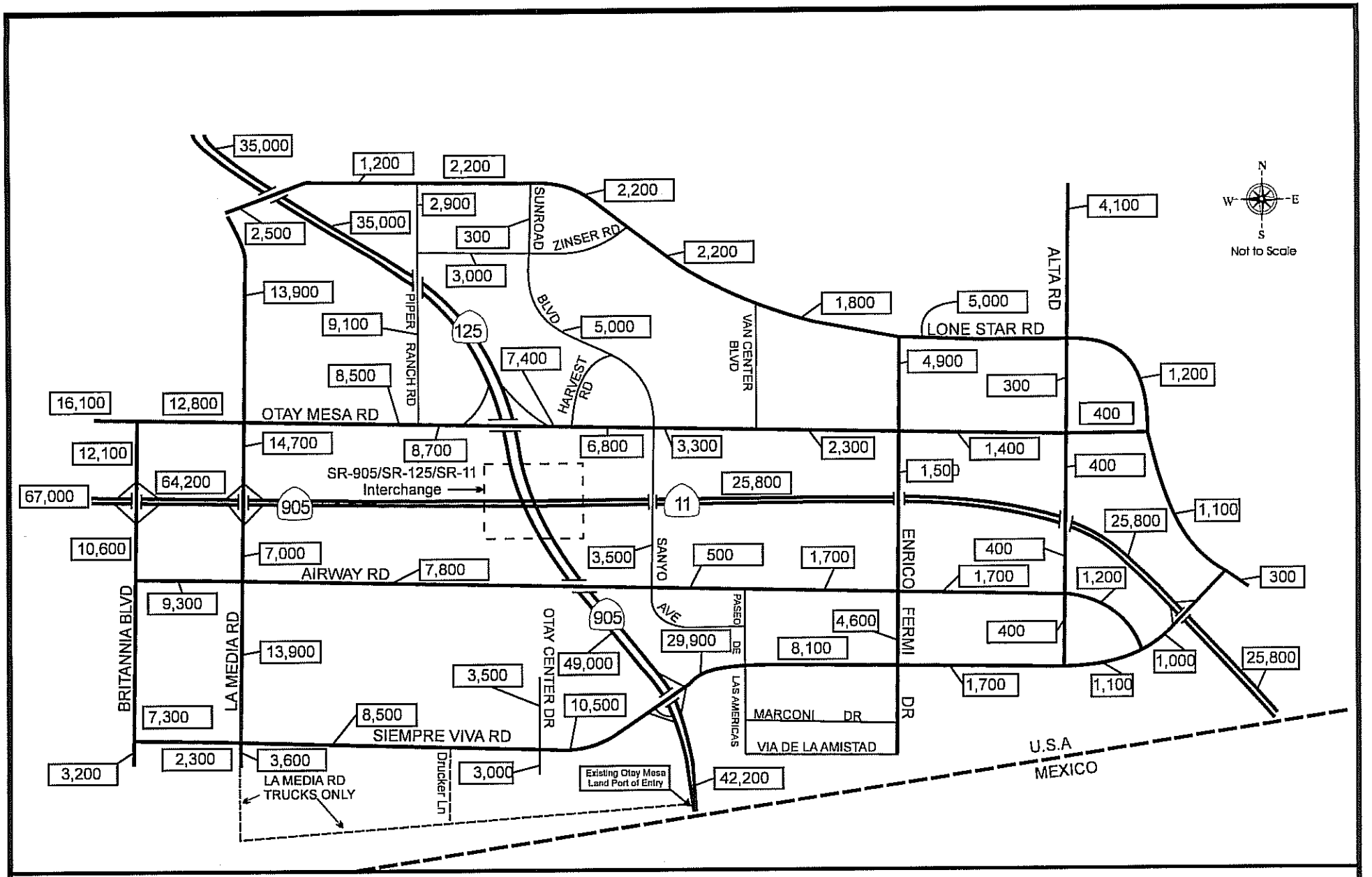
Opening Year (2015) Average Daily Traffic - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-48a



Opening Year (2015) Average Daily Traffic - SR-125 Connector/No Interchange Design Variation

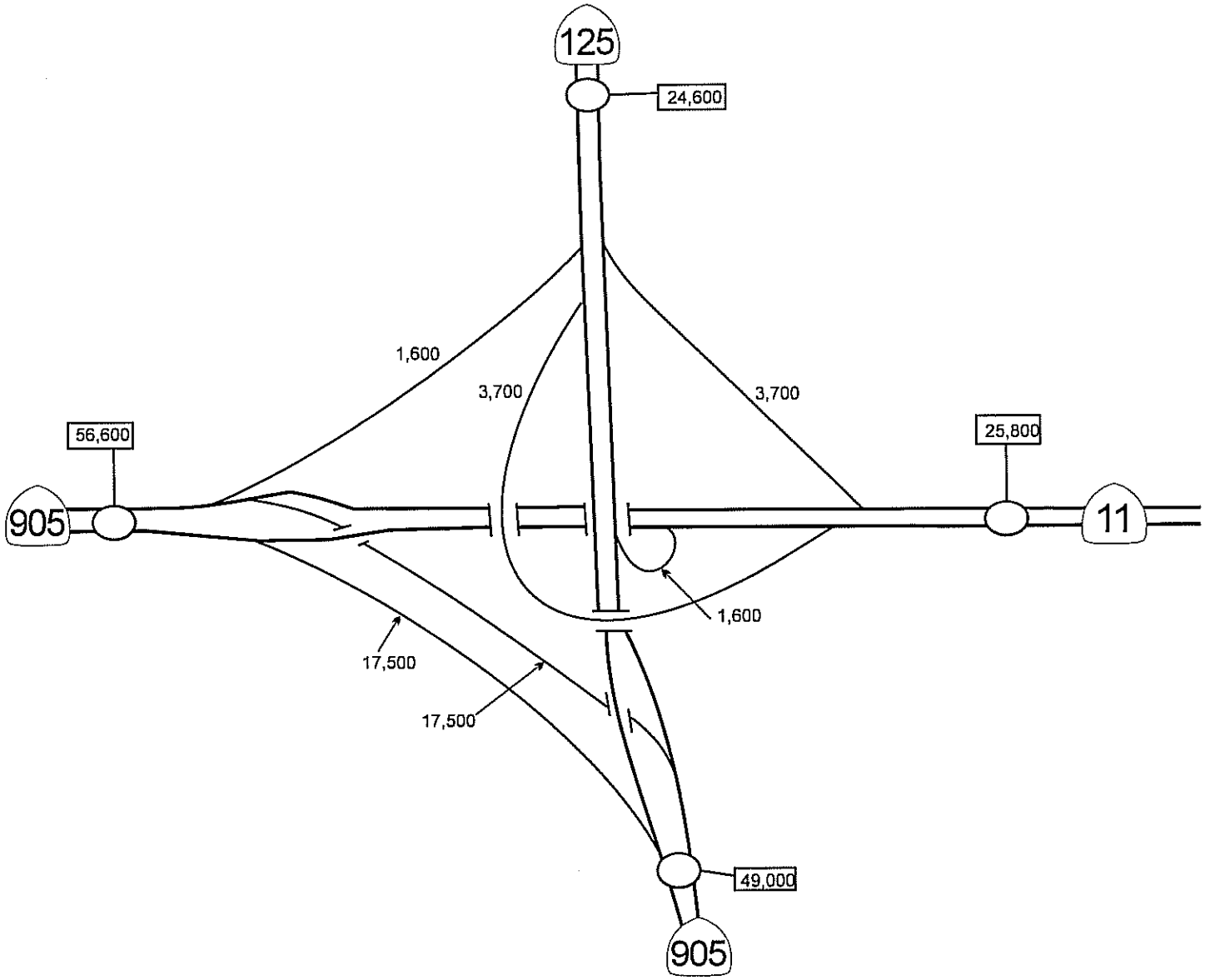
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-48b

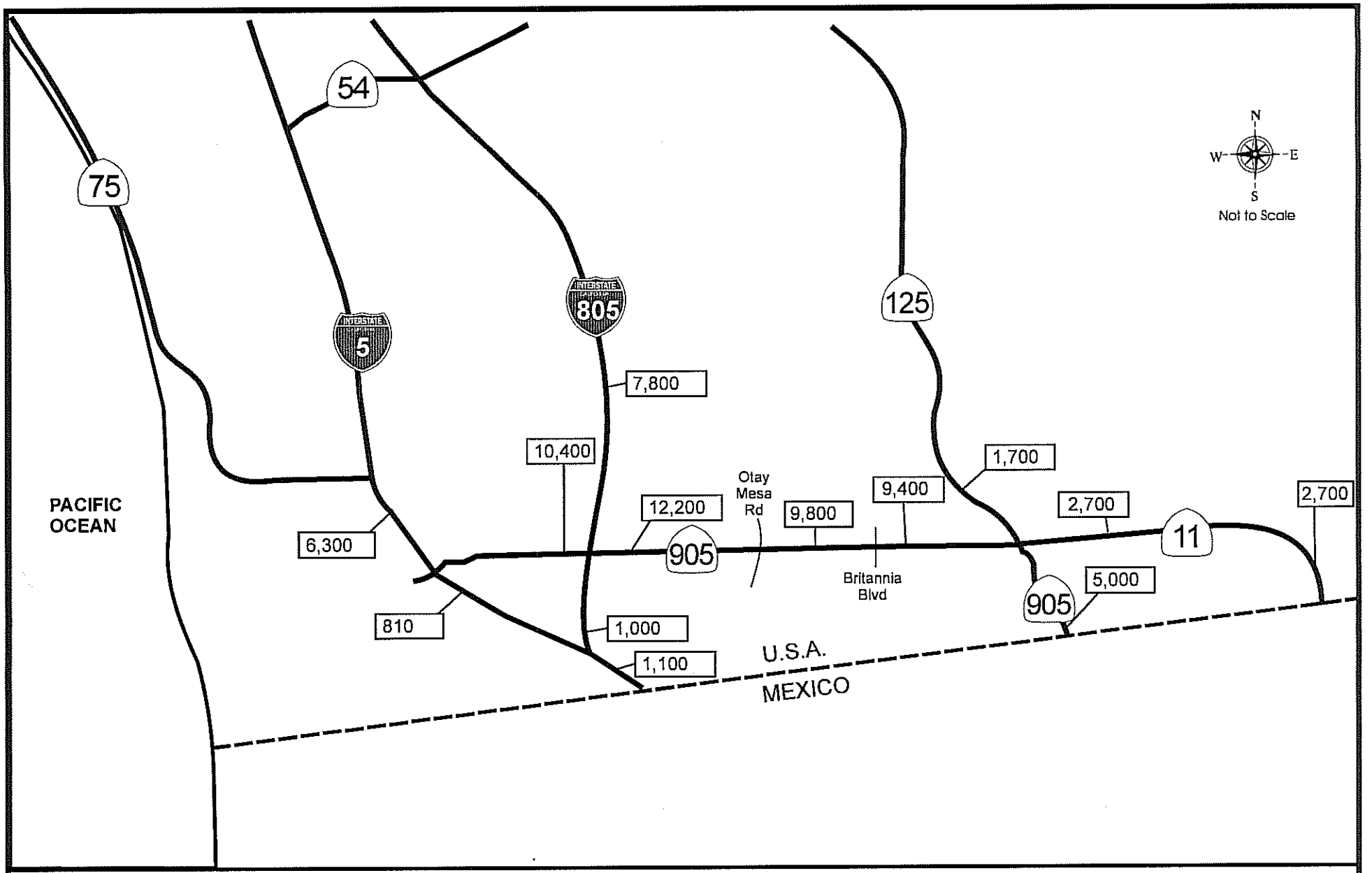


Opening Year (2015) Average Daily Traffic -
SR-125 Connector/No Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-48c



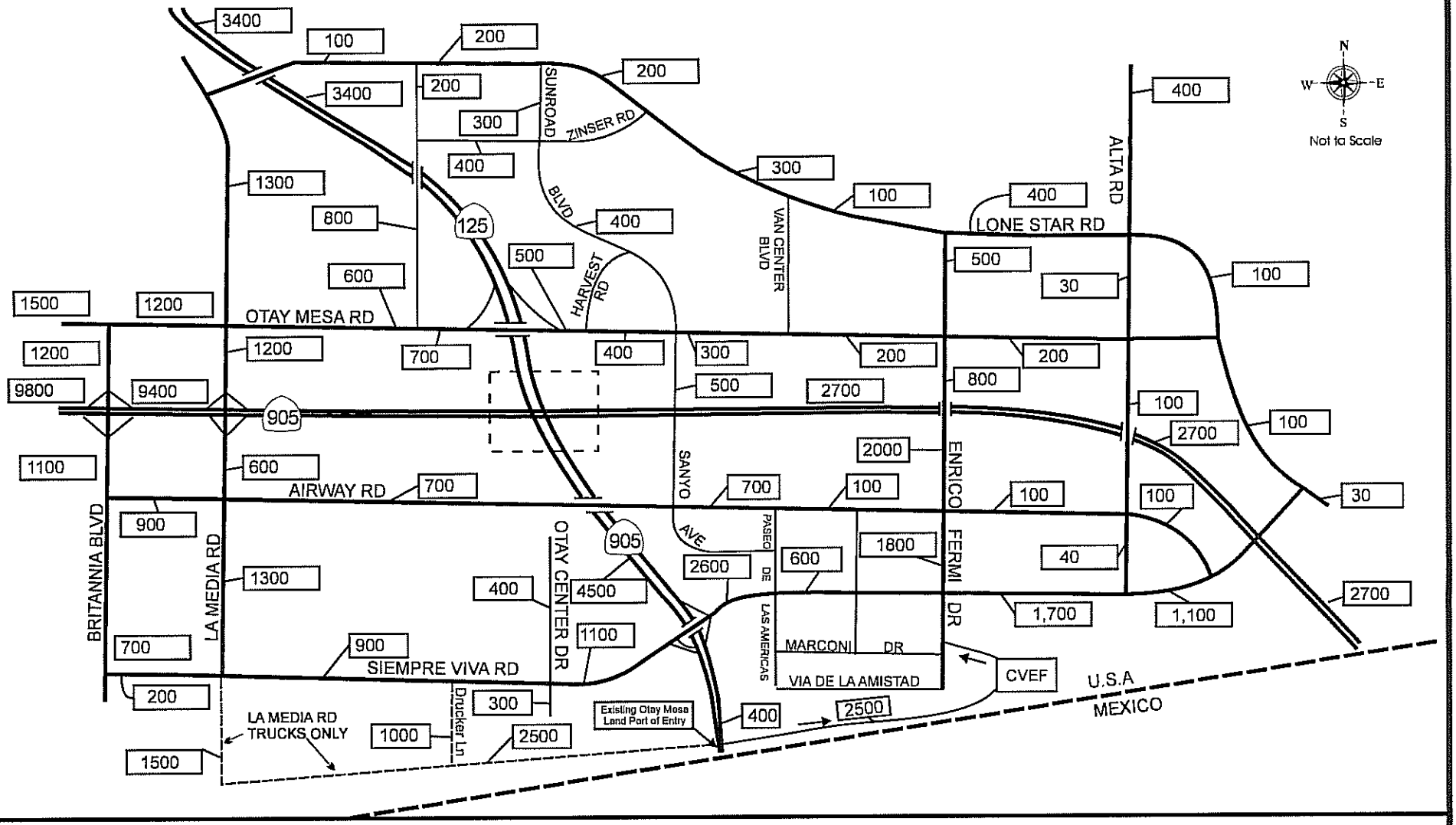
Opening Year (2015) Daily Truck Trips -
SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-49a



Opening Year (2015) Daily Truck Trips - SR-125 Connector/No Interchange Design Variation

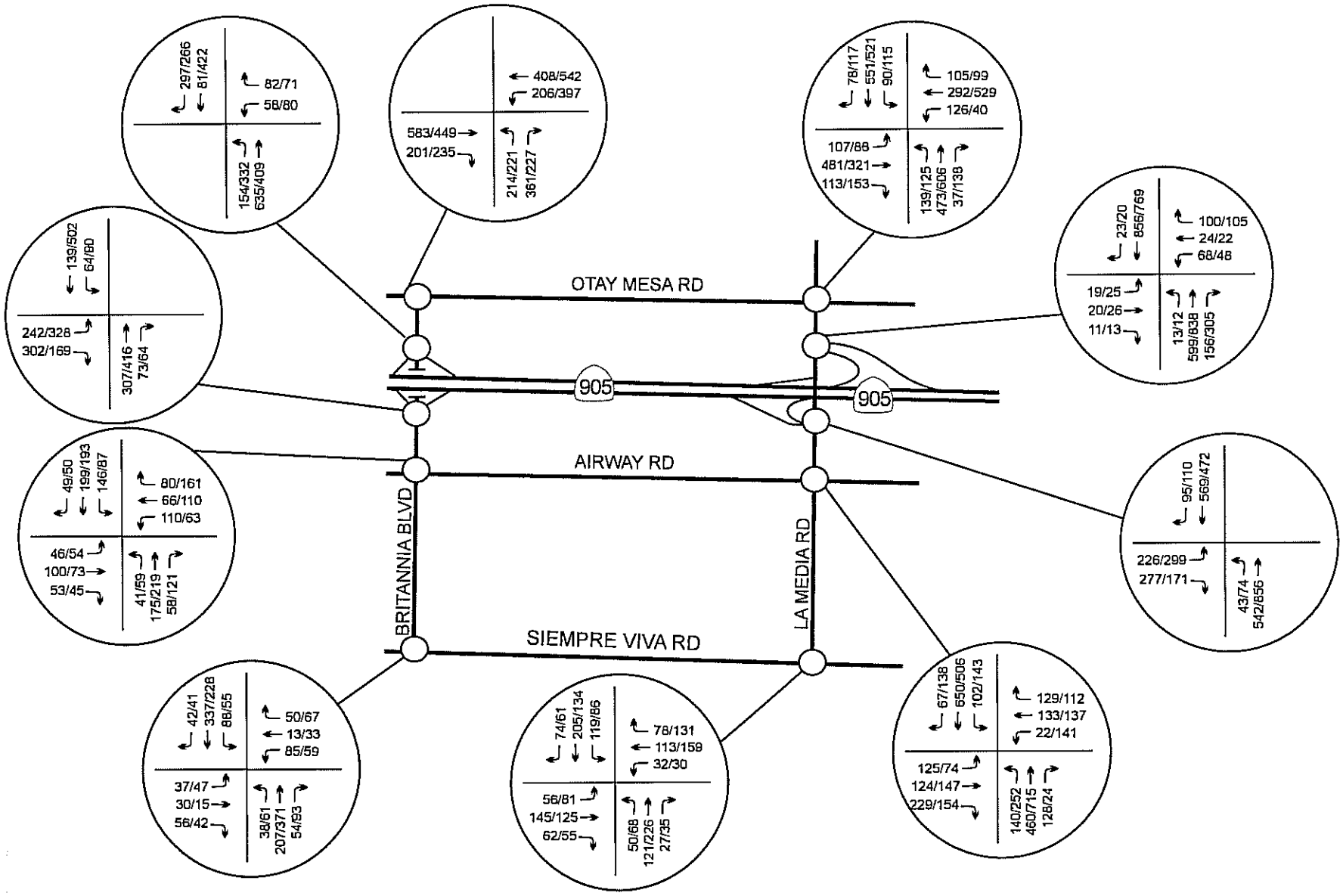
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-49b



Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

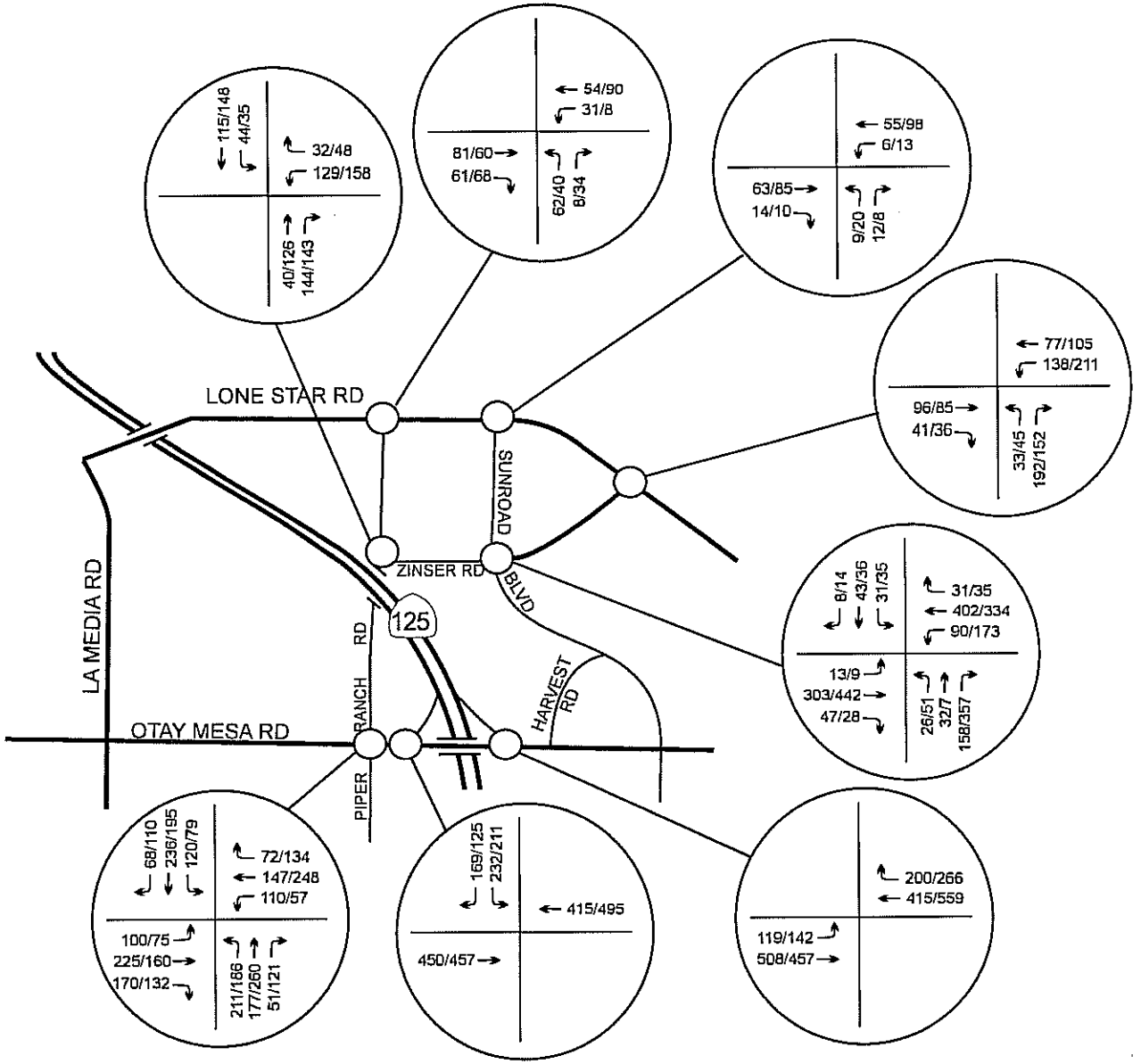
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

Key Intersection

Figure 4-50a

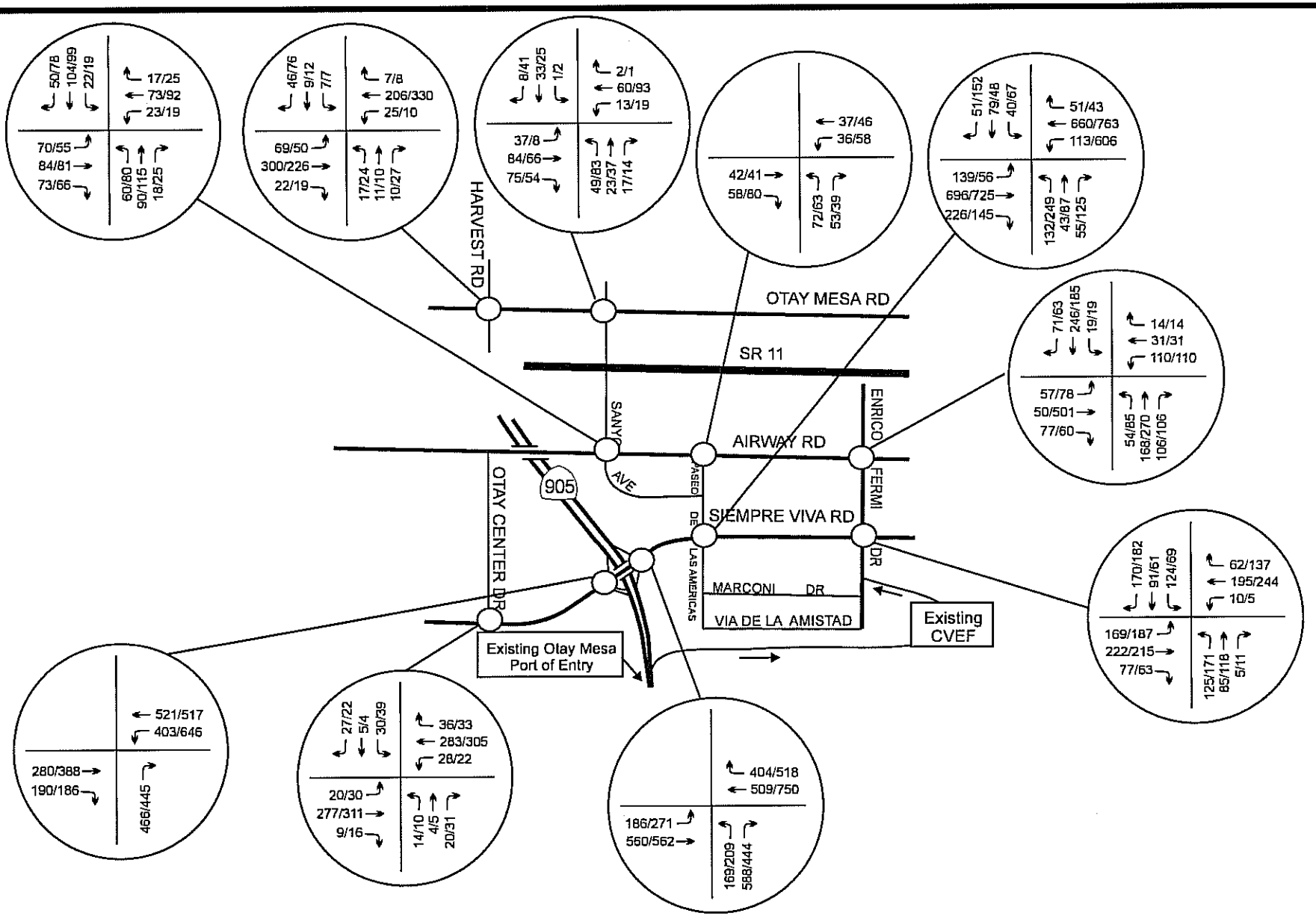


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-50b

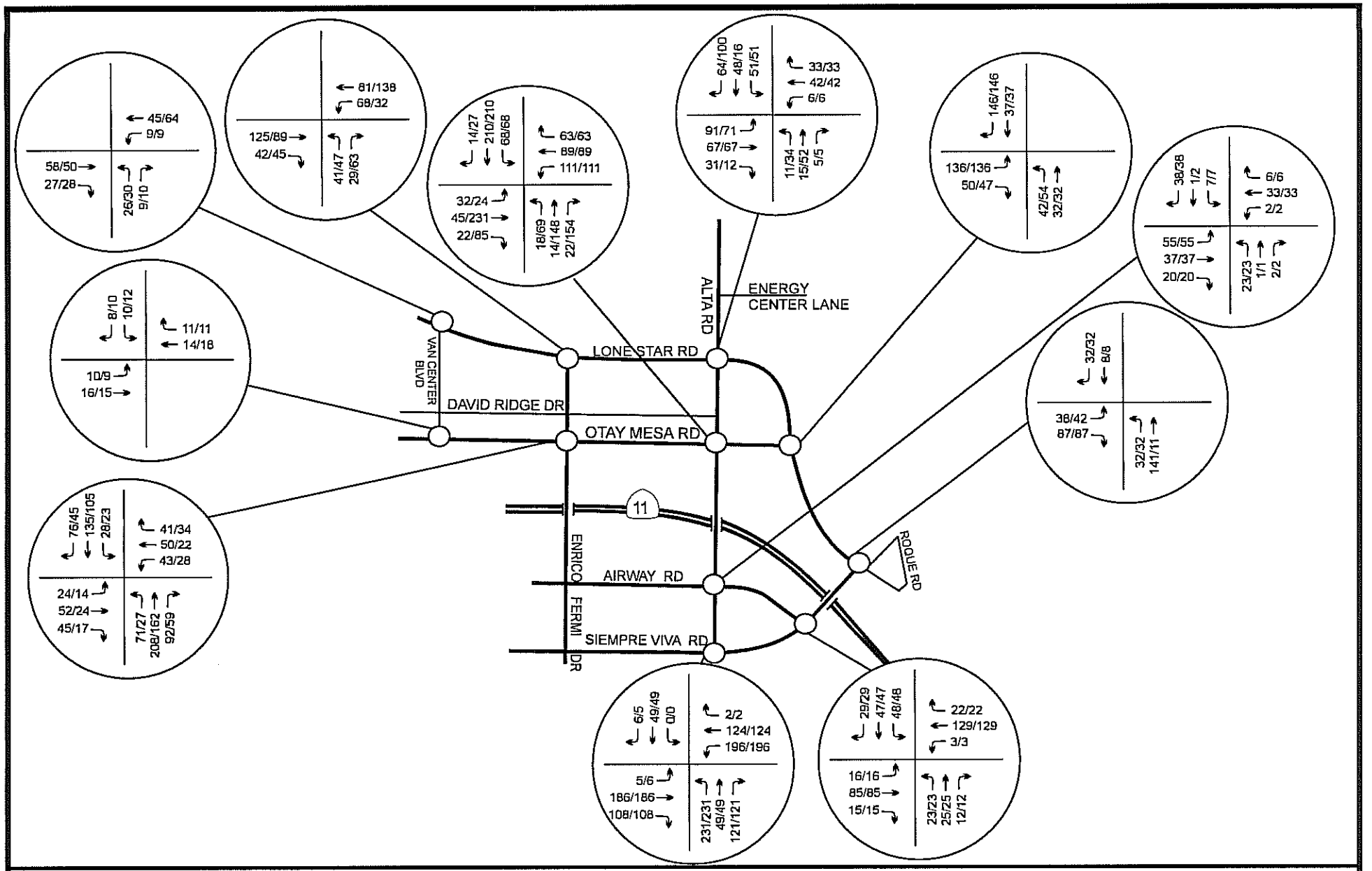


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-50c

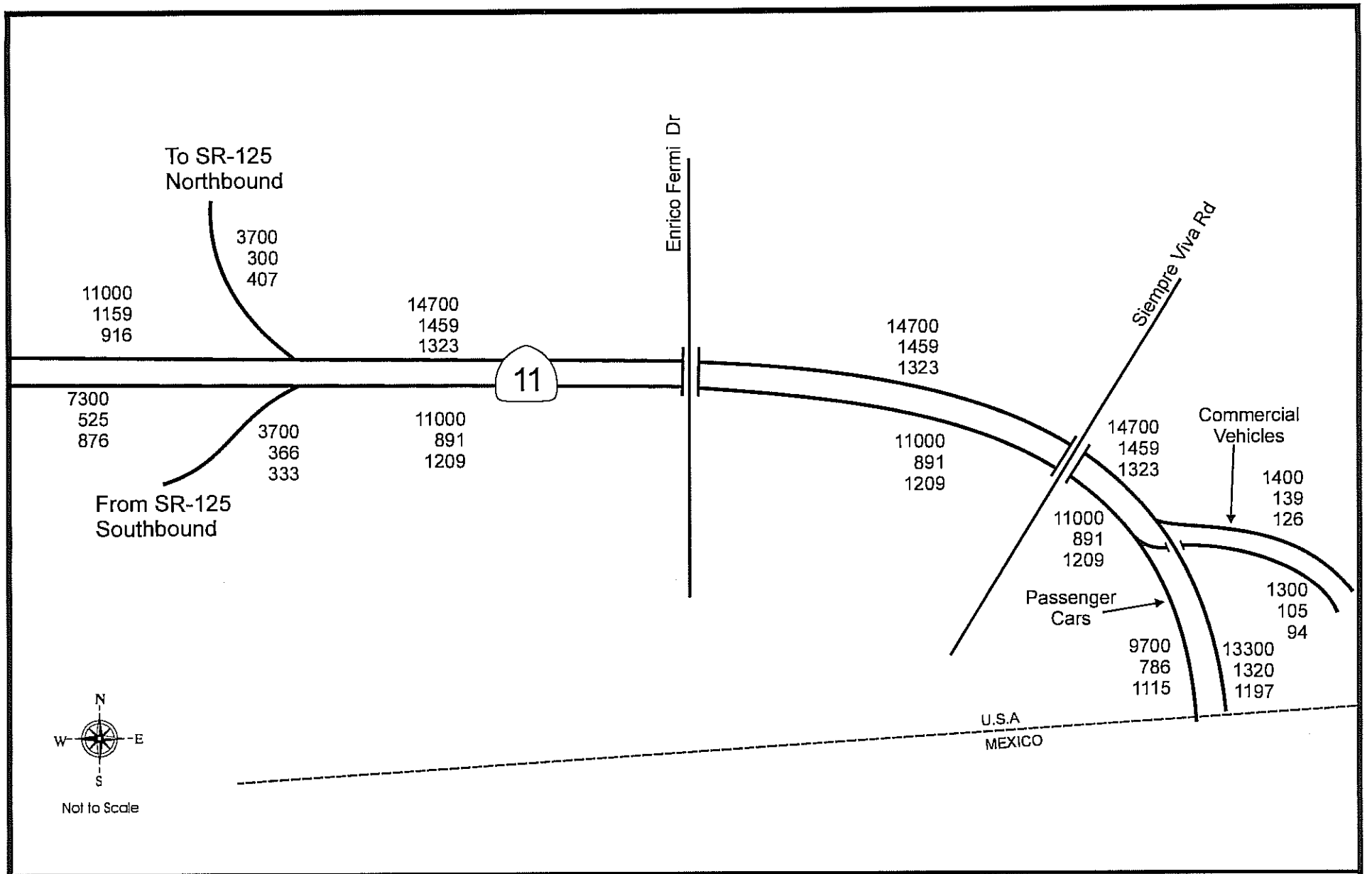


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-50d

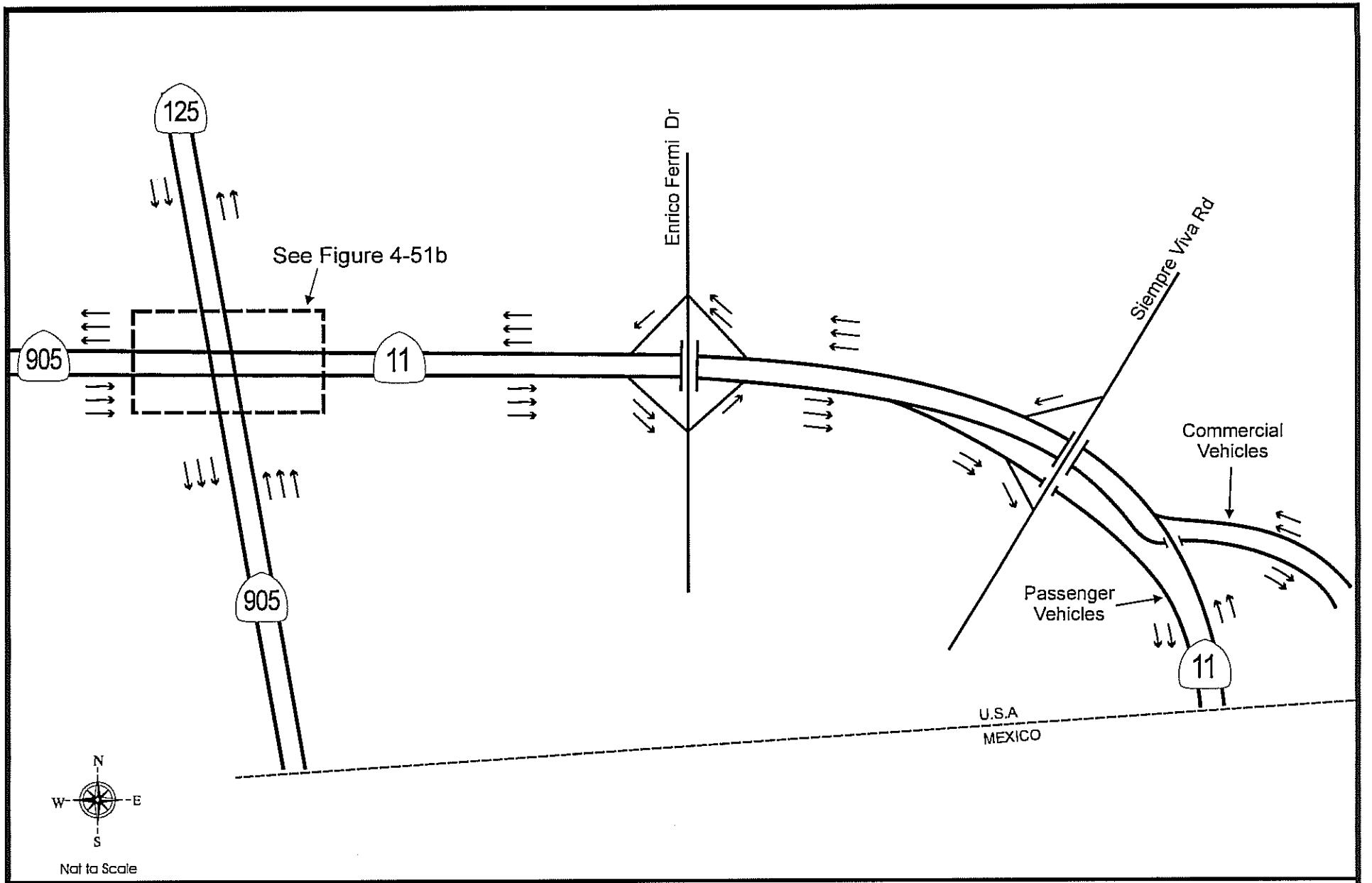


Opening Year (2015) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - SR-125 Connector/No Interchange Design Variation

Legend

XXXXX	Average Daily Traffic
XXXX	AM Peak Hour
XXXX	PM Peak Hour

Figure 4-50e

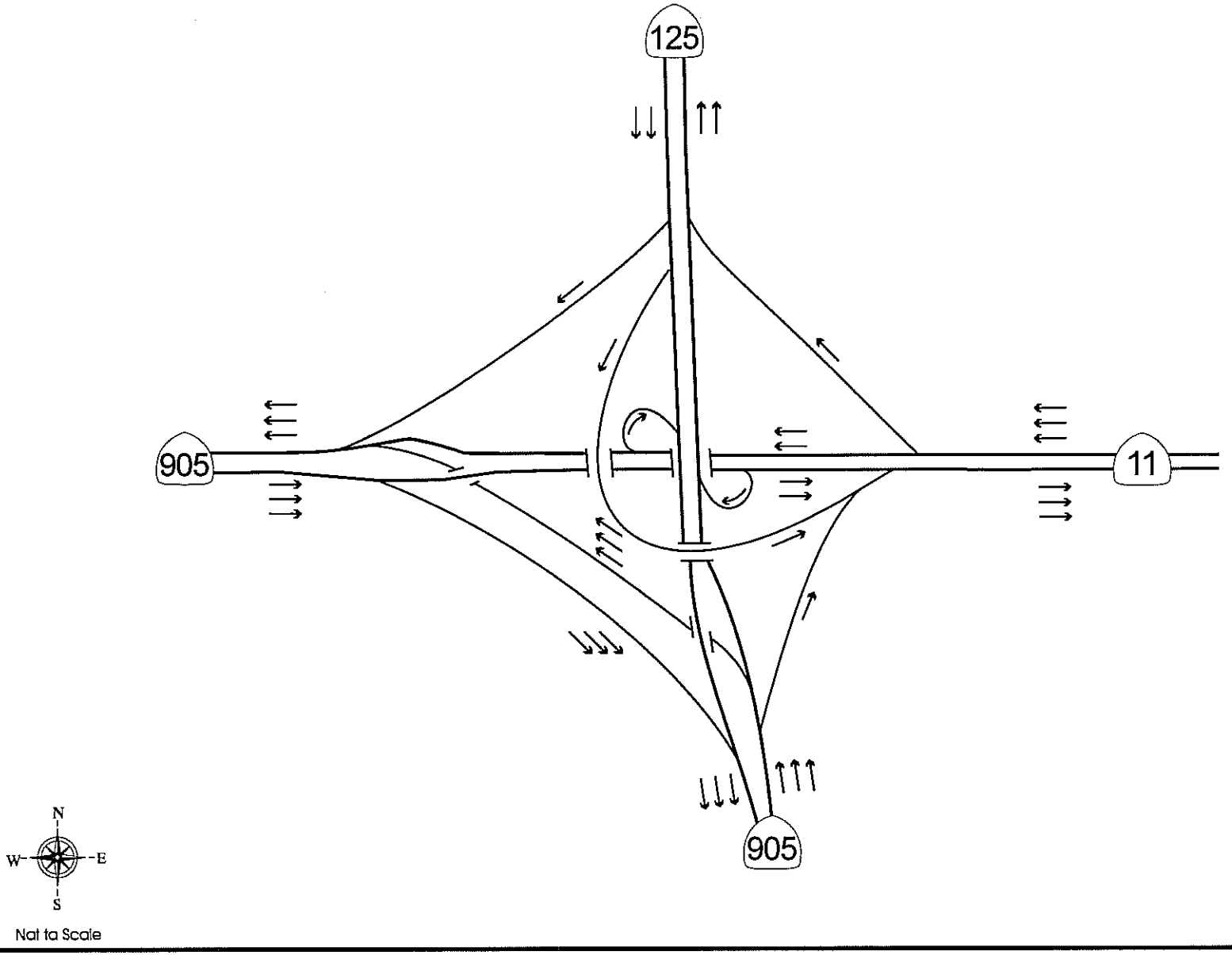


Opening Year (2015) SR-11 Lane Geometry
Full Interchange/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-51a

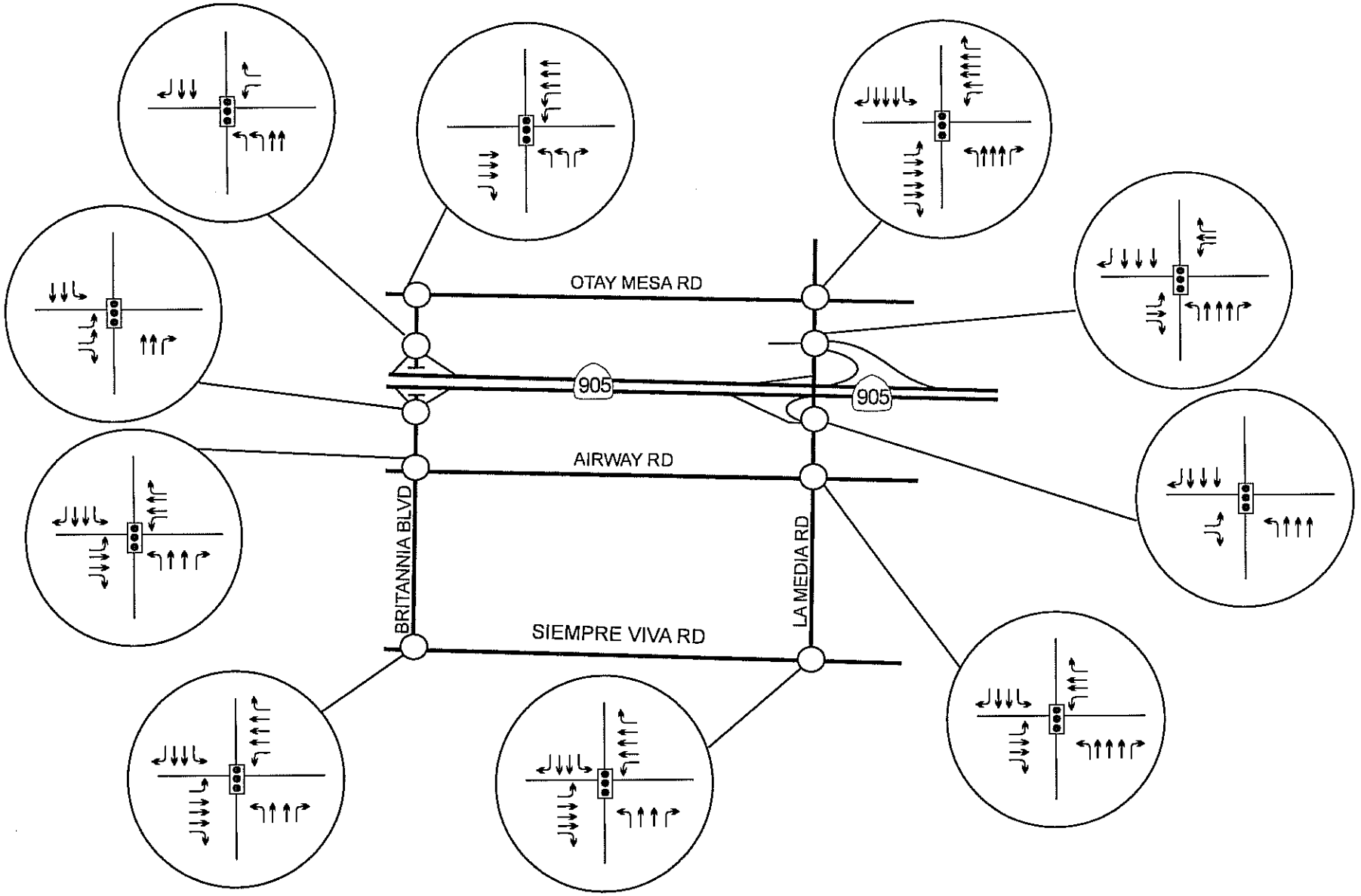


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
Full Interchange/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 4-51b



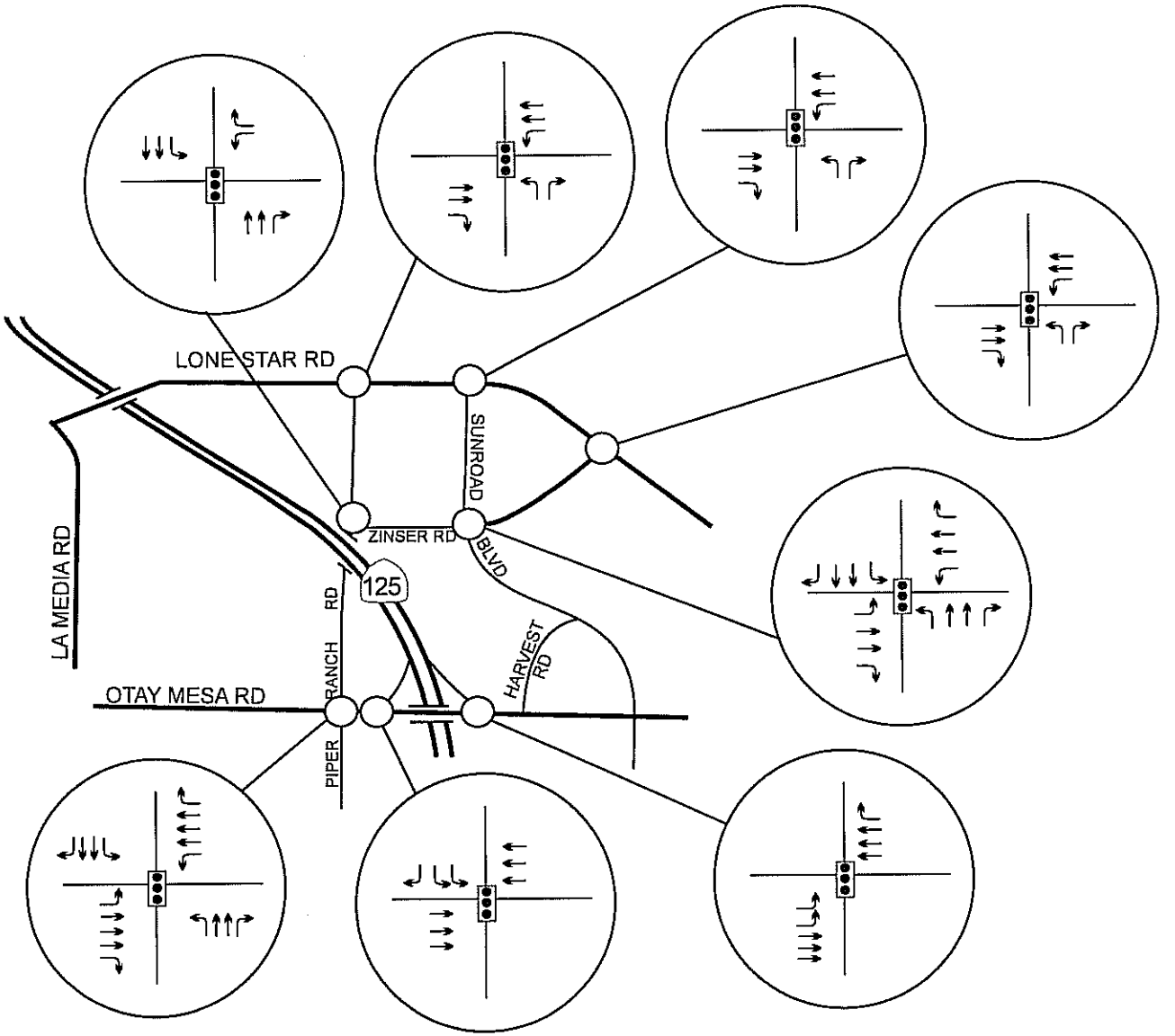
Opening Year (2015) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-52a



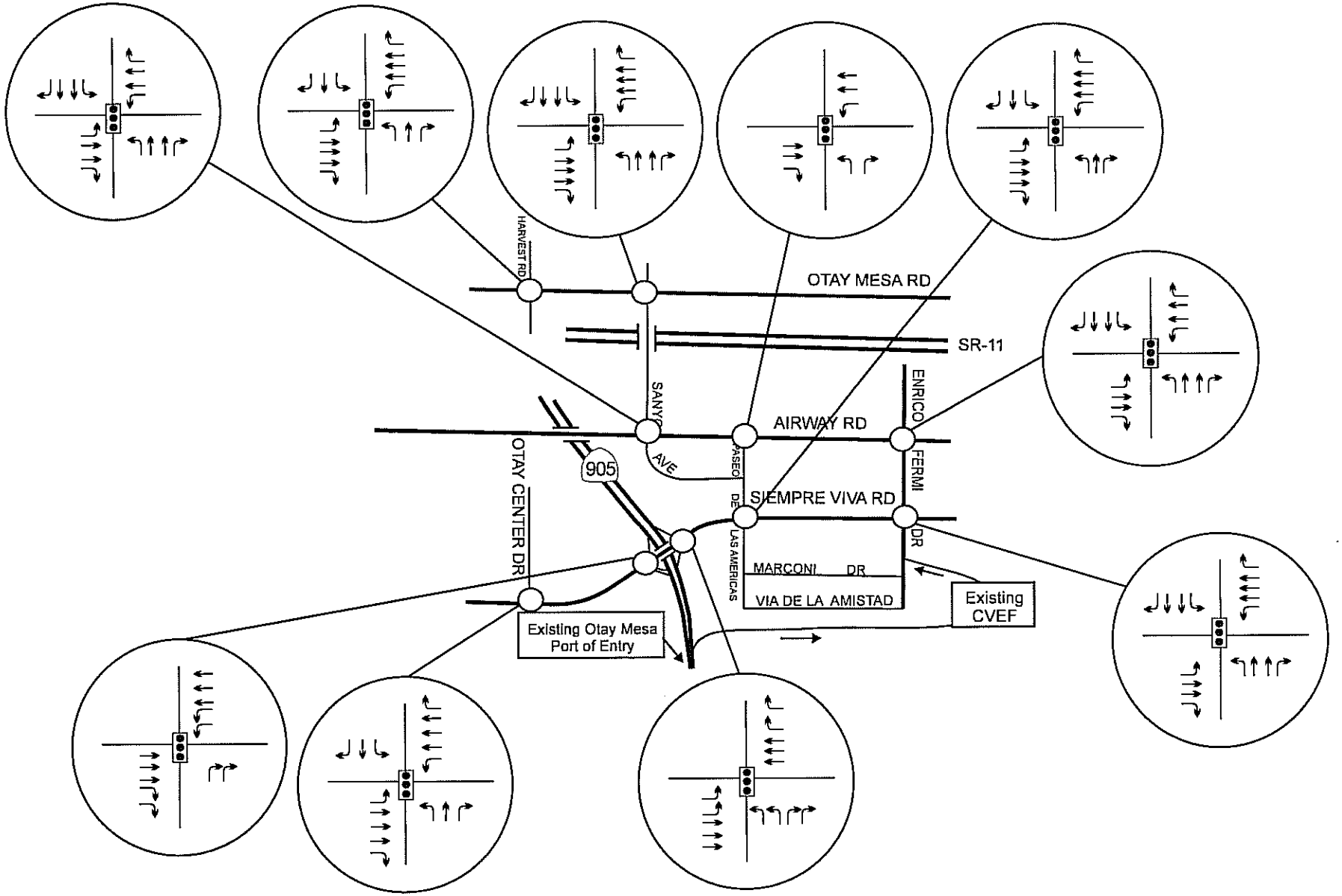
Opening Year (2015) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-52b



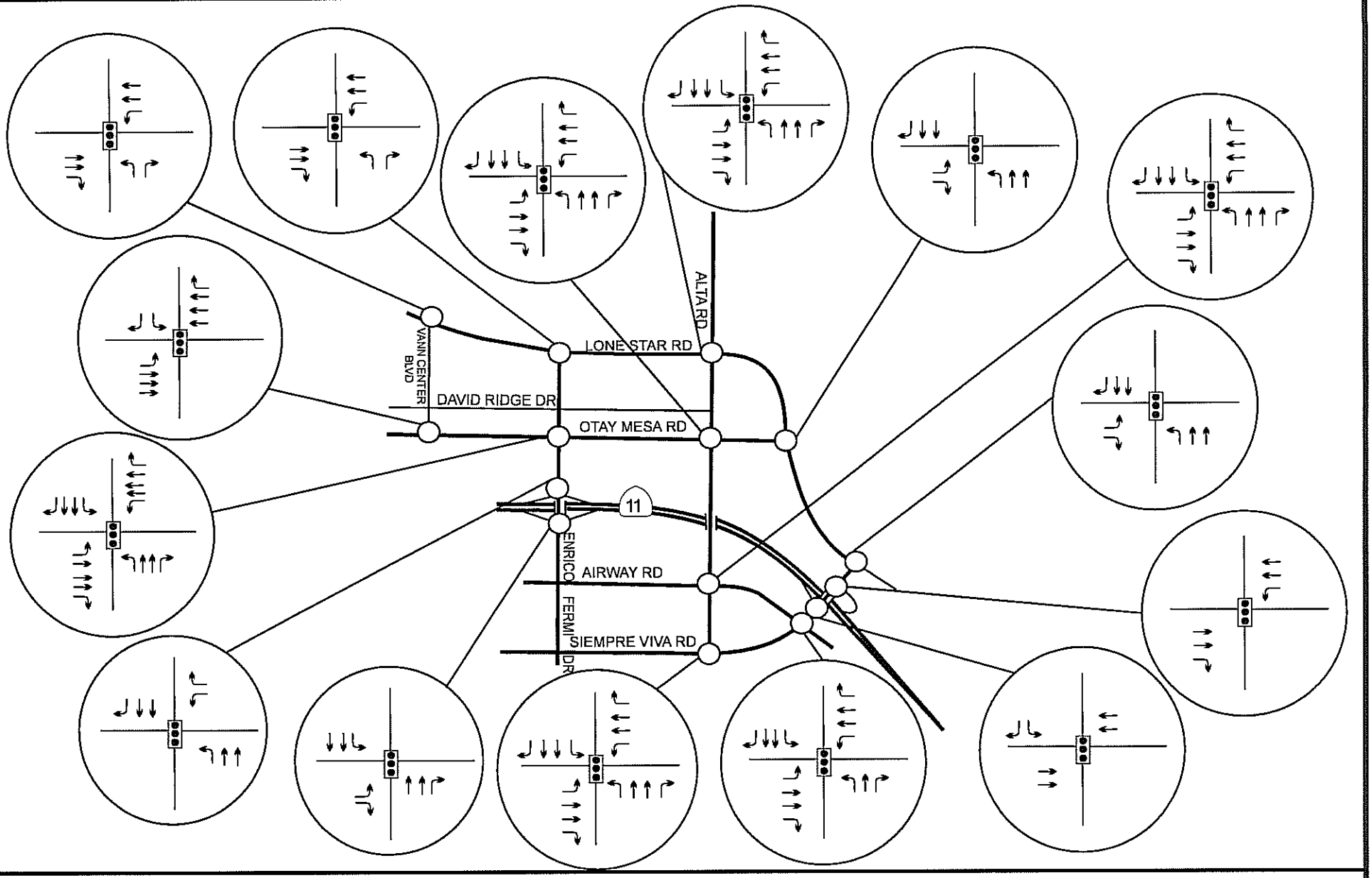
Opening Year (2015) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-52c



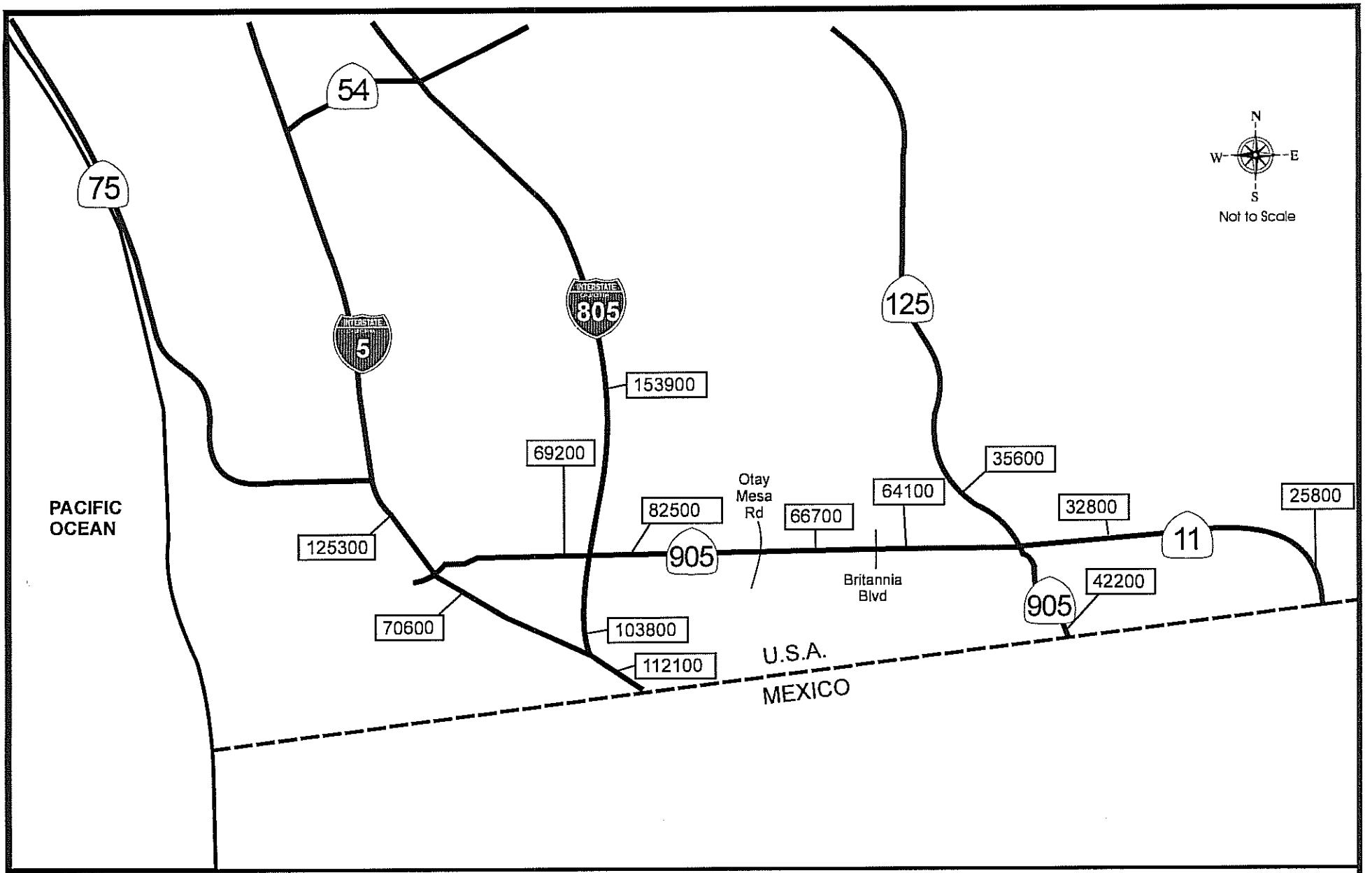
Opening Year (2015) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel

Signal

Figure 4-52d



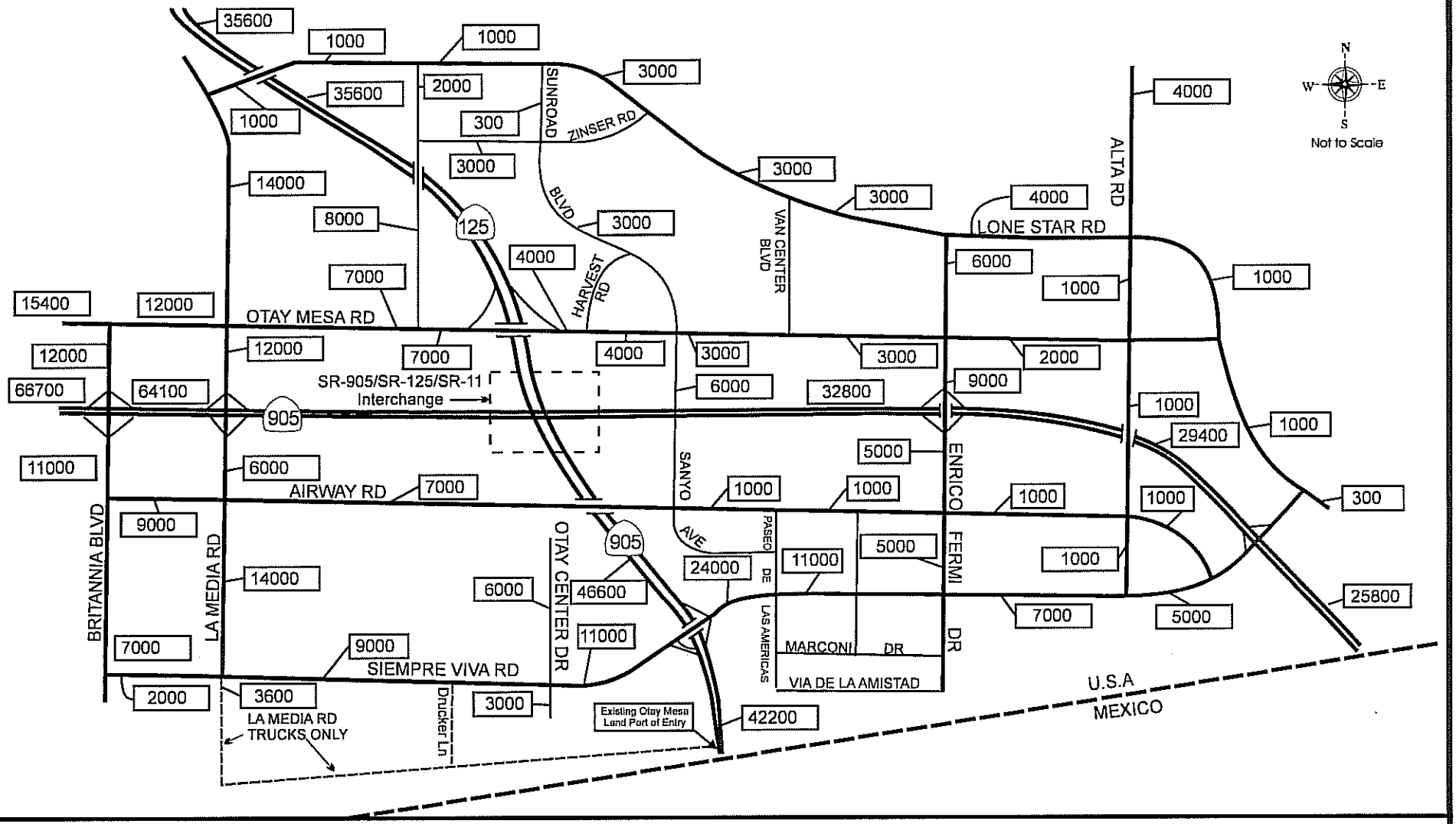
Opening Year (2015) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-53a



Opening Year (2015) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

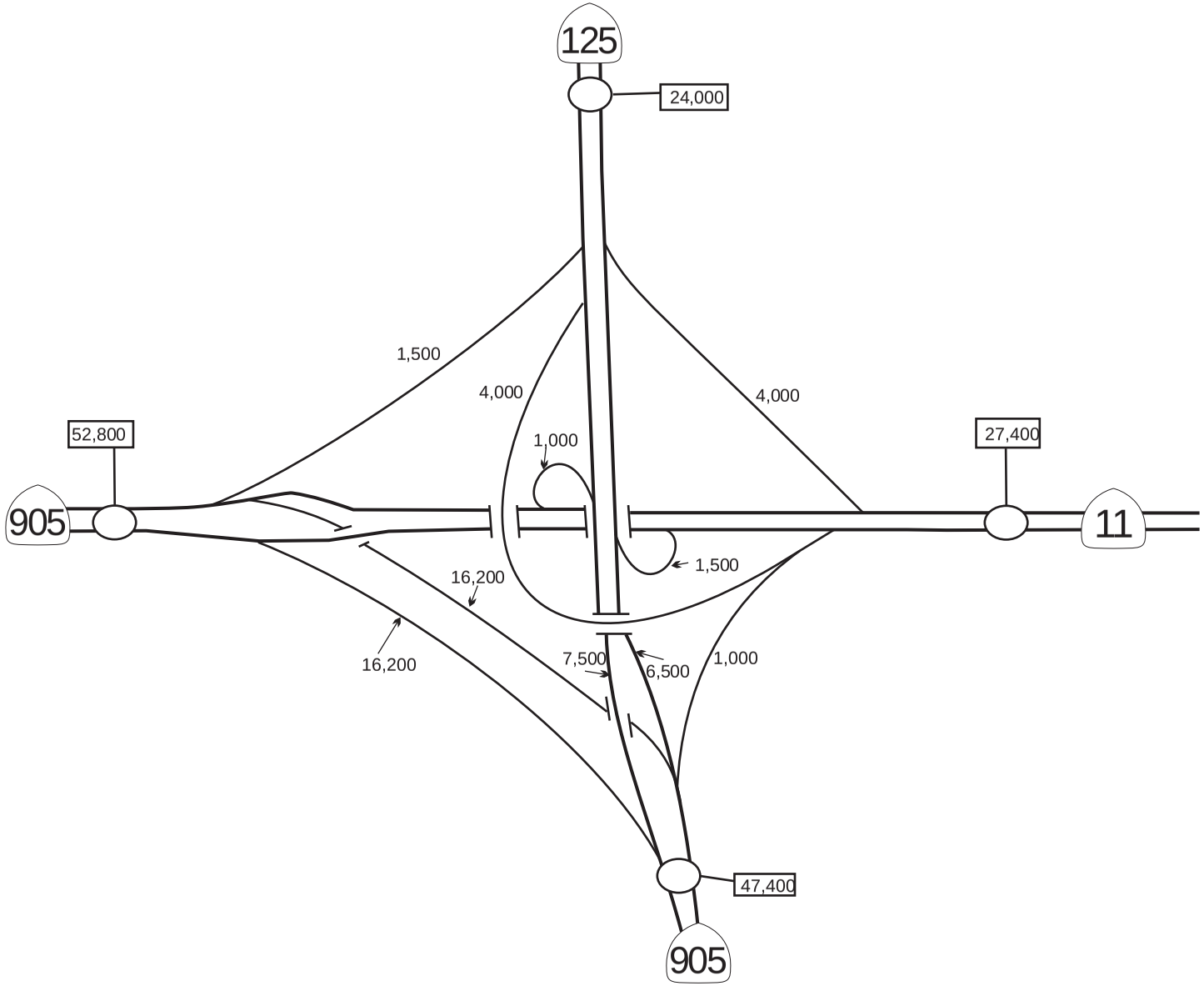
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-53b

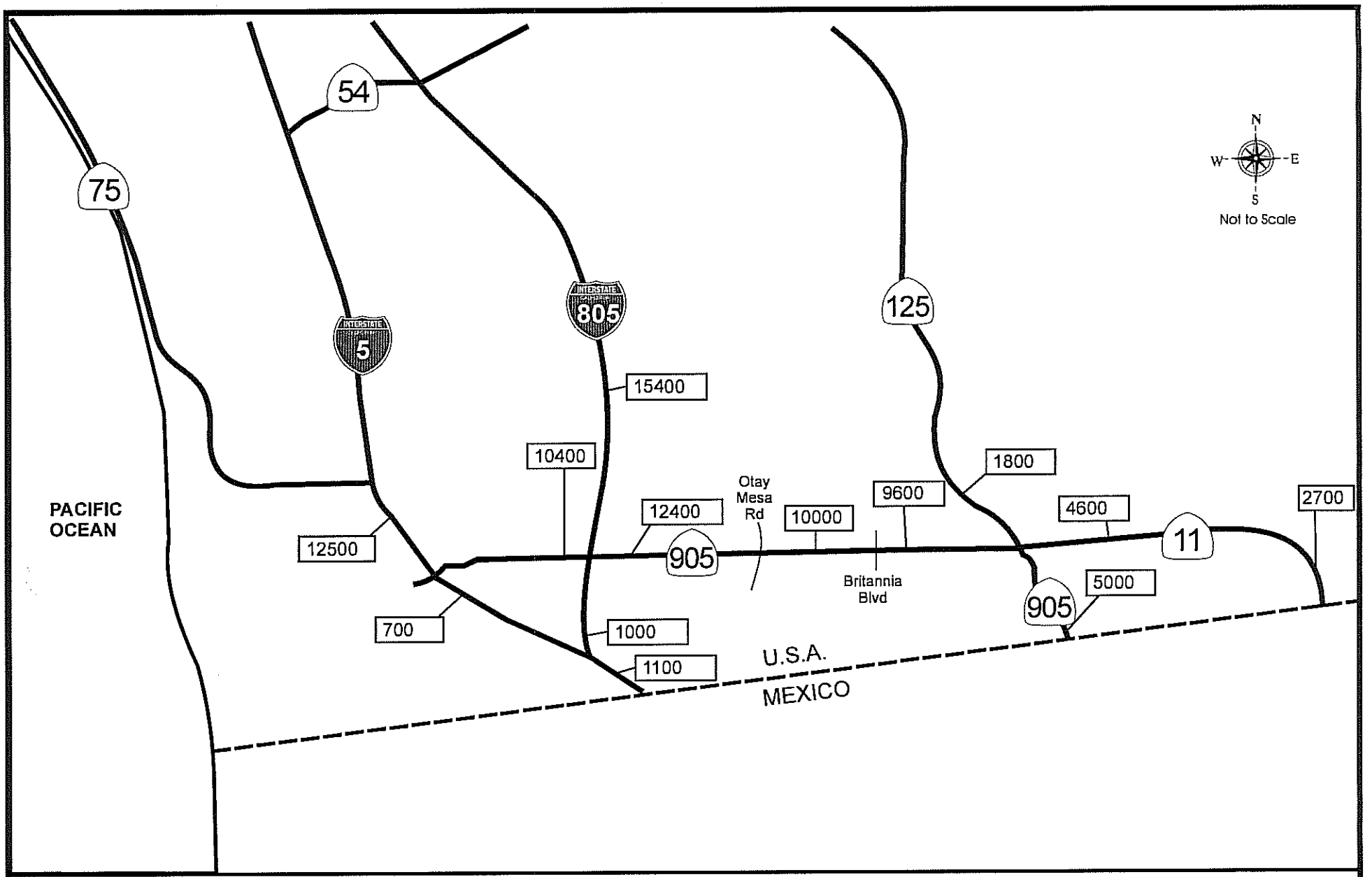


Opening Year (2015) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-53c



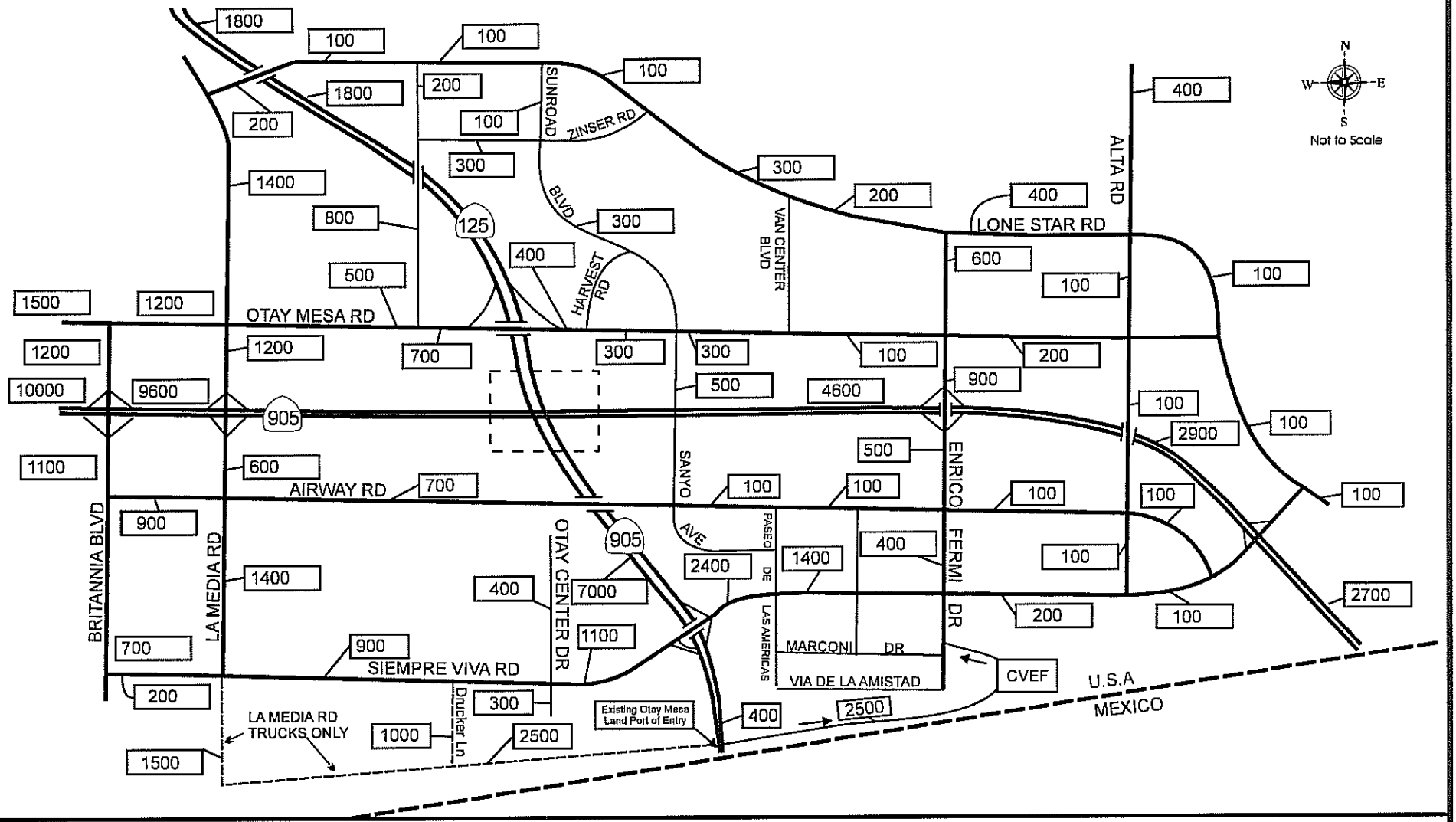
Opening Year (2015) Daily Truck Trips-
Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-54a

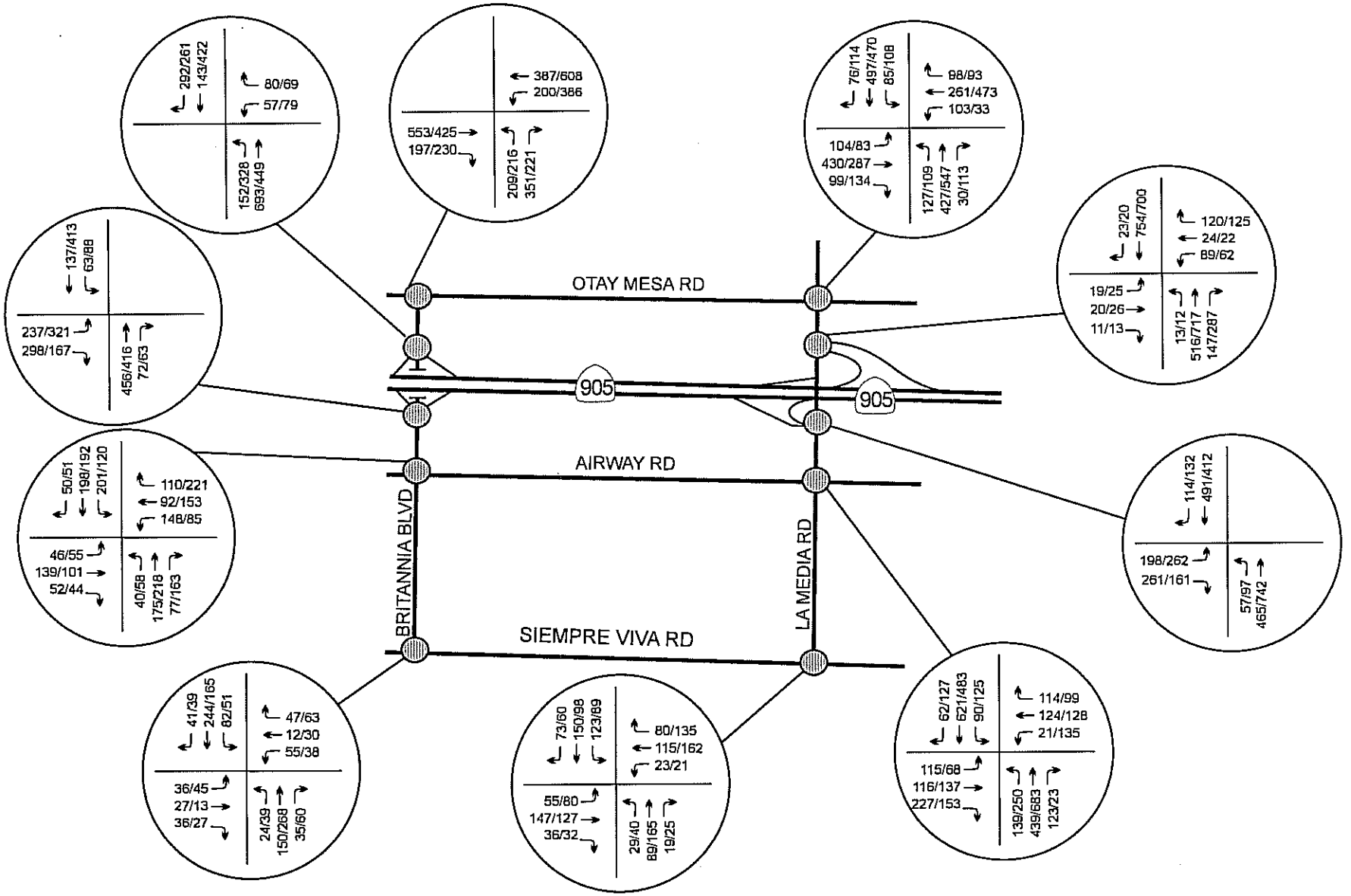


Opening Year (2015) Daily Truck Trips - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 4-54b

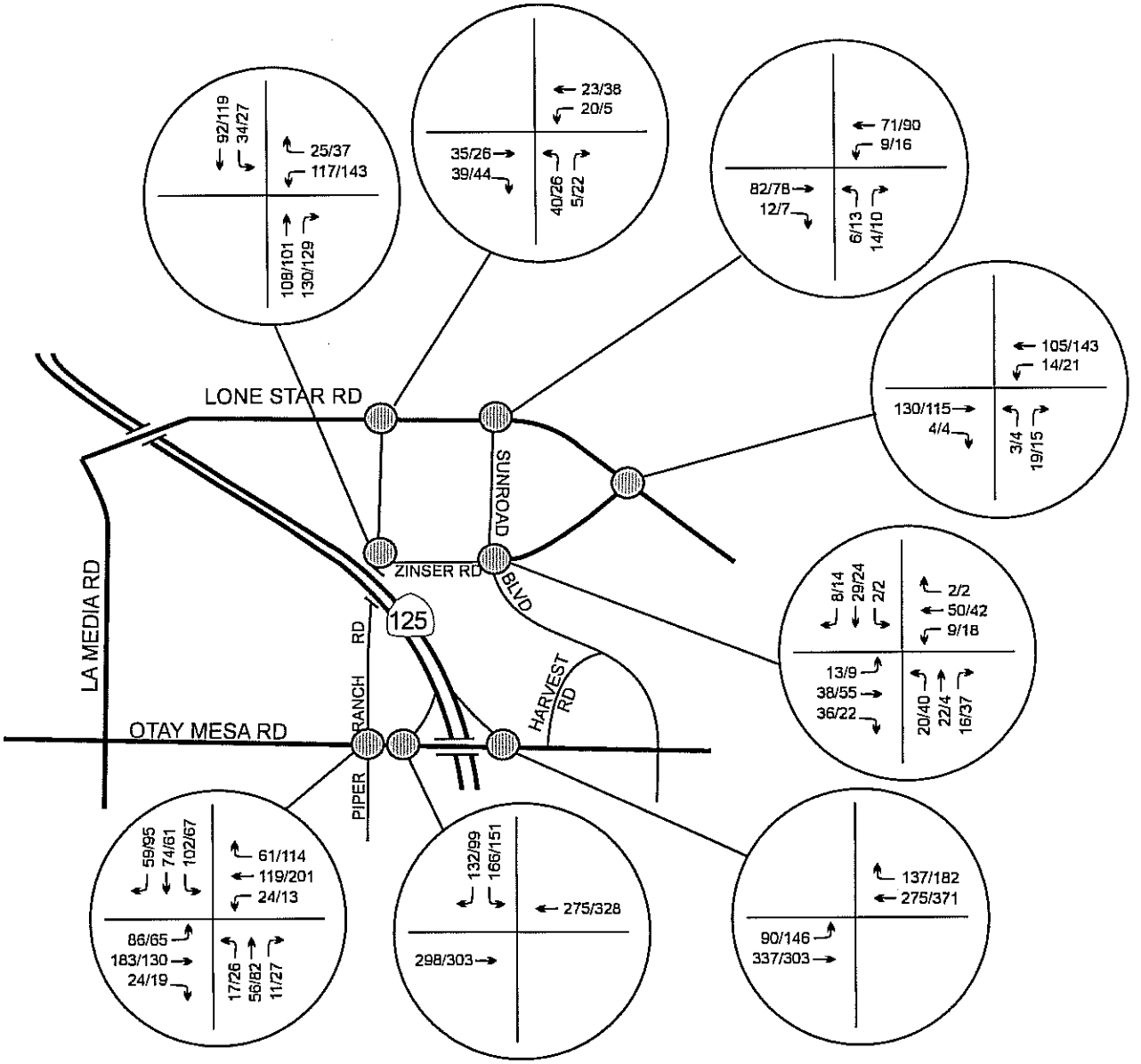


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-55a

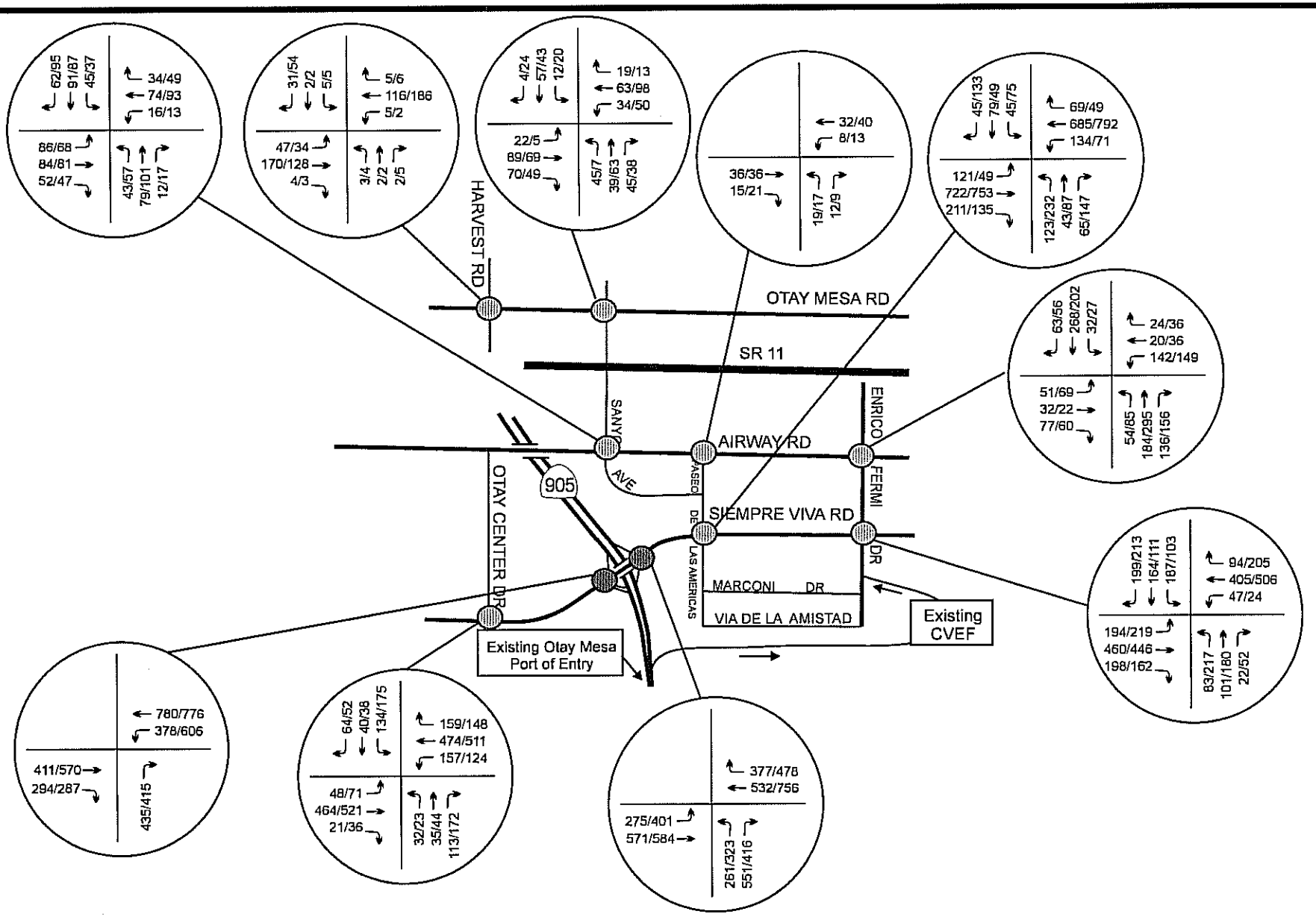


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-55b

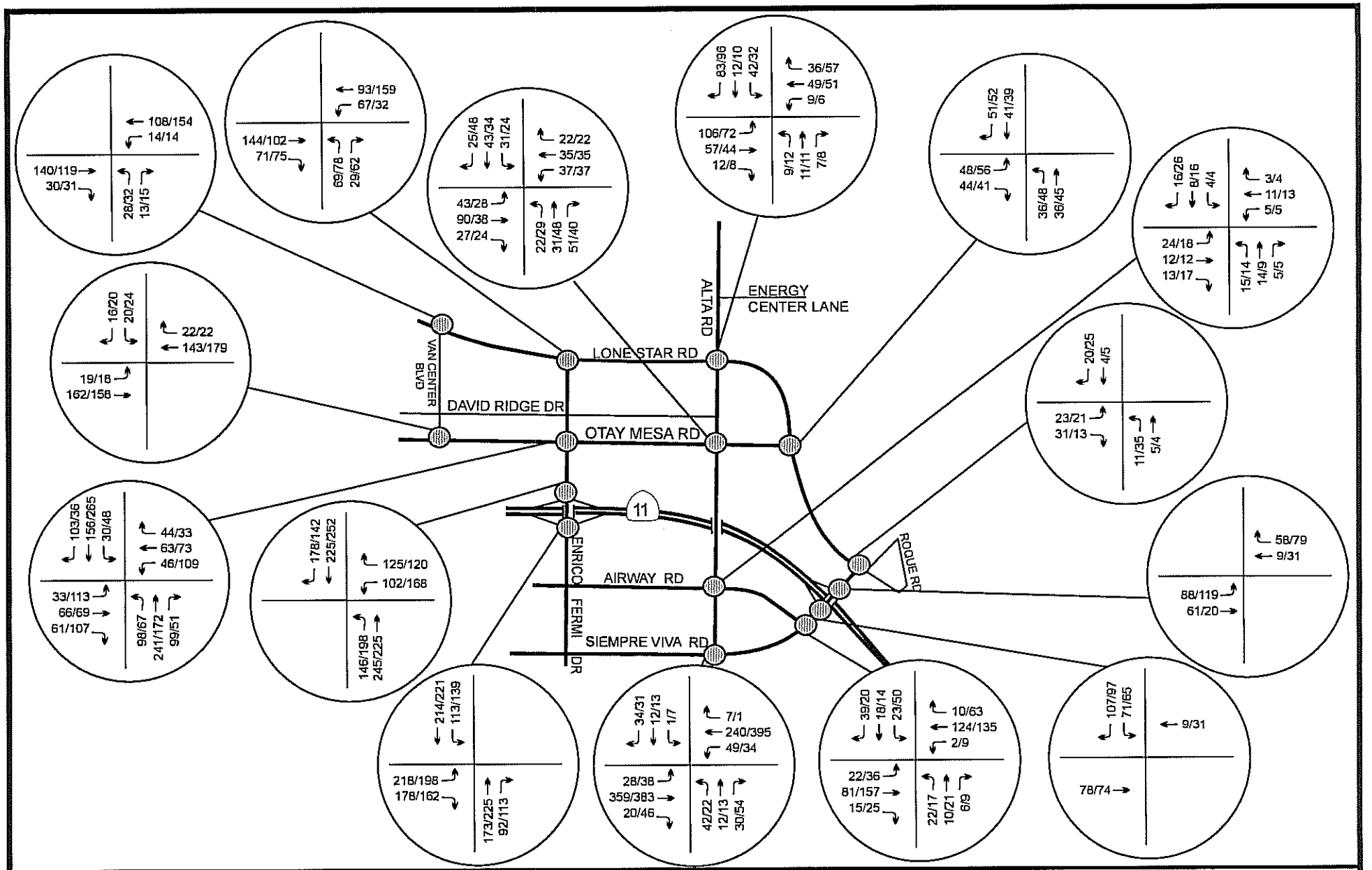


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-55c

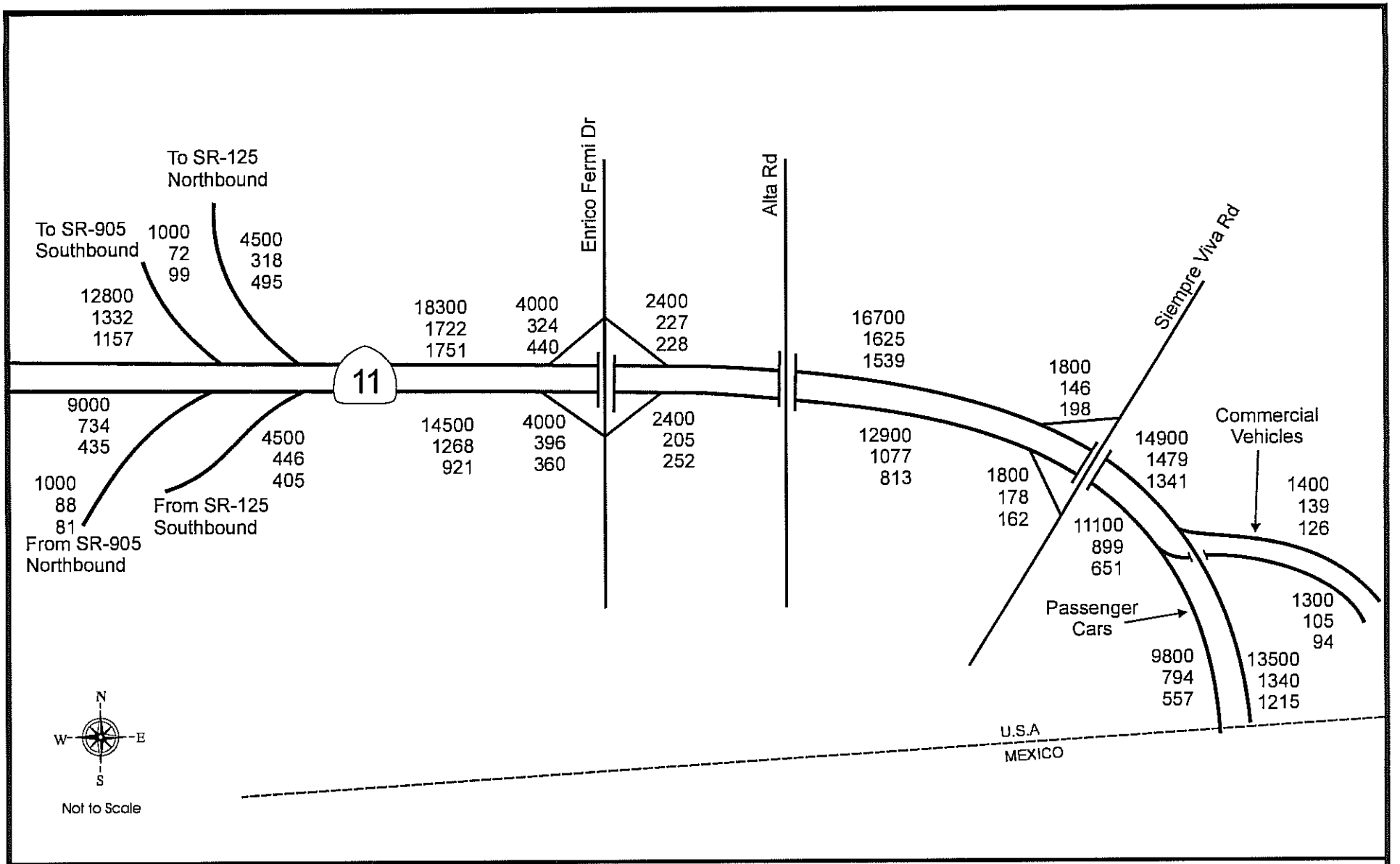


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-55d

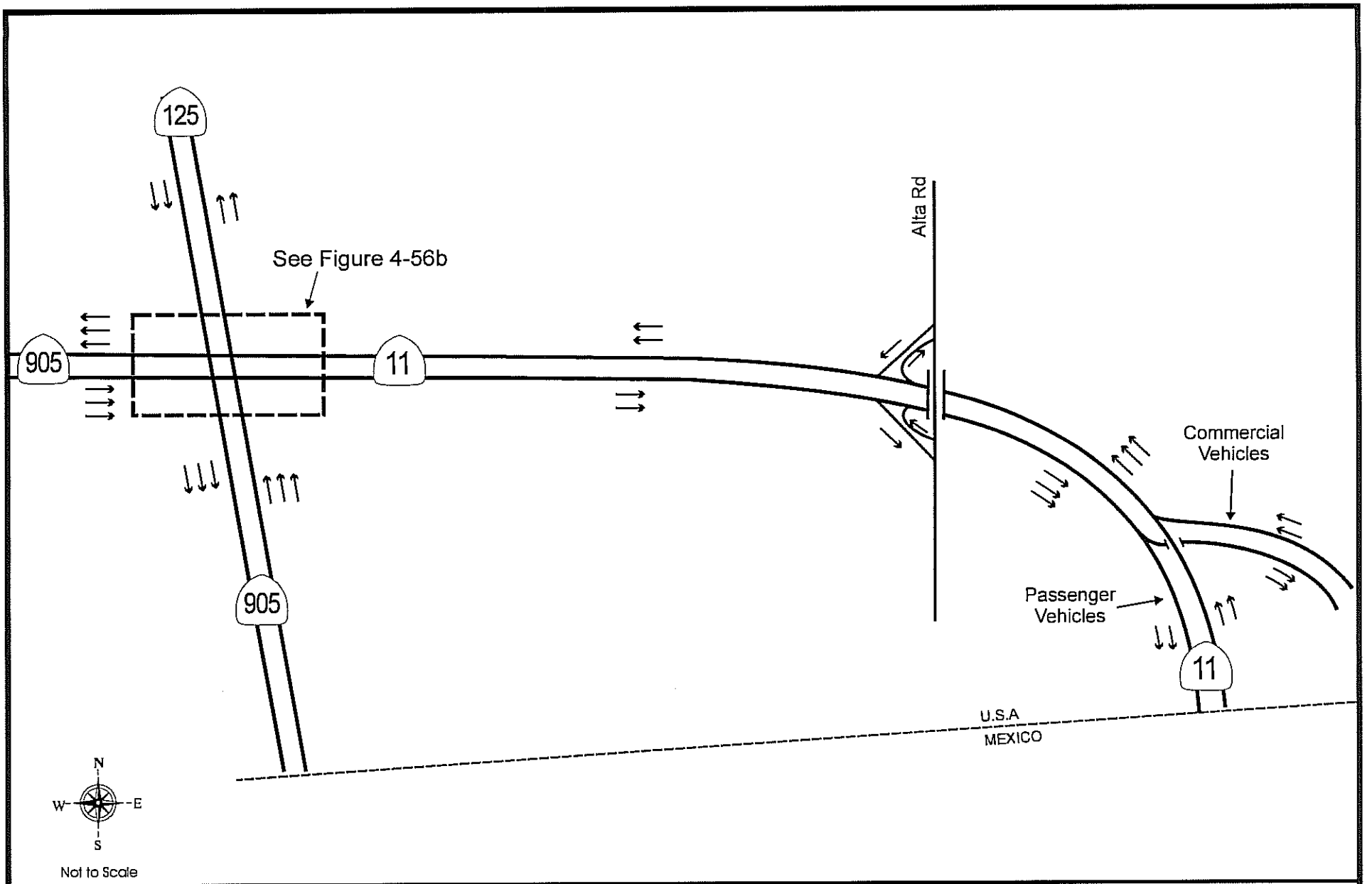


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - Full Interchange/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-55e

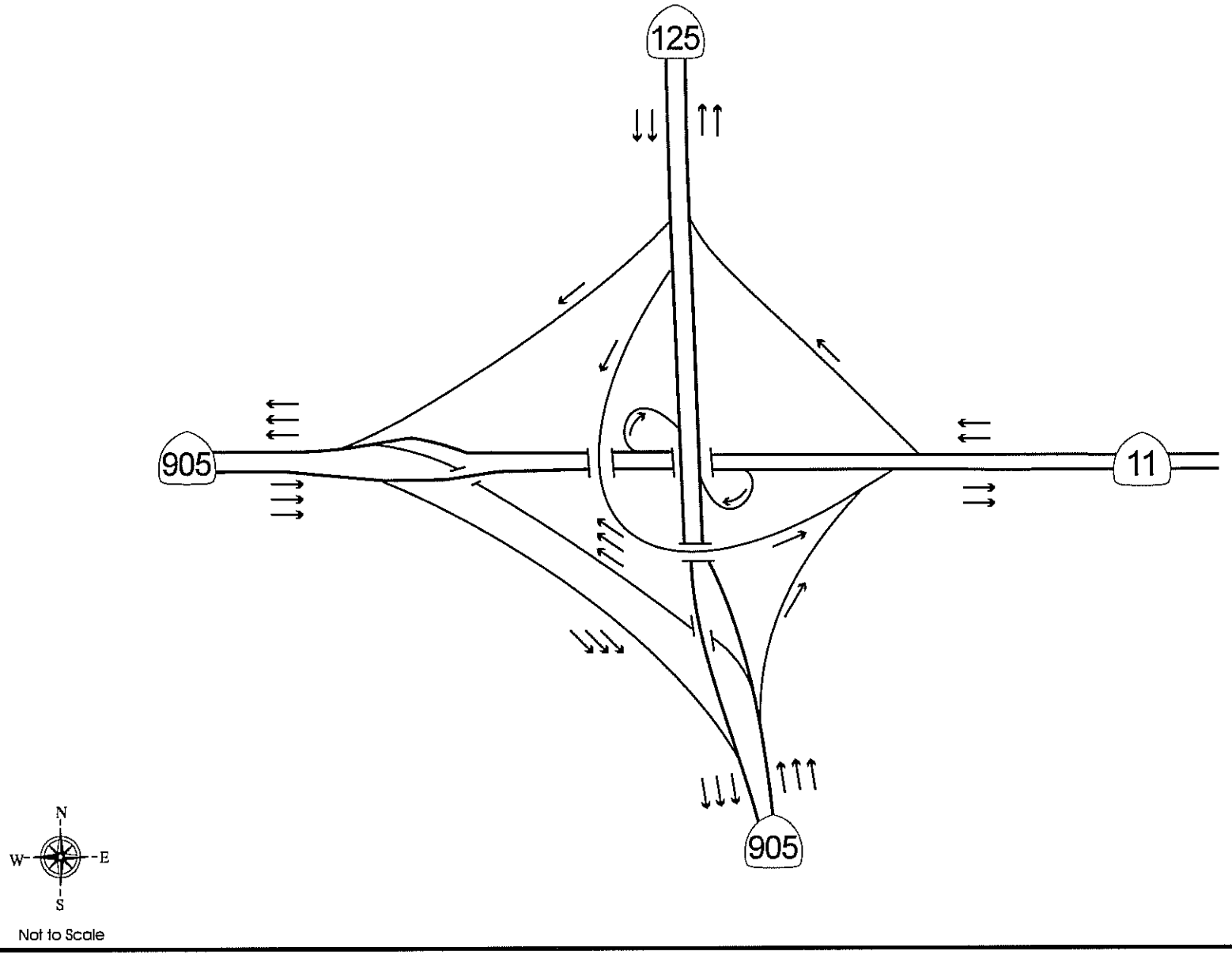


Opening Year (2015) SR-11 Lane Geometry
Full Interchange/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-56a

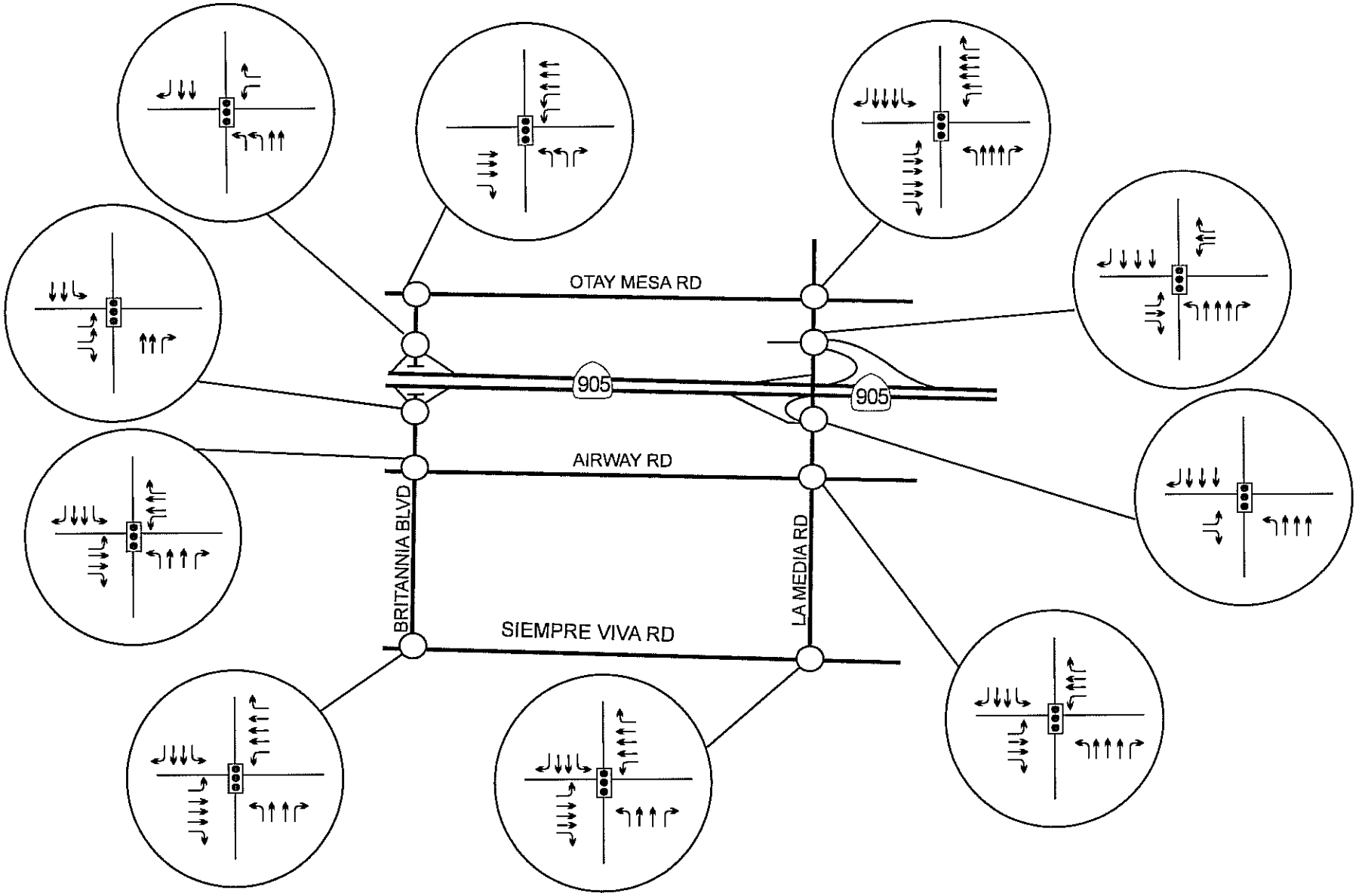


Opening Year (2015) SR-905/SR-125/SR-11 Lane Geometry
Full Interchange/One Interchange Design Variation

Legend

← Number of Lanes

Figure 4-56b

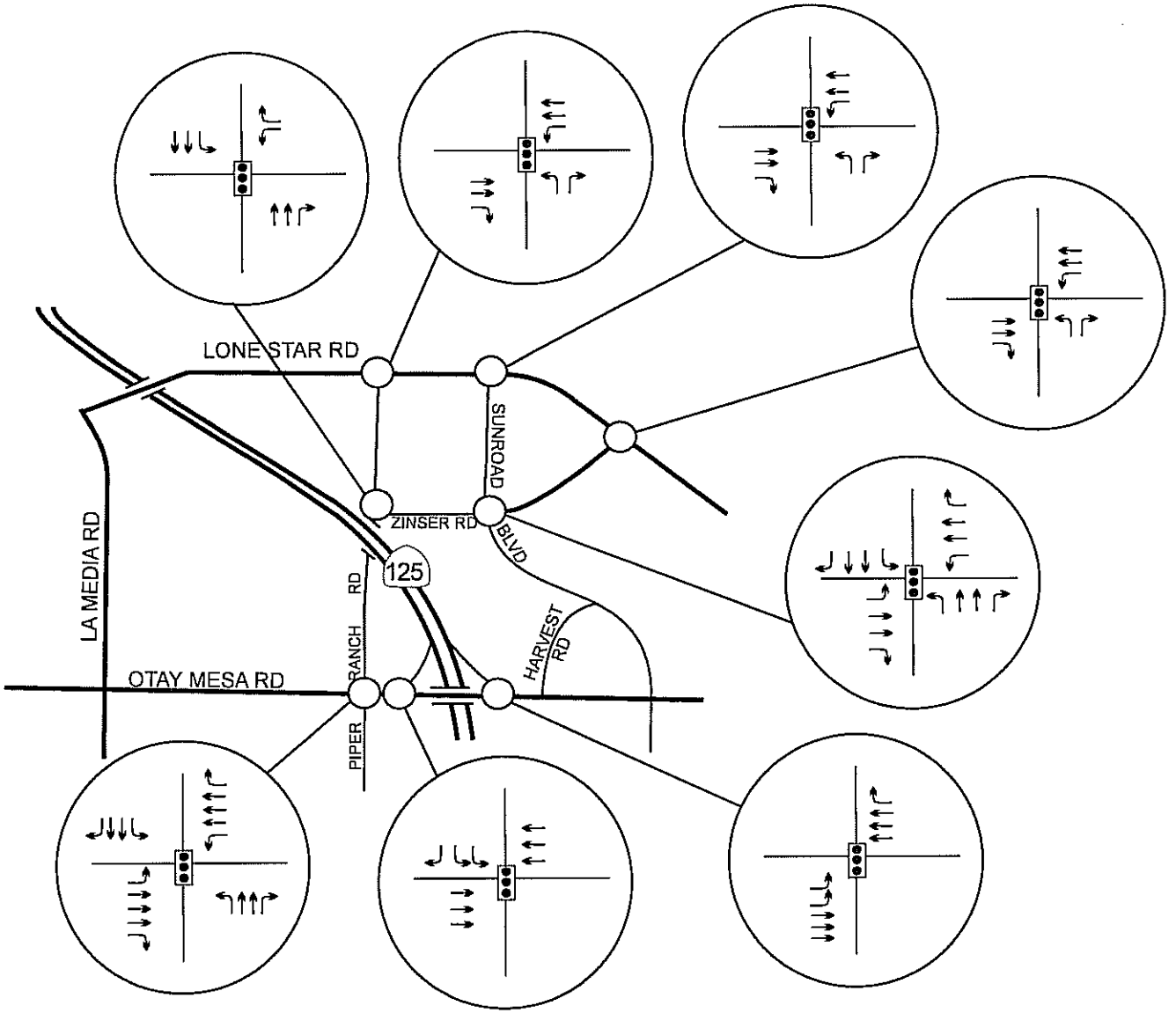


Opening Year (2015) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-57a

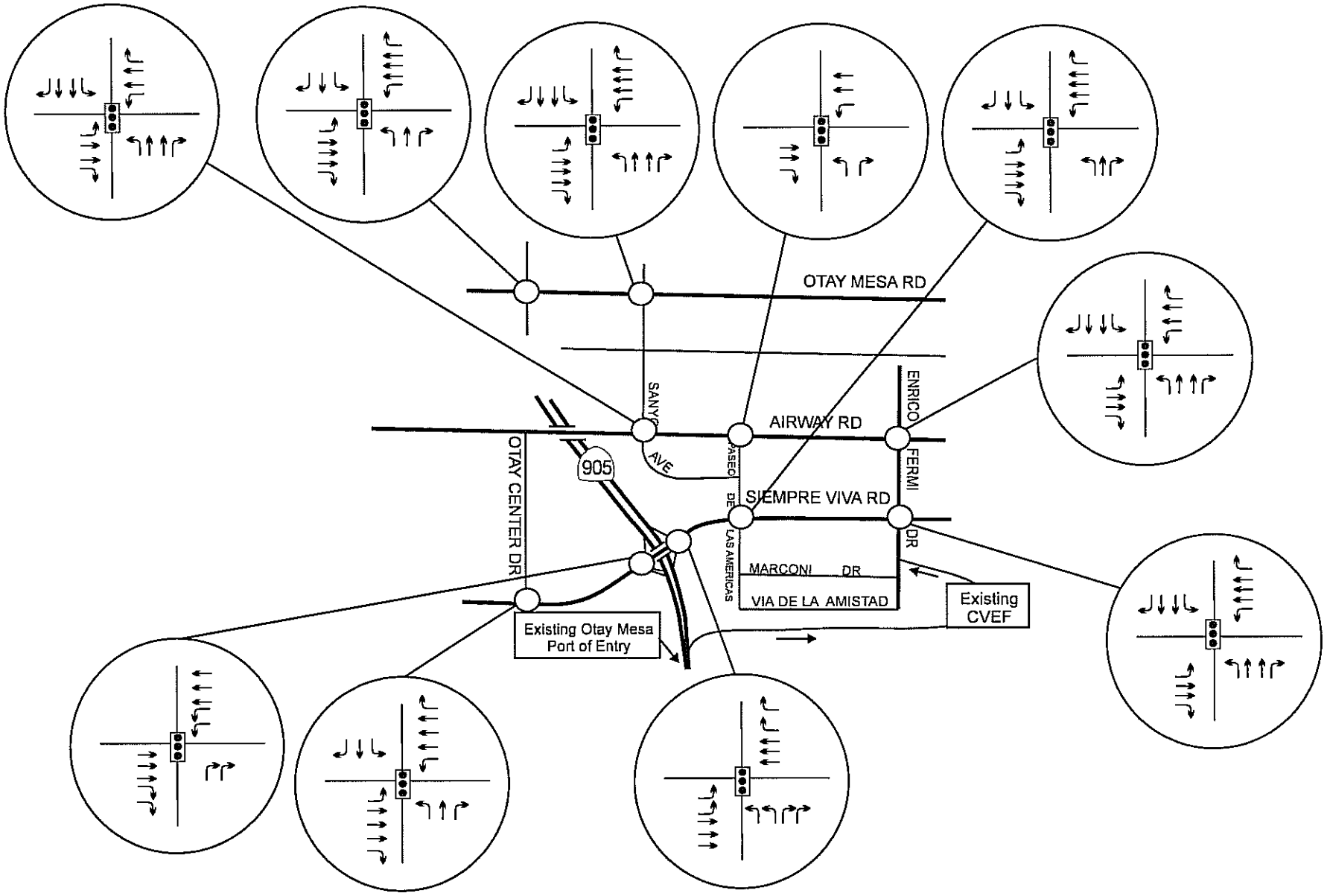


Opening Year (2015) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-57b

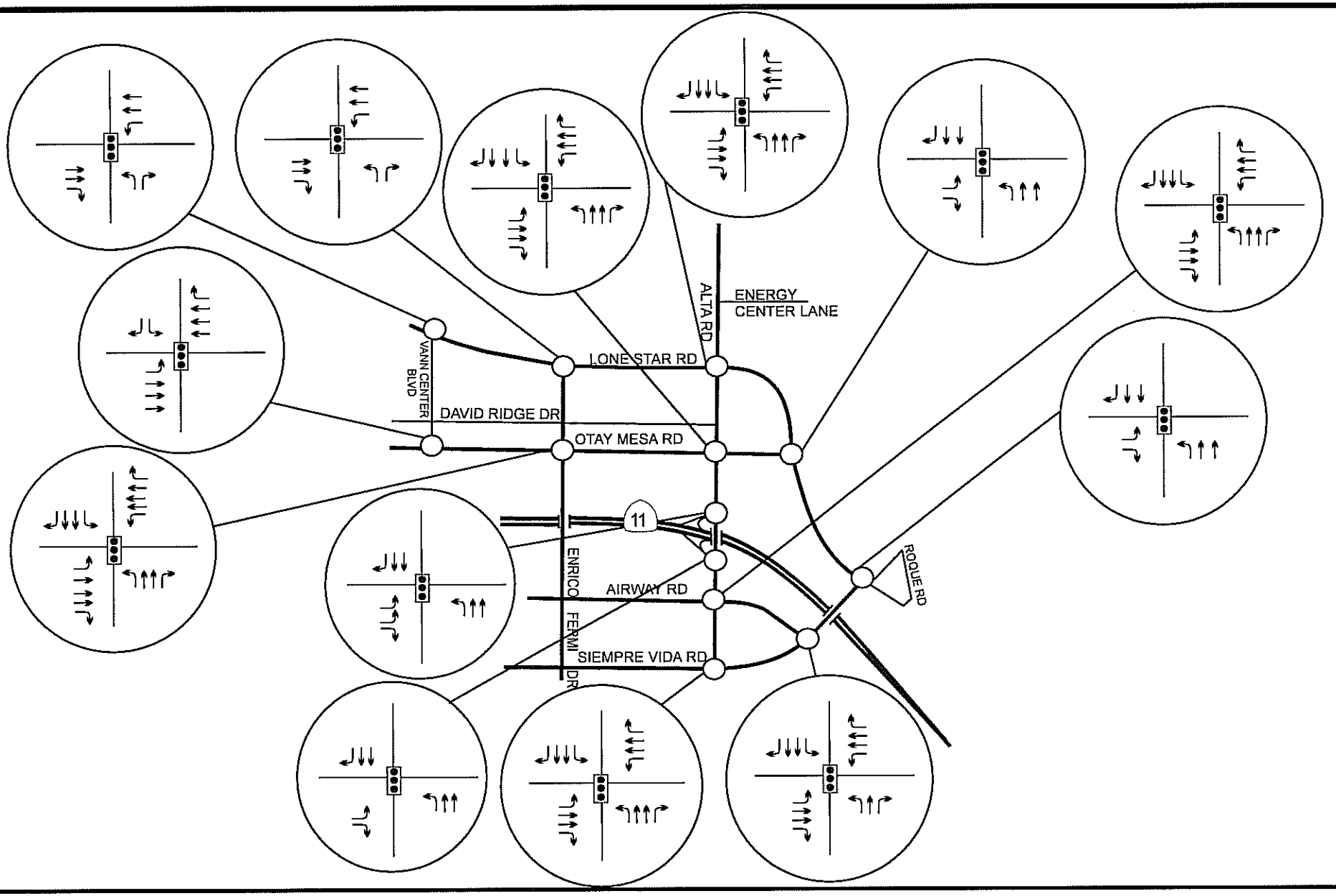


Opening Year (2015) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-57c

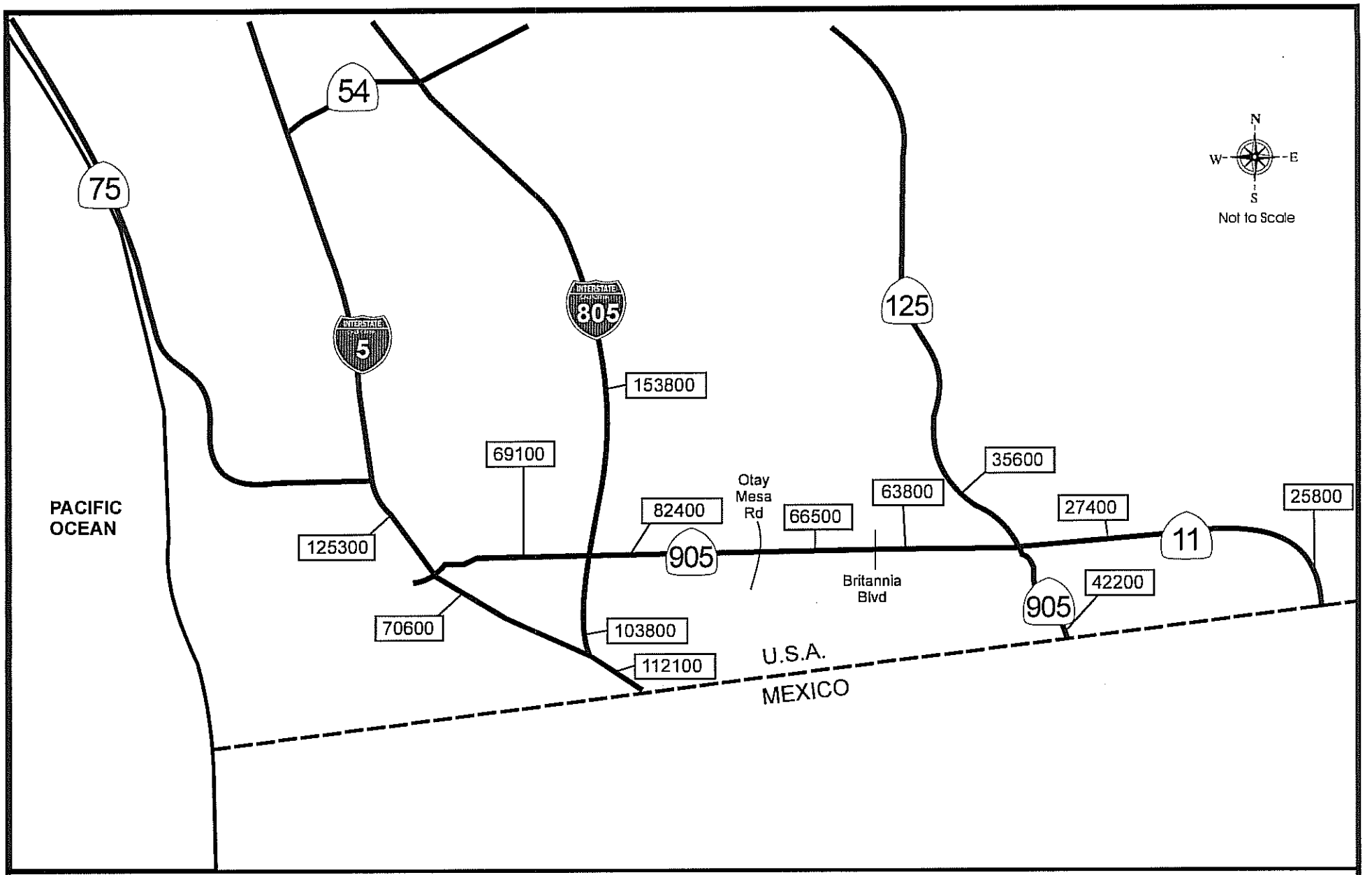


Opening Year (2015) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-57d



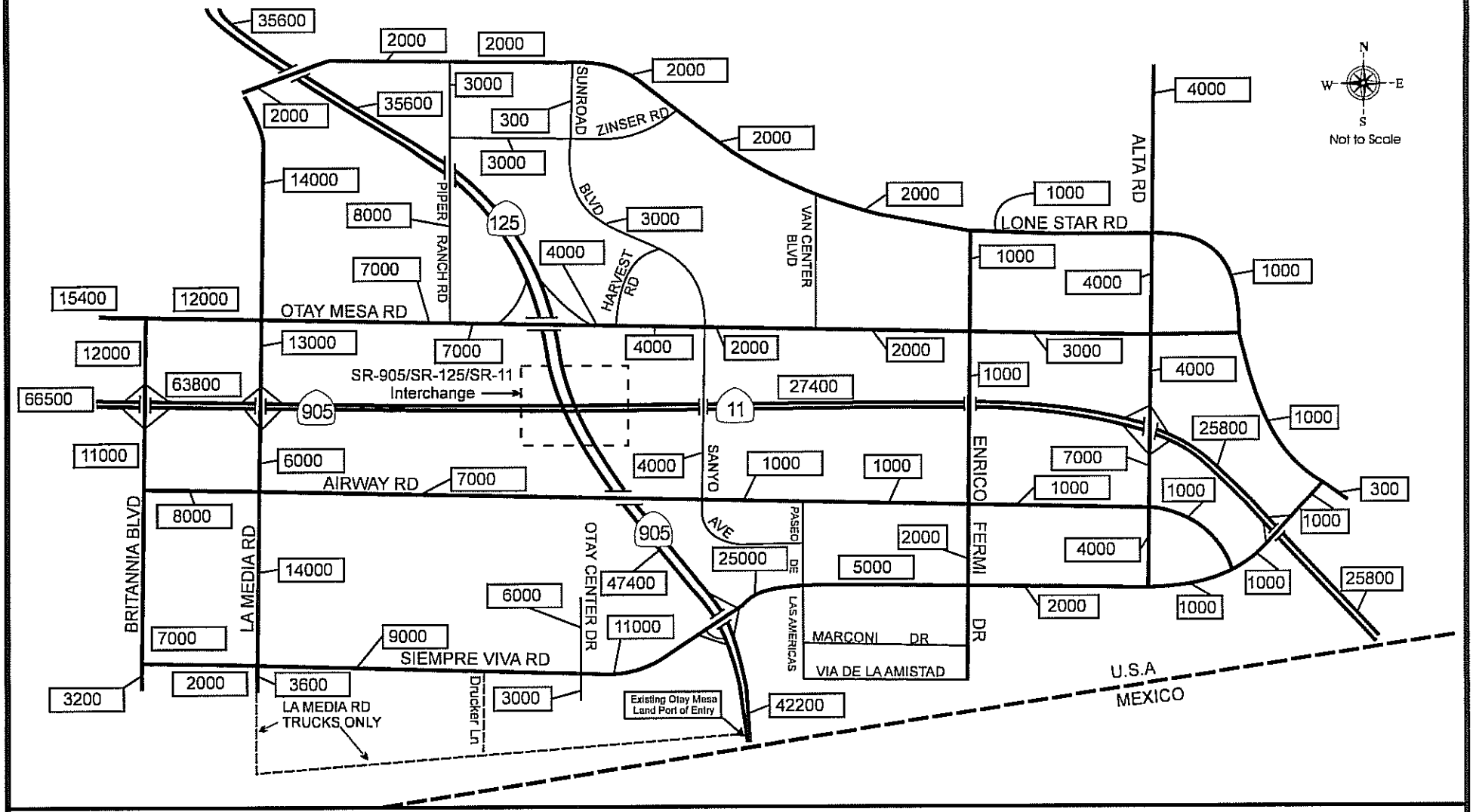
Opening Year (2015) Average Daily Traffic - Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-58a



Opening Year (2015) Average Daily Traffic - Full Interchange / One Interchange Design Variation

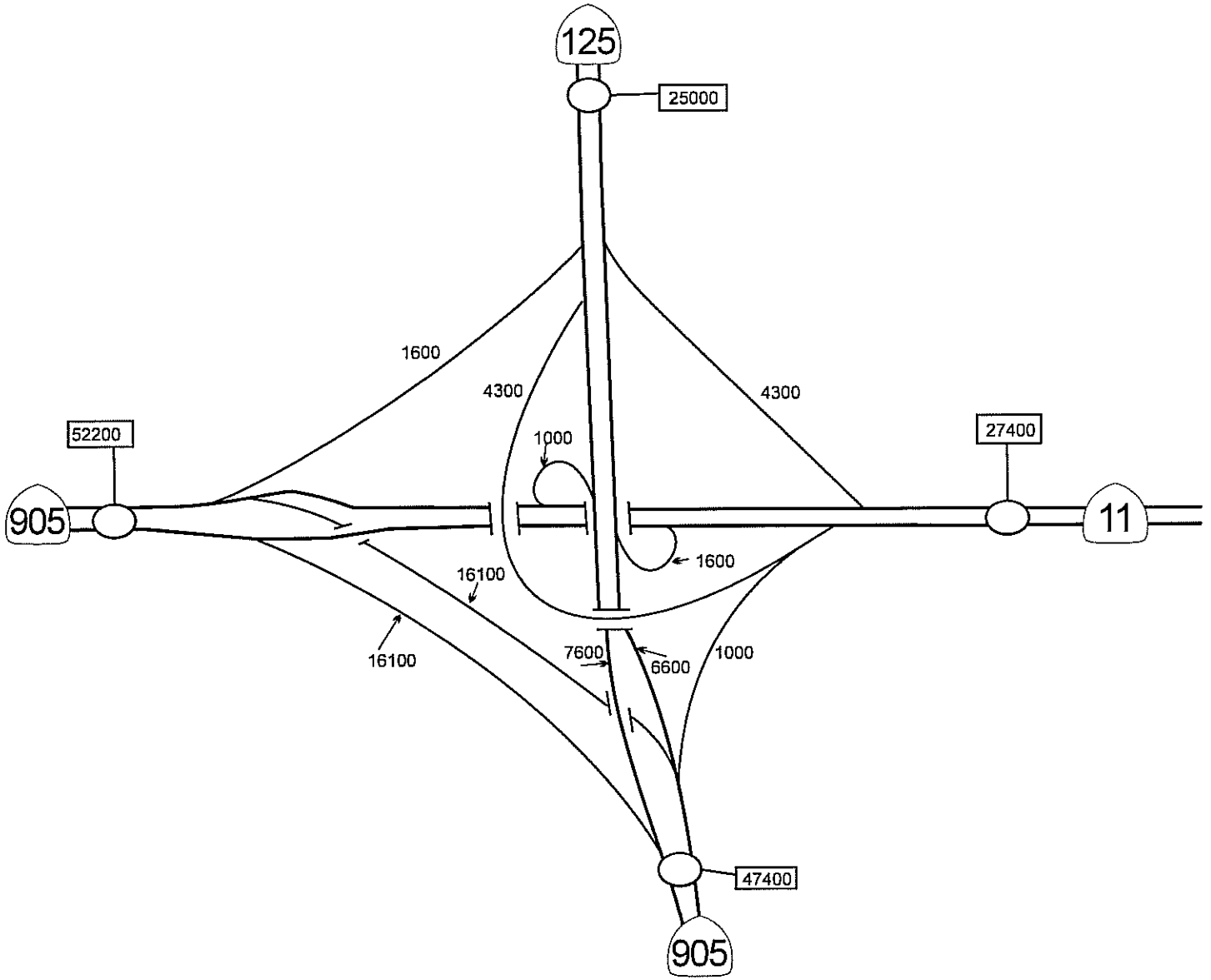
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-58b

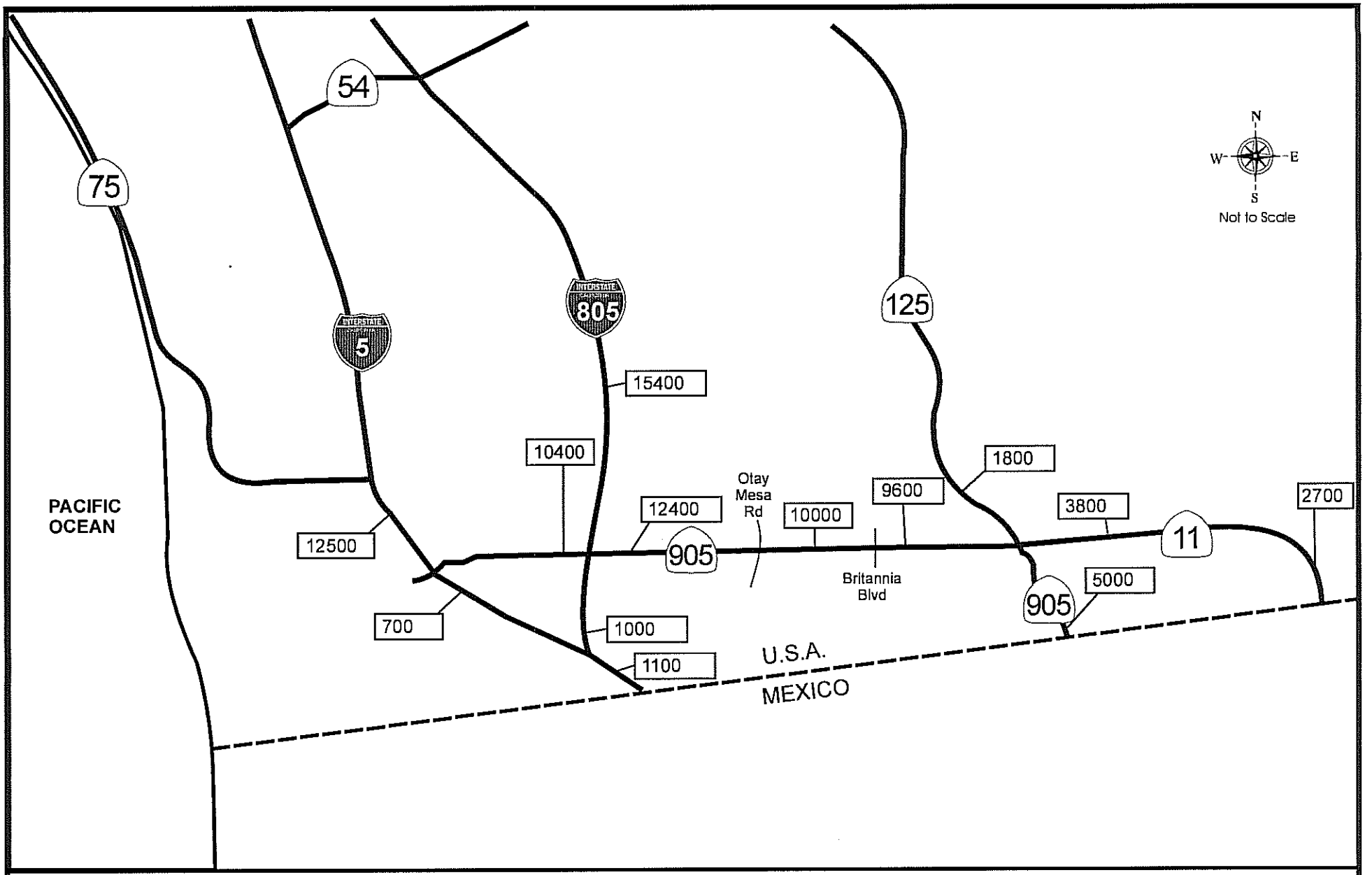


Opening Year (2015) Average Daily Traffic -
Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 4-58c



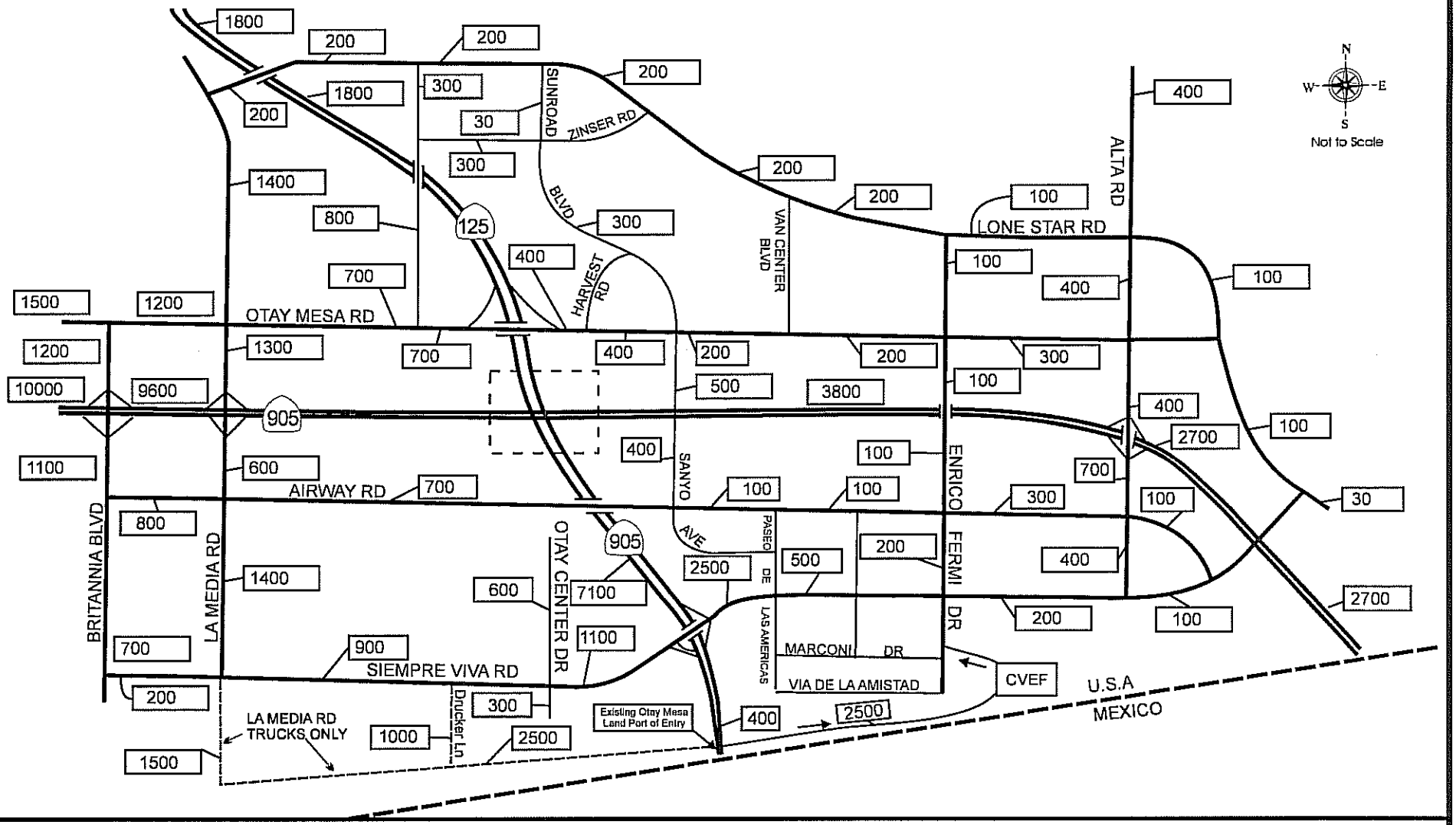
Opening Year (2015) Daily Truck Trips - Full Interchange/One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-59a



Opening Year (2015) Daily Truck Trips - Full Interchange/One Interchange Design Variation

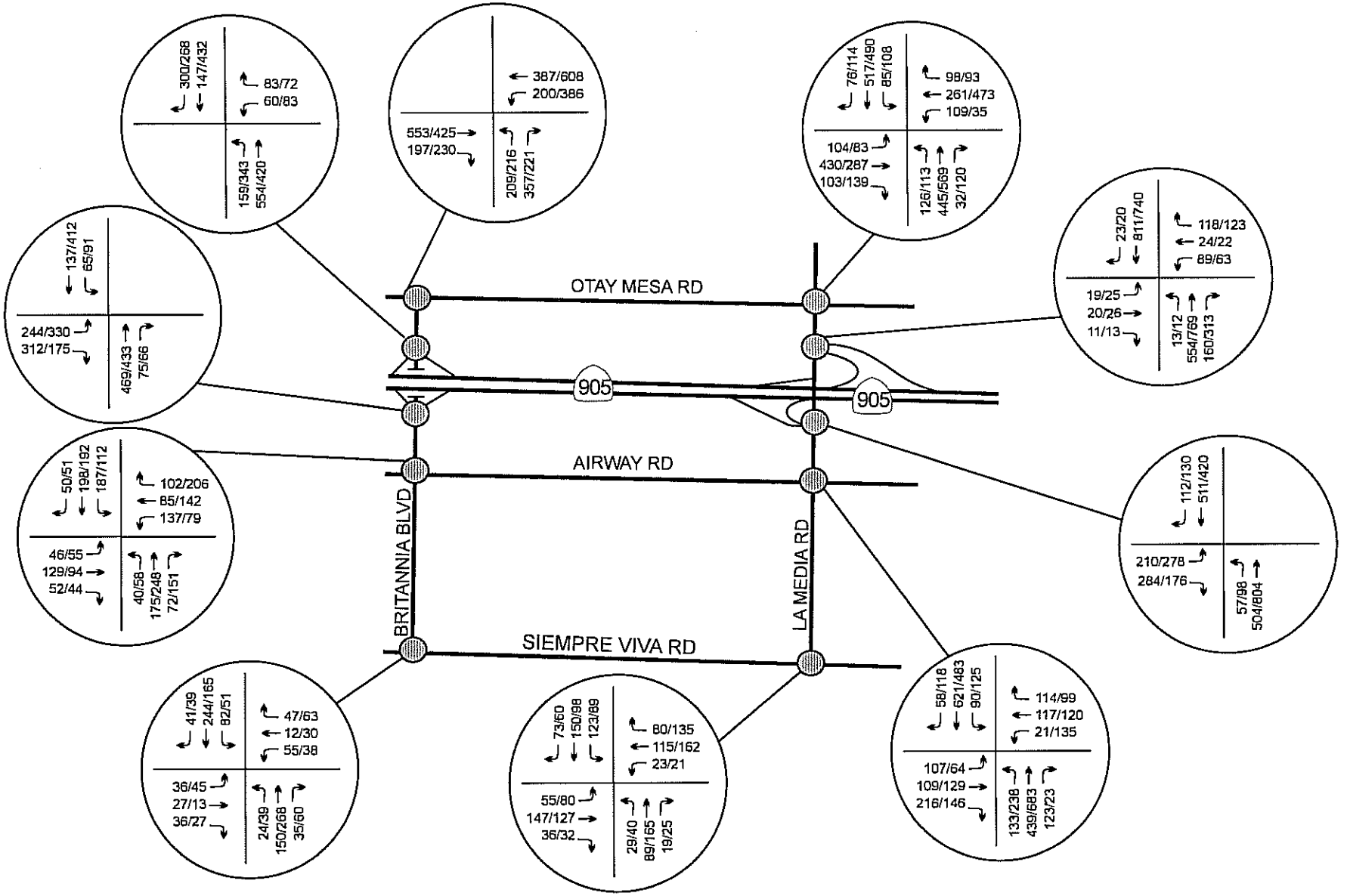
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-59b

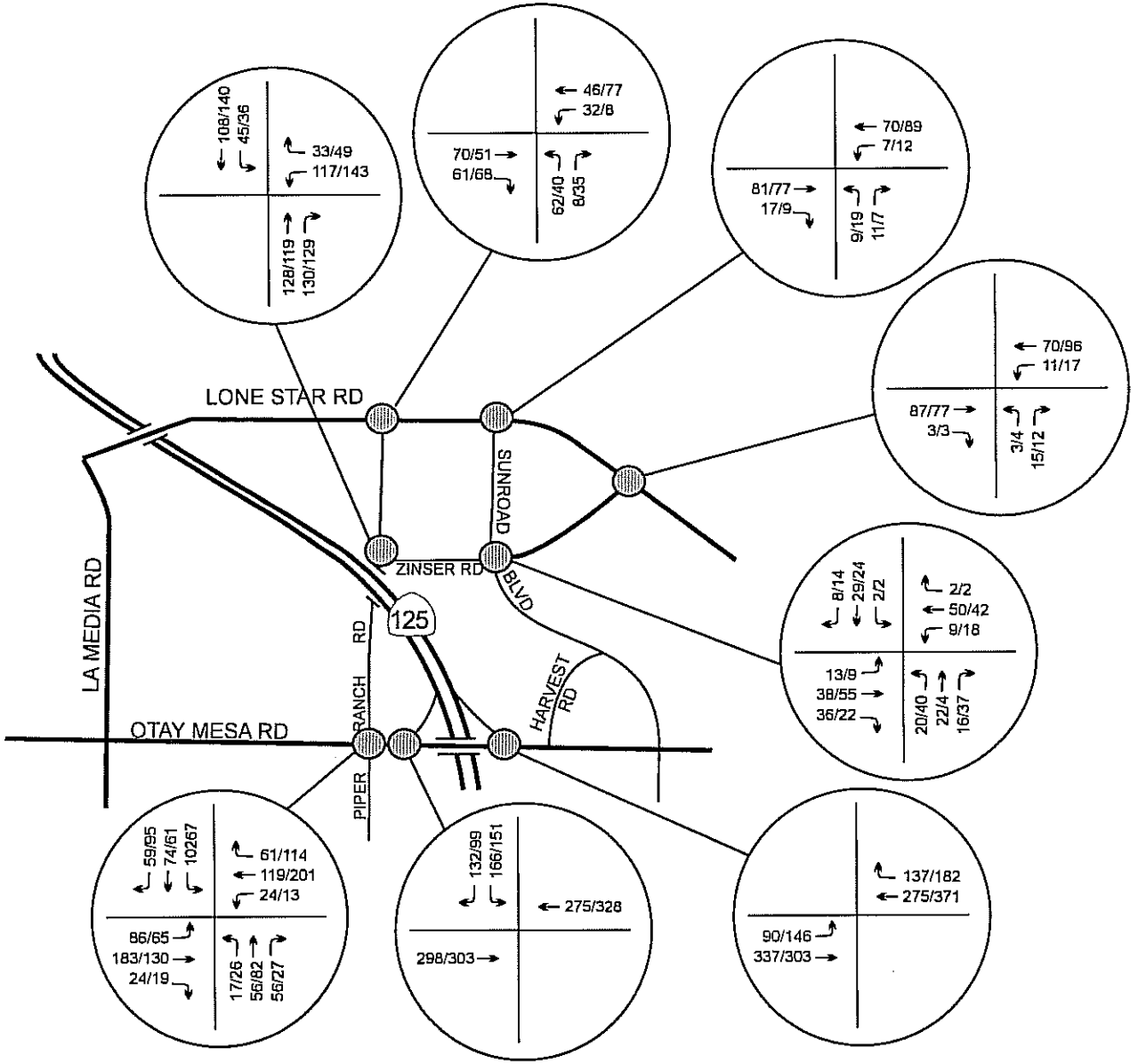


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-60a

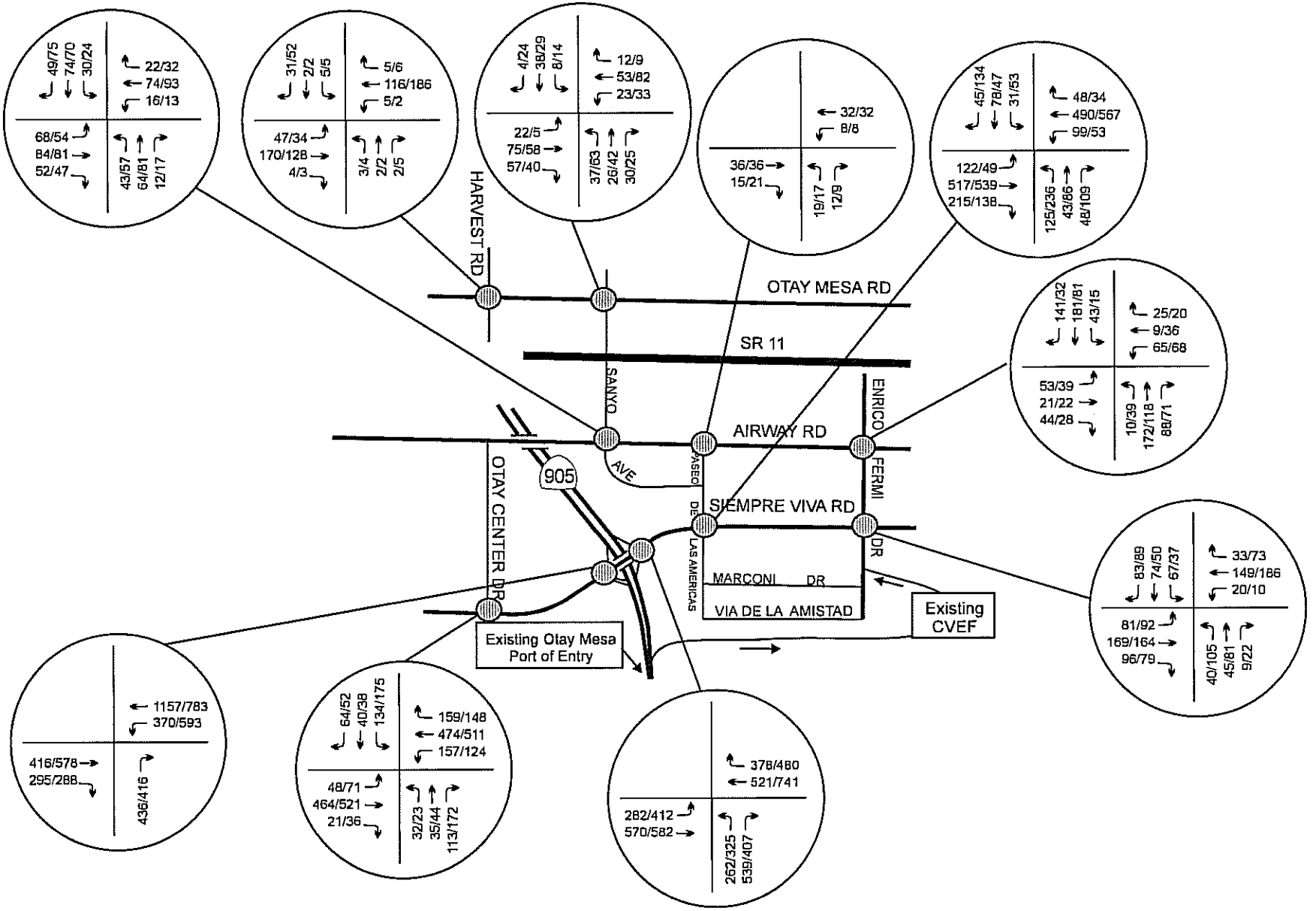


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-60b

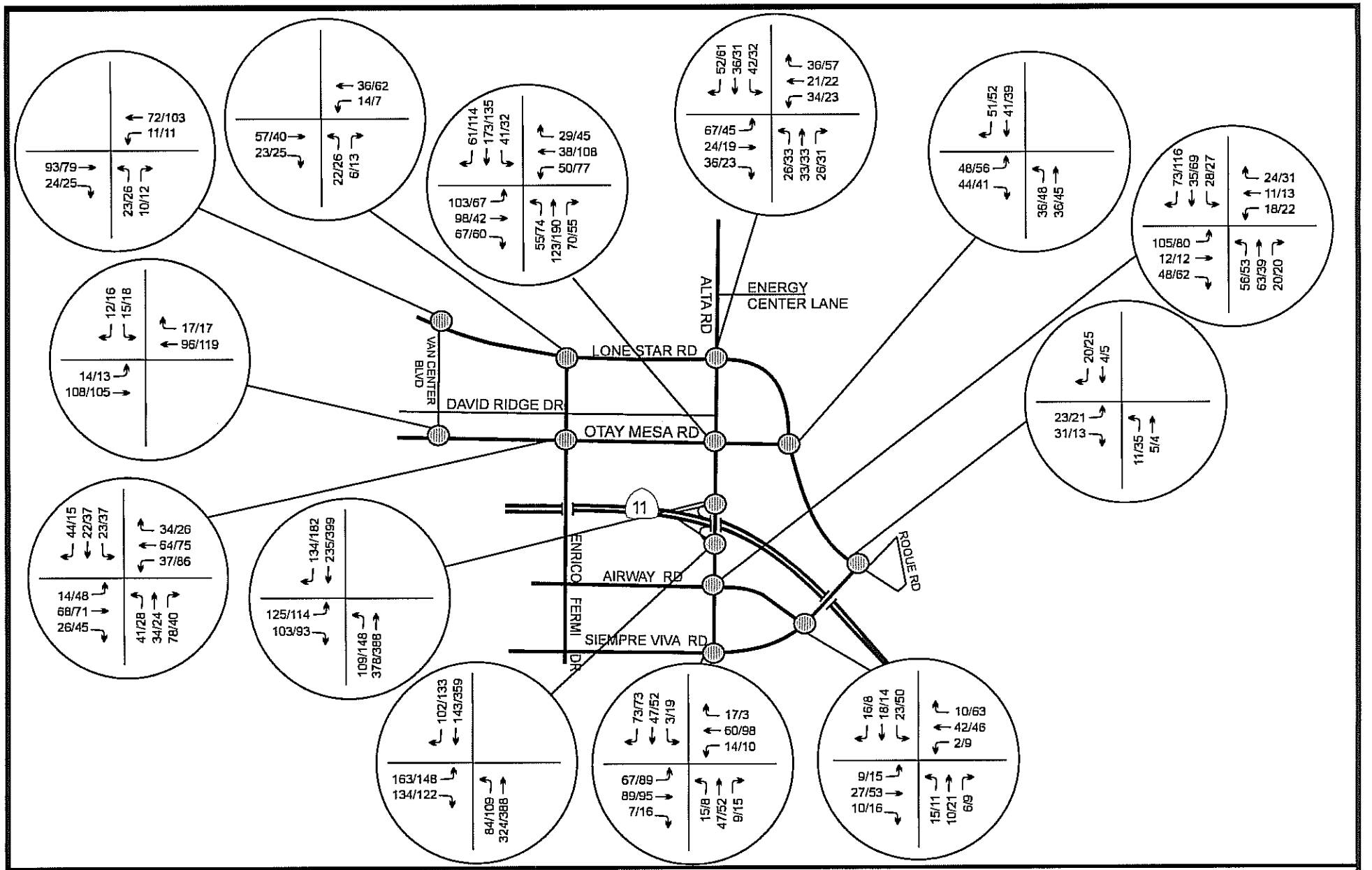


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-60c

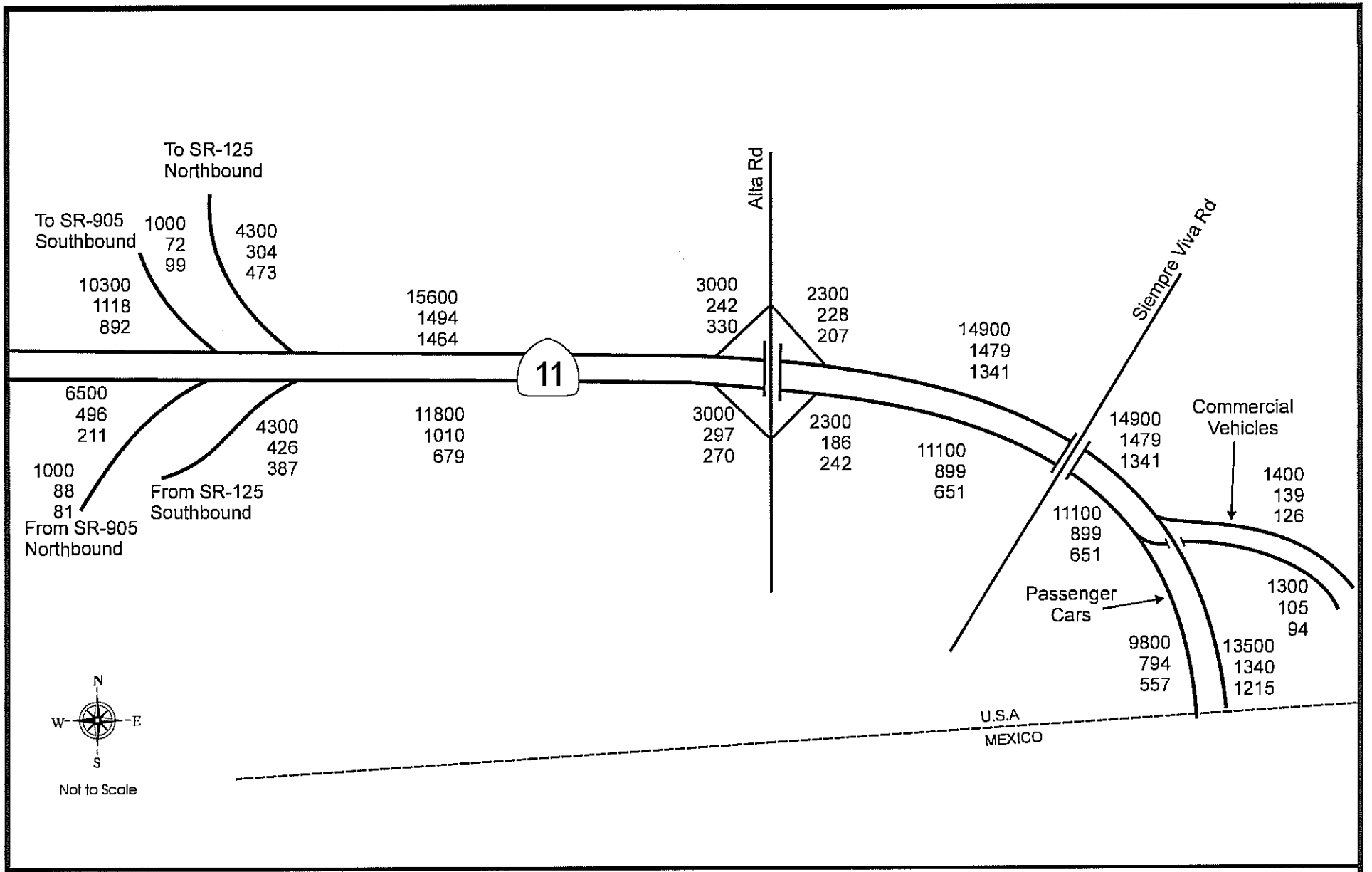


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-60d

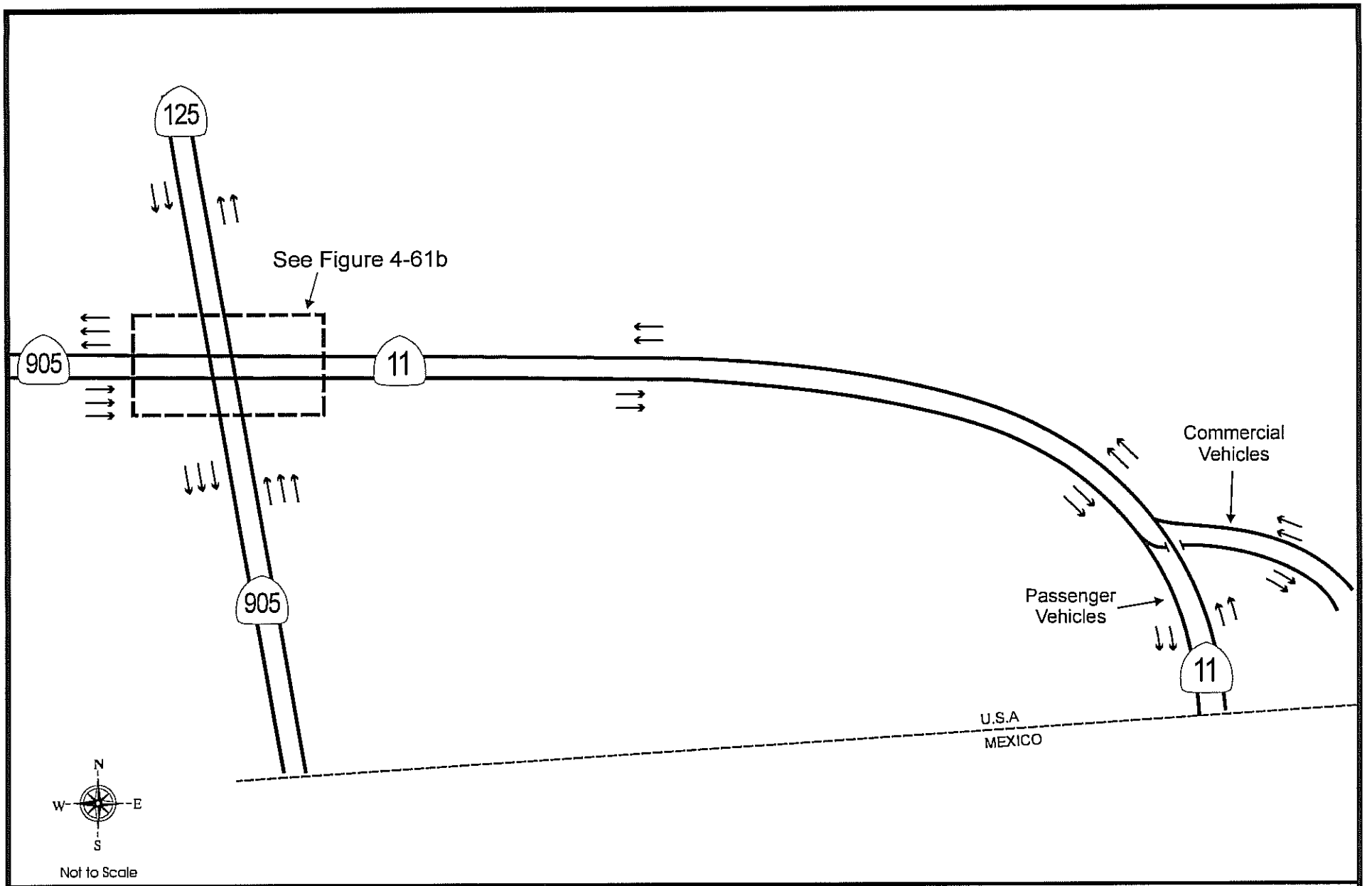


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - Full Interchange / One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-60e

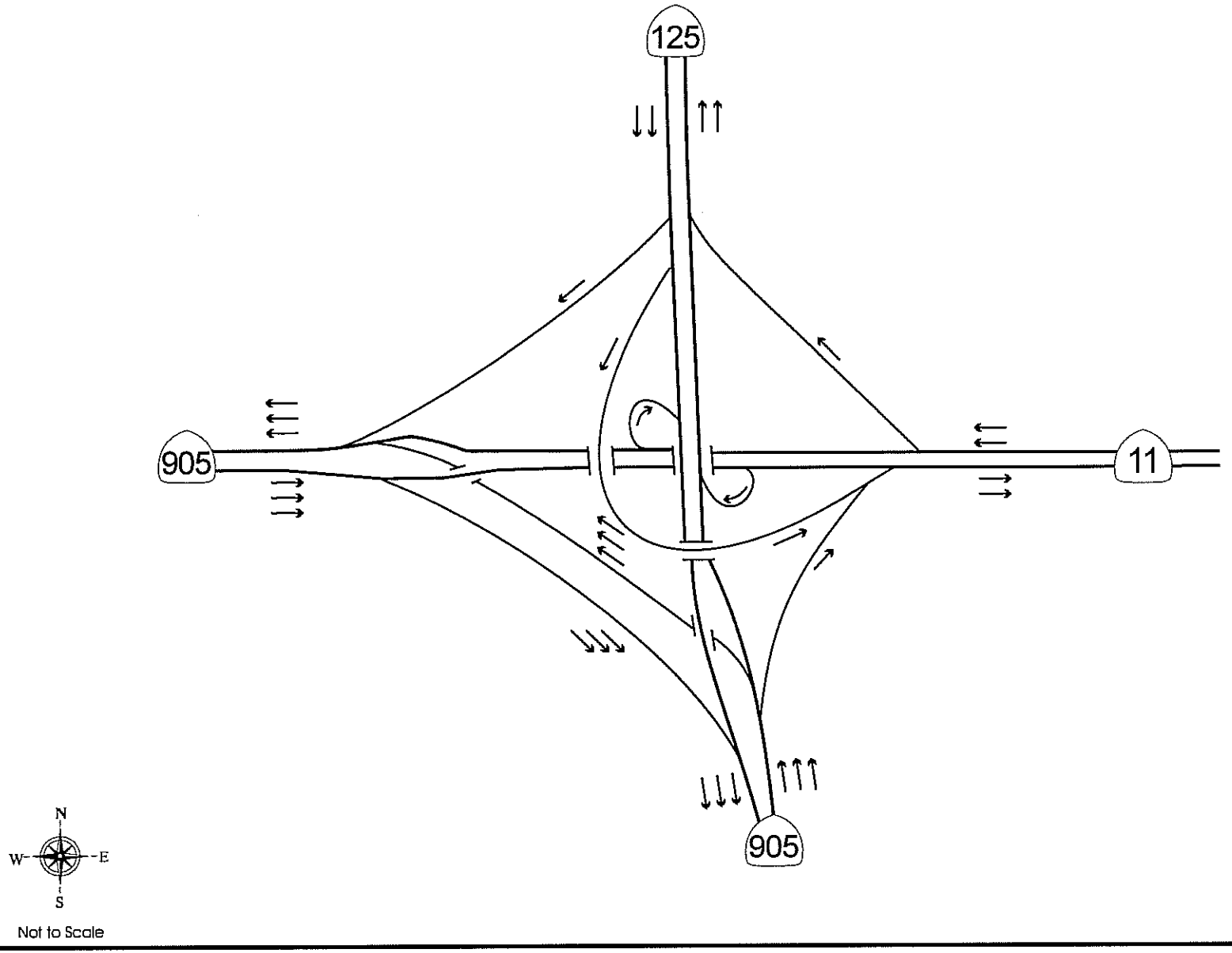


Opening Year (2015) SR-11 Lane Geometry
Full Interchange/No Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 4-61a

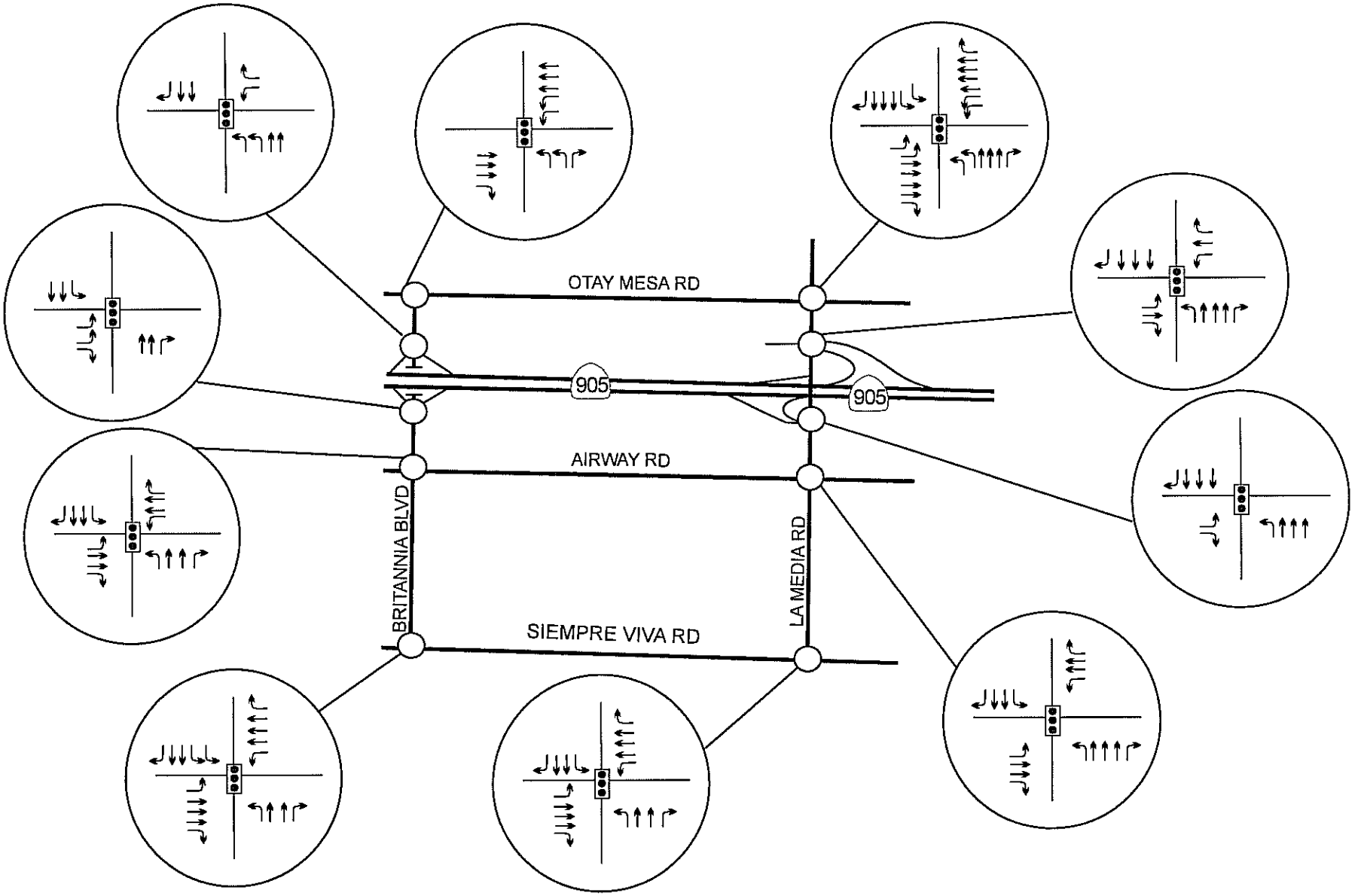


Opening Year (2015) SR-11 Lane Geometry
Full Interchange/No Interchange Design Variation

Legend

← Number of Lanes

Figure 4-61b

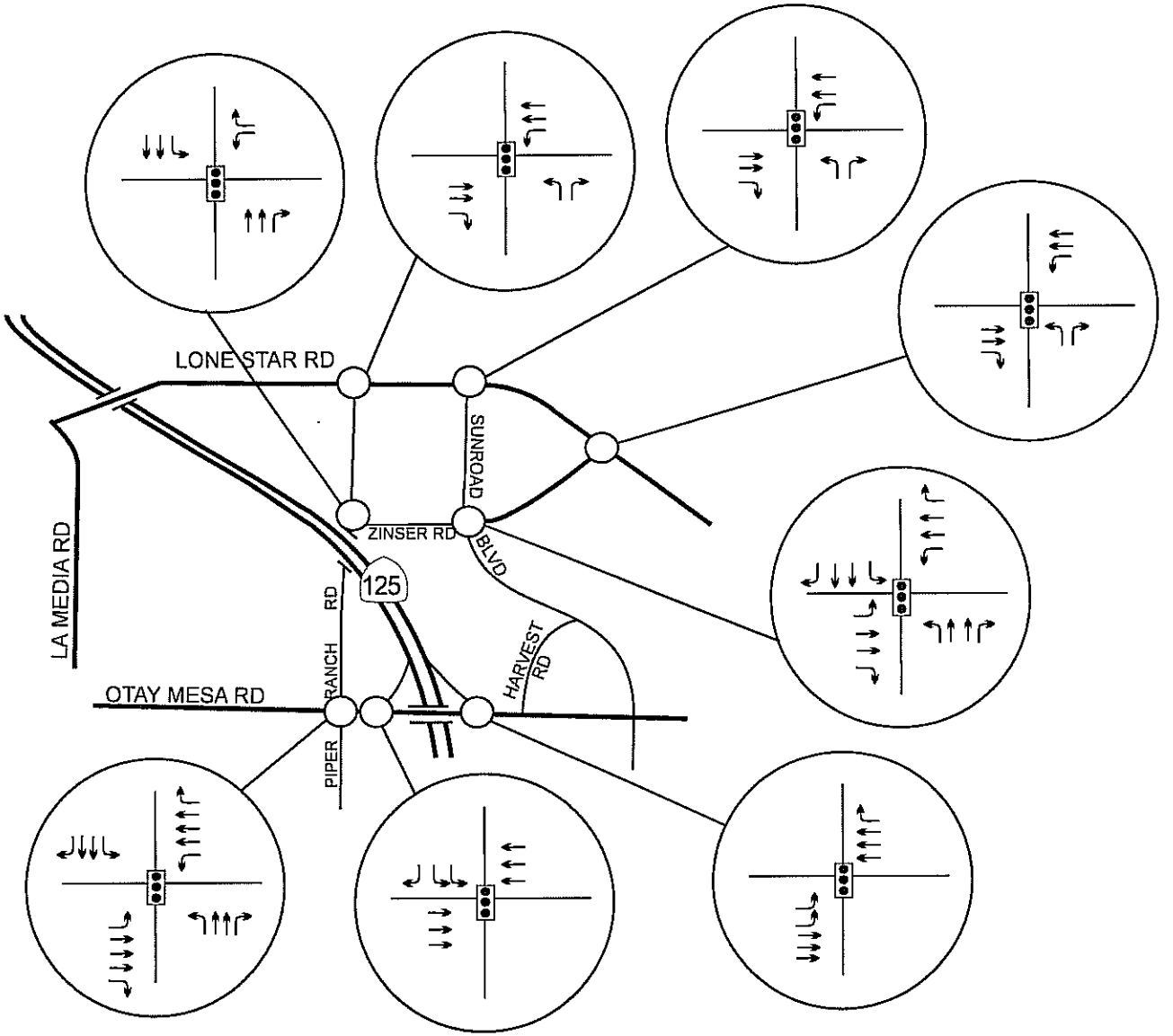


Opening Year (2015) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-62a

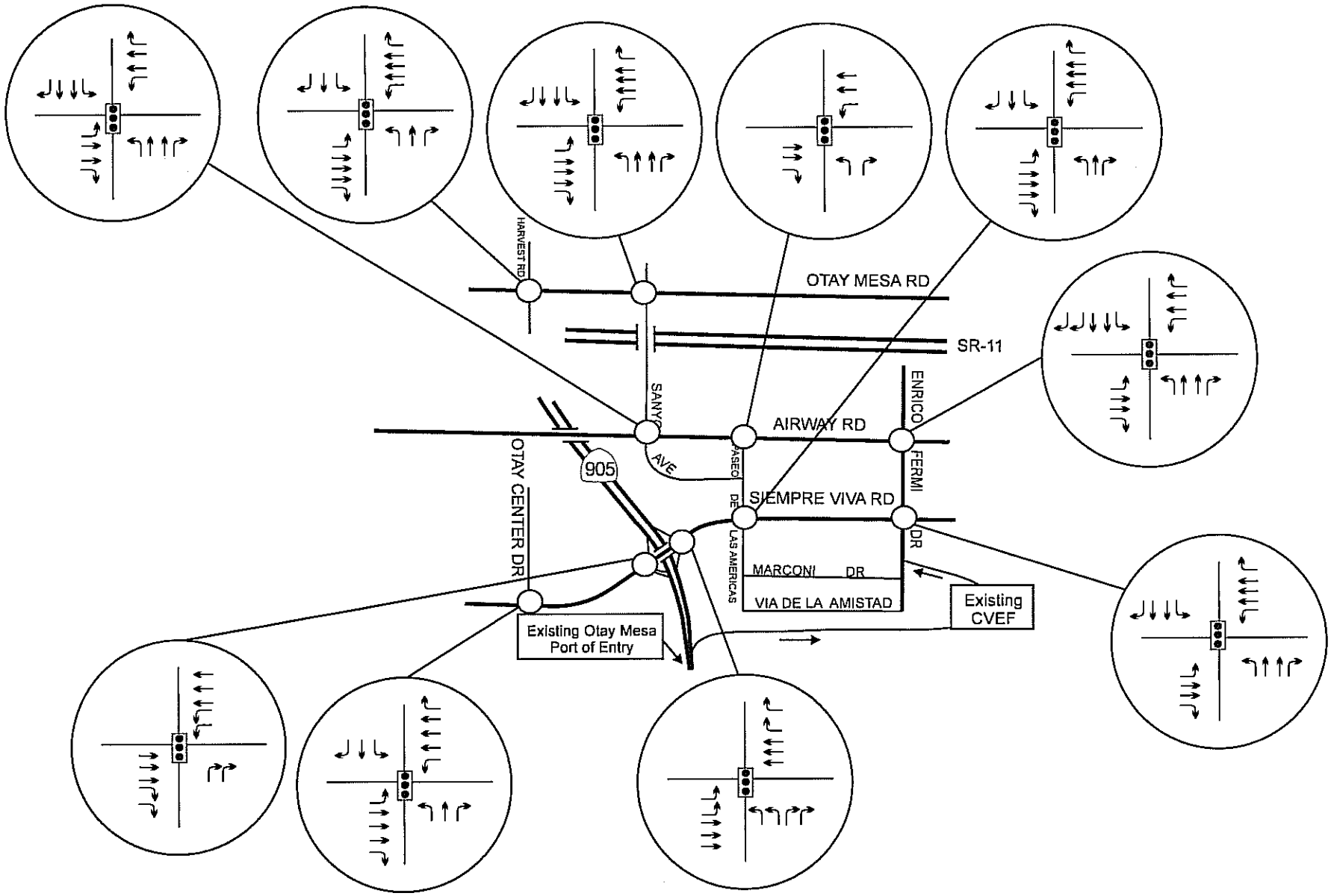


Opening Year (2015) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-62b

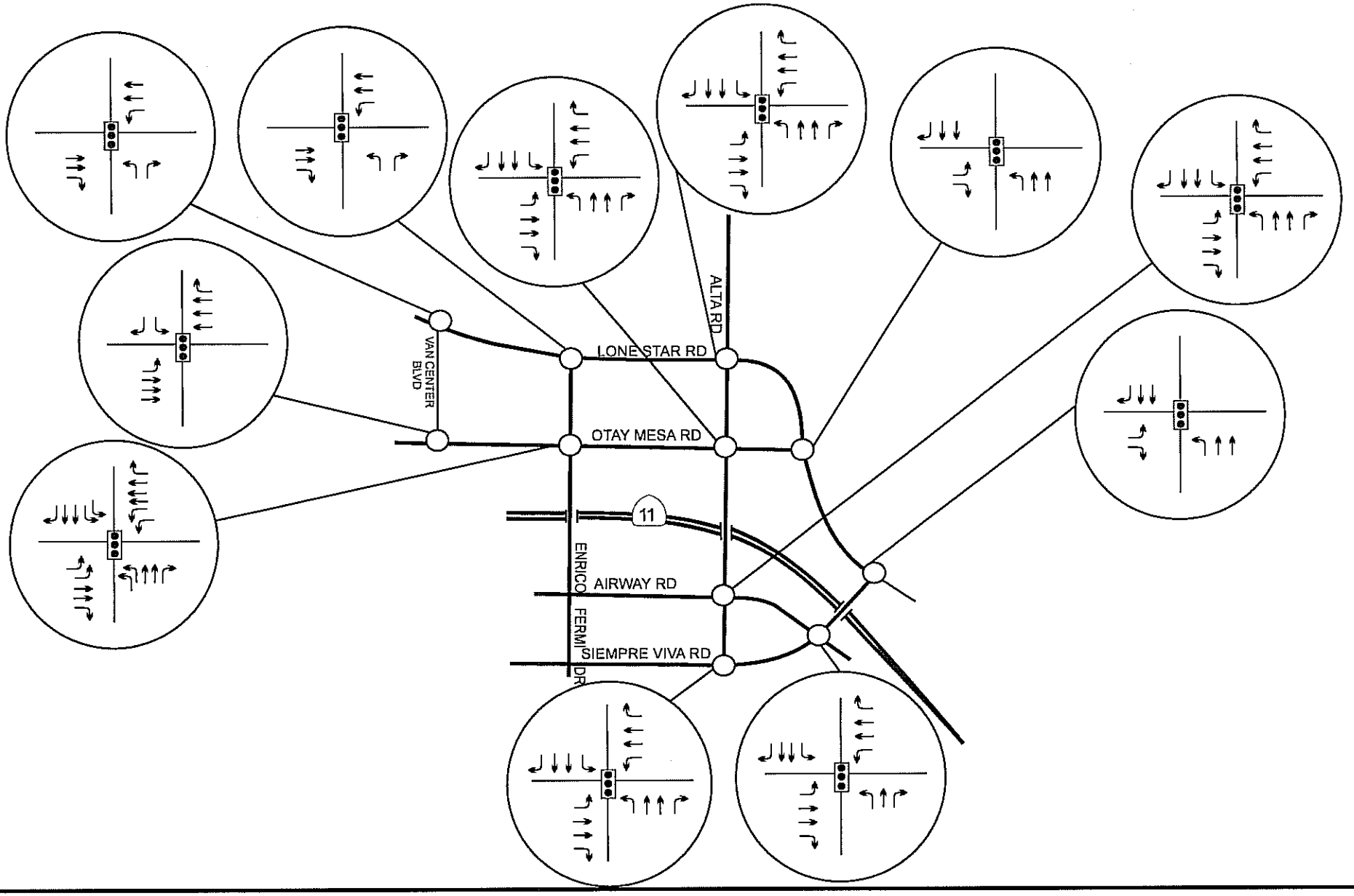


Opening Year (2015) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-62c

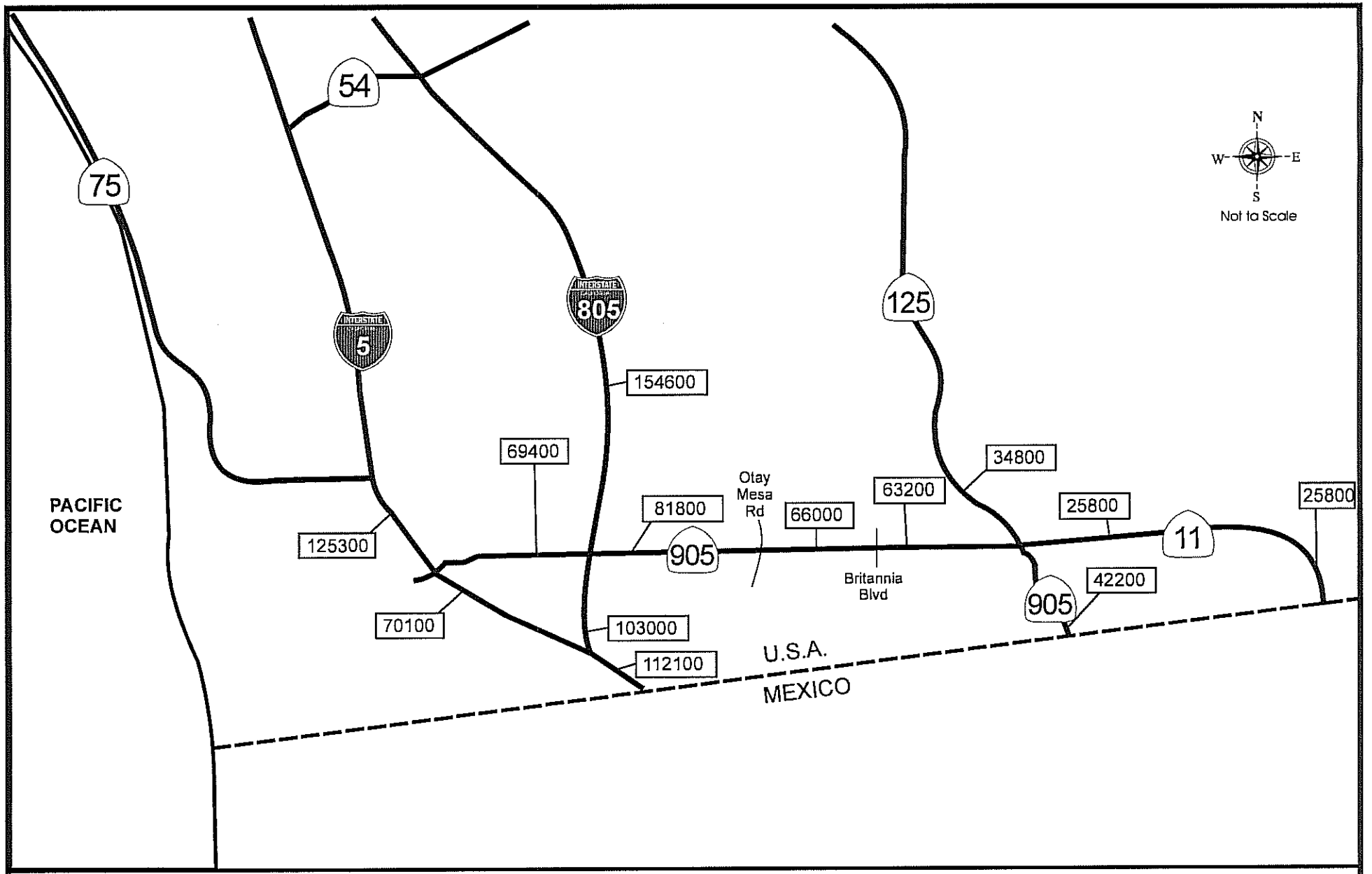


Opening Year (2015) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 4-62d



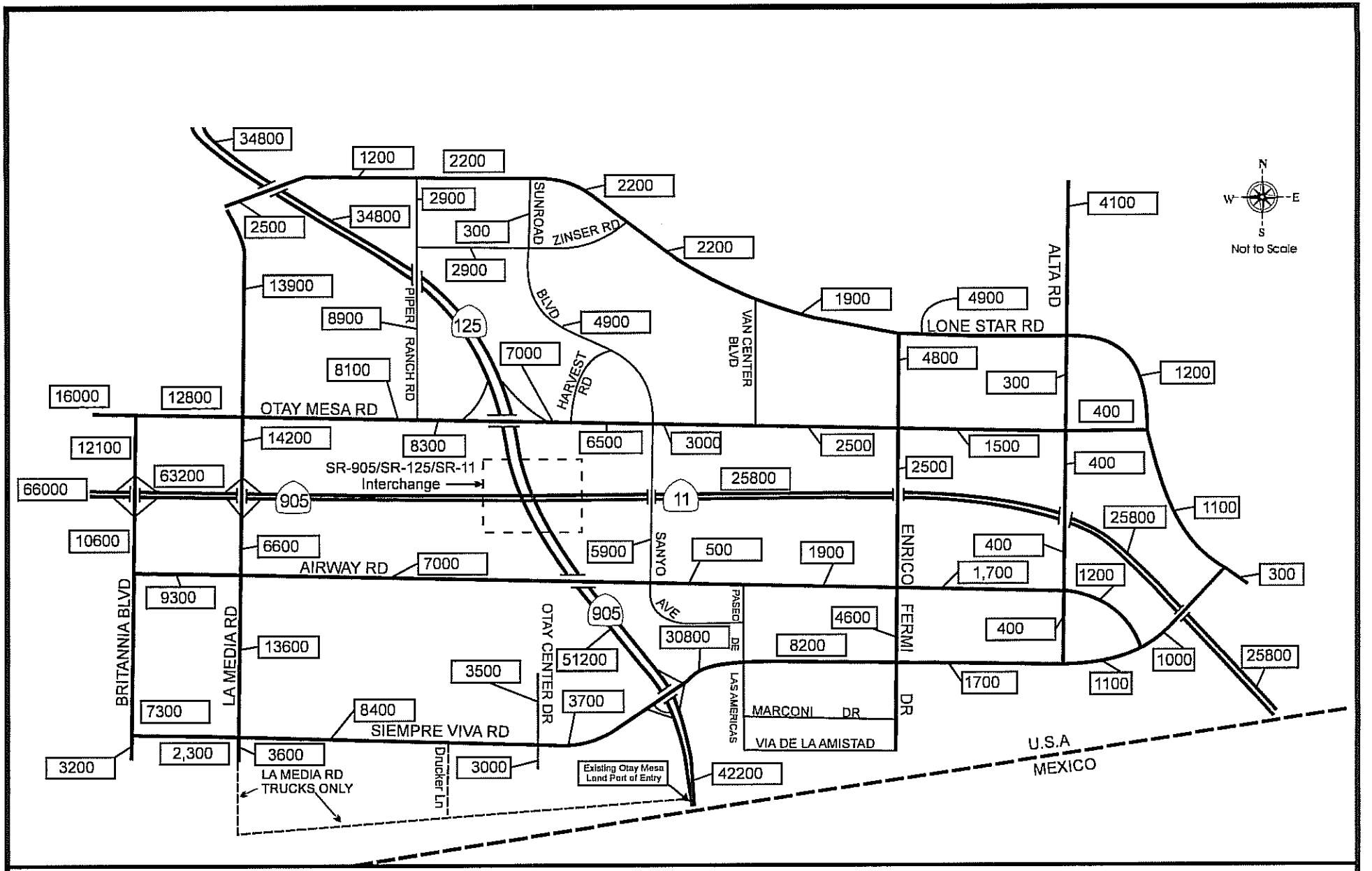
Opening Year (2015) Average Daily Traffic - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-63a



Opening Year (2015) Average Daily Traffic - Full Interchange/No Interchange Design Variation

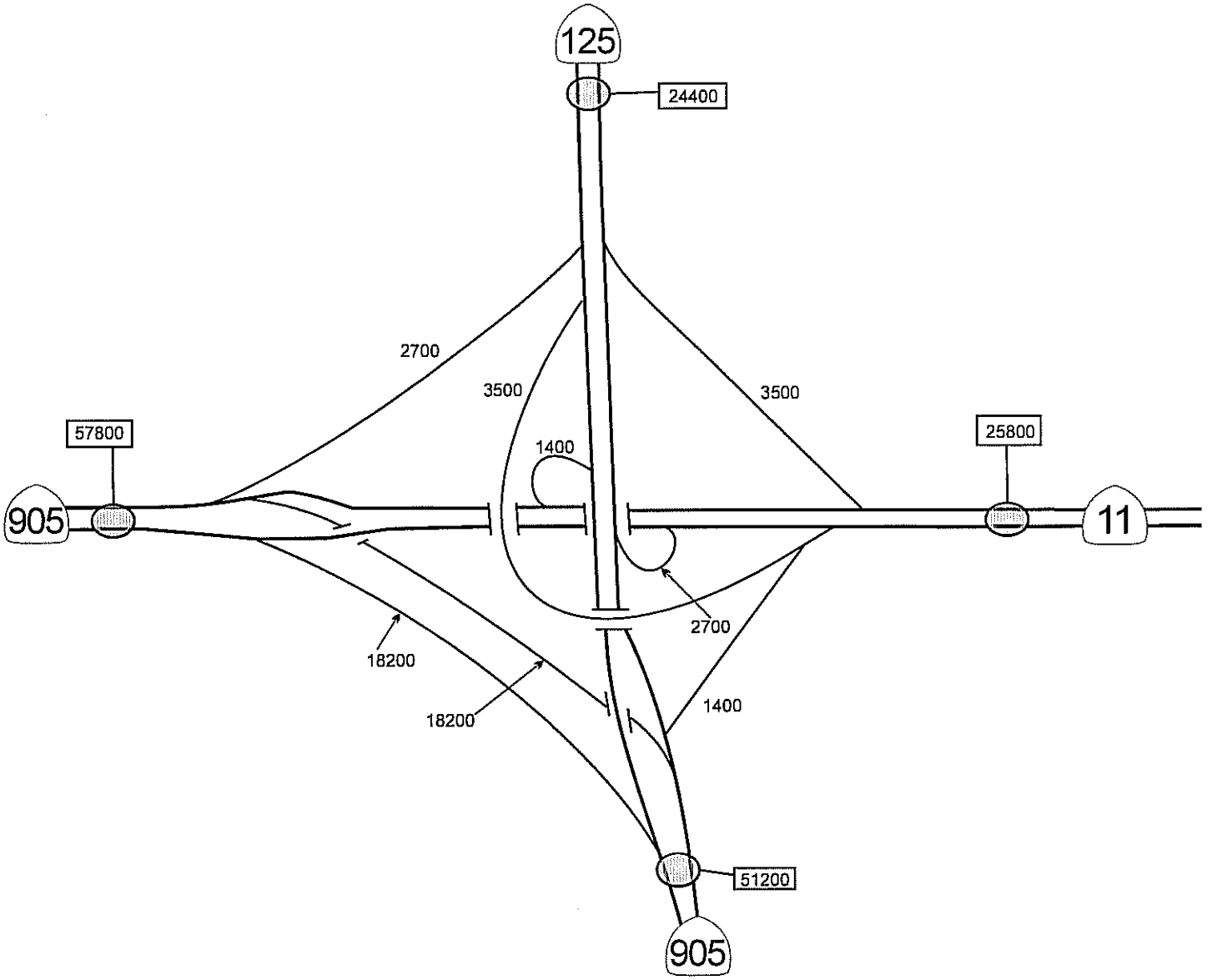
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-63b

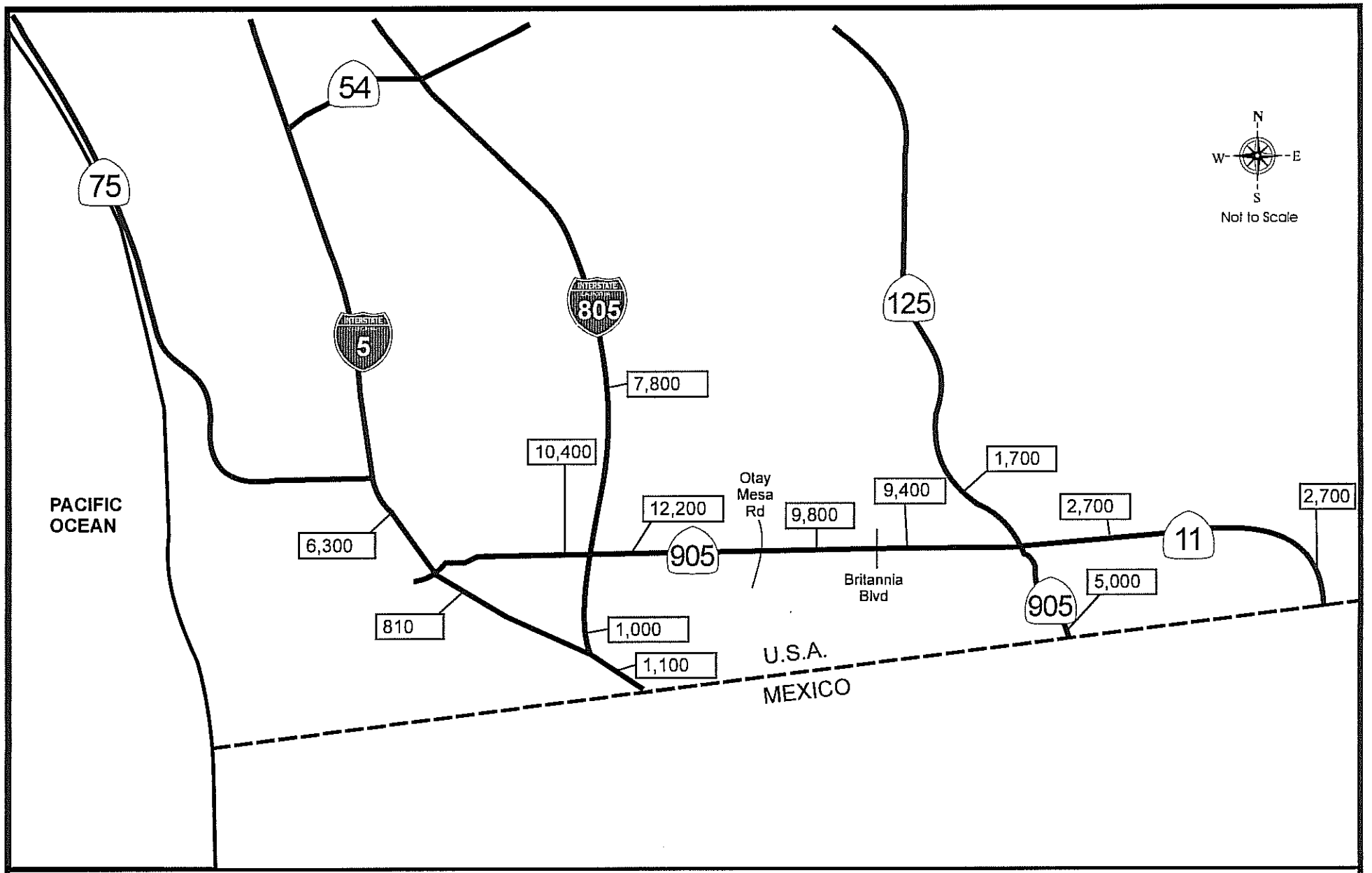


Opening Year (2015) Average Daily Traffic - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 4-63c



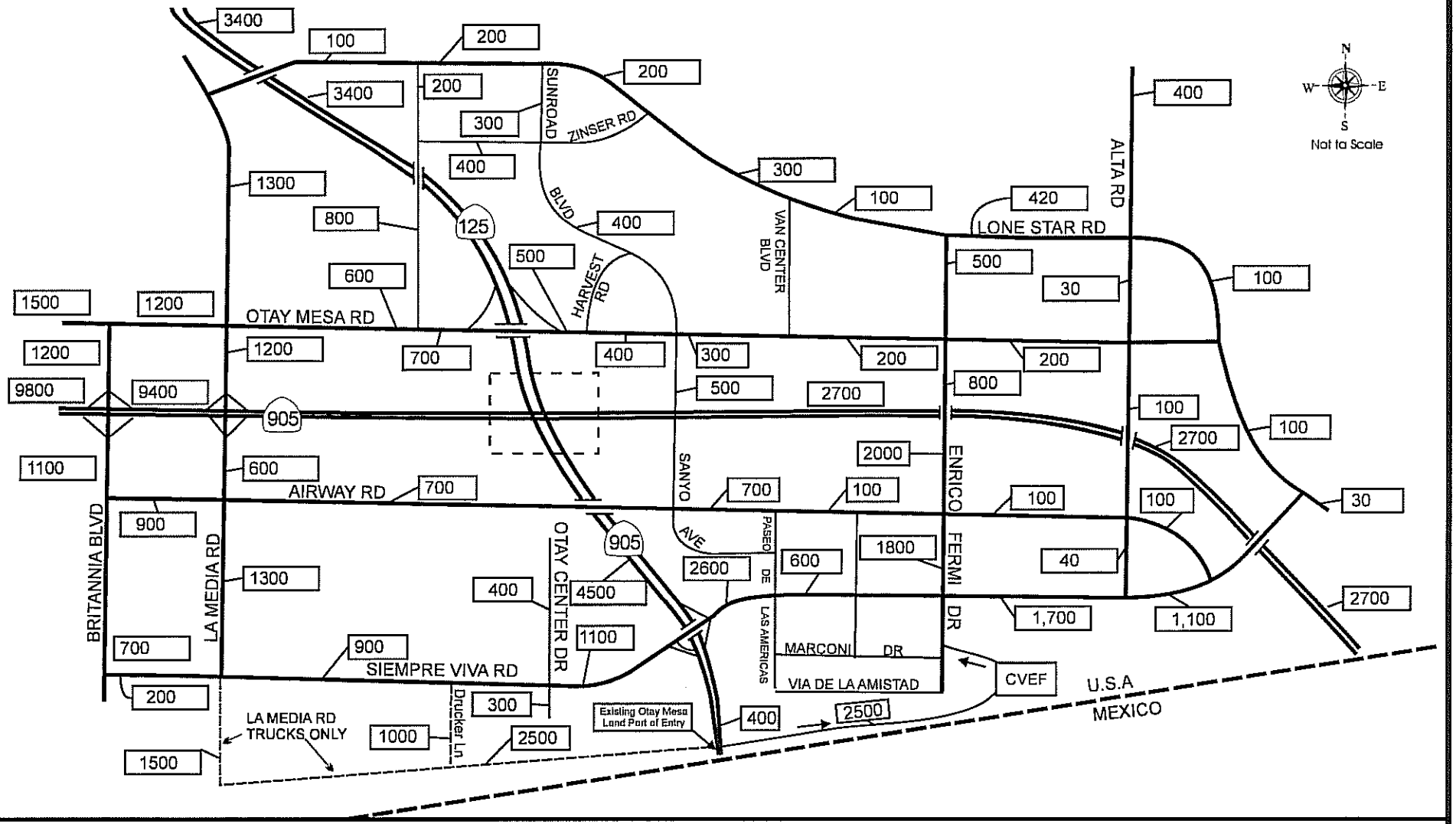
Opening Year (2015) Daily Truck Trips - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-64a



Opening Year (2015) Daily Truck Trips - Full Interchange/No Interchange Design Variation

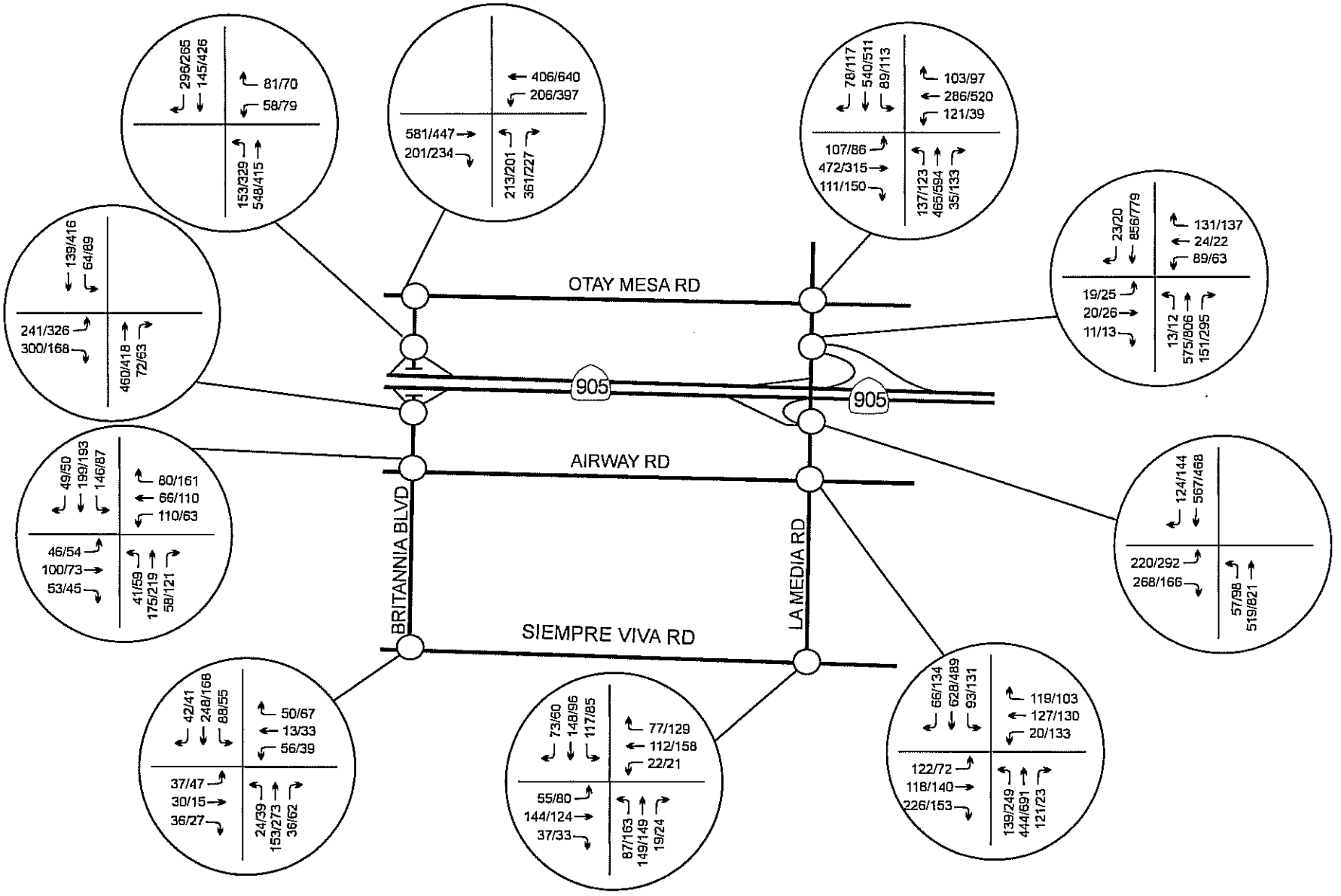
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-64b

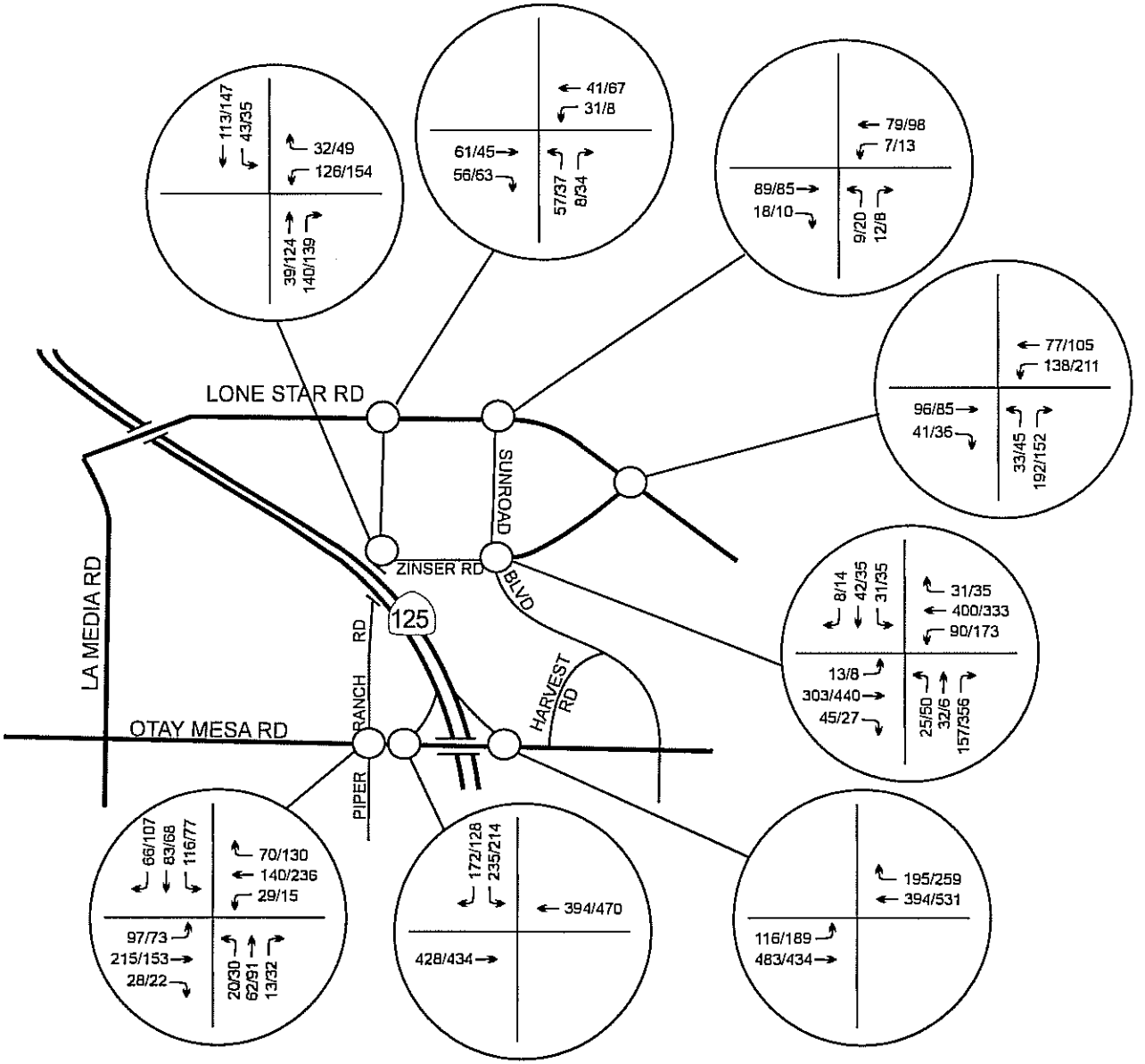


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-65a

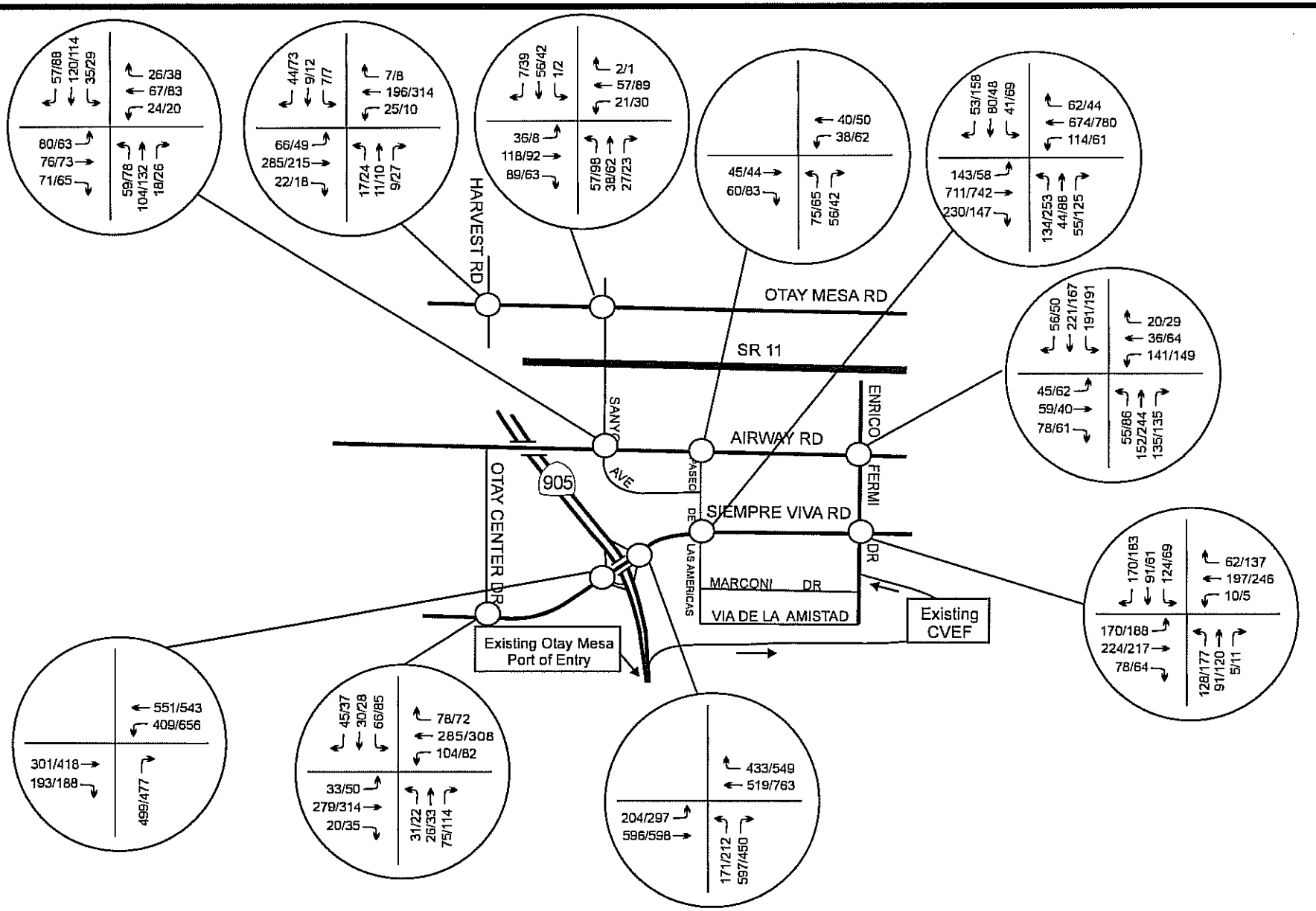


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-65b

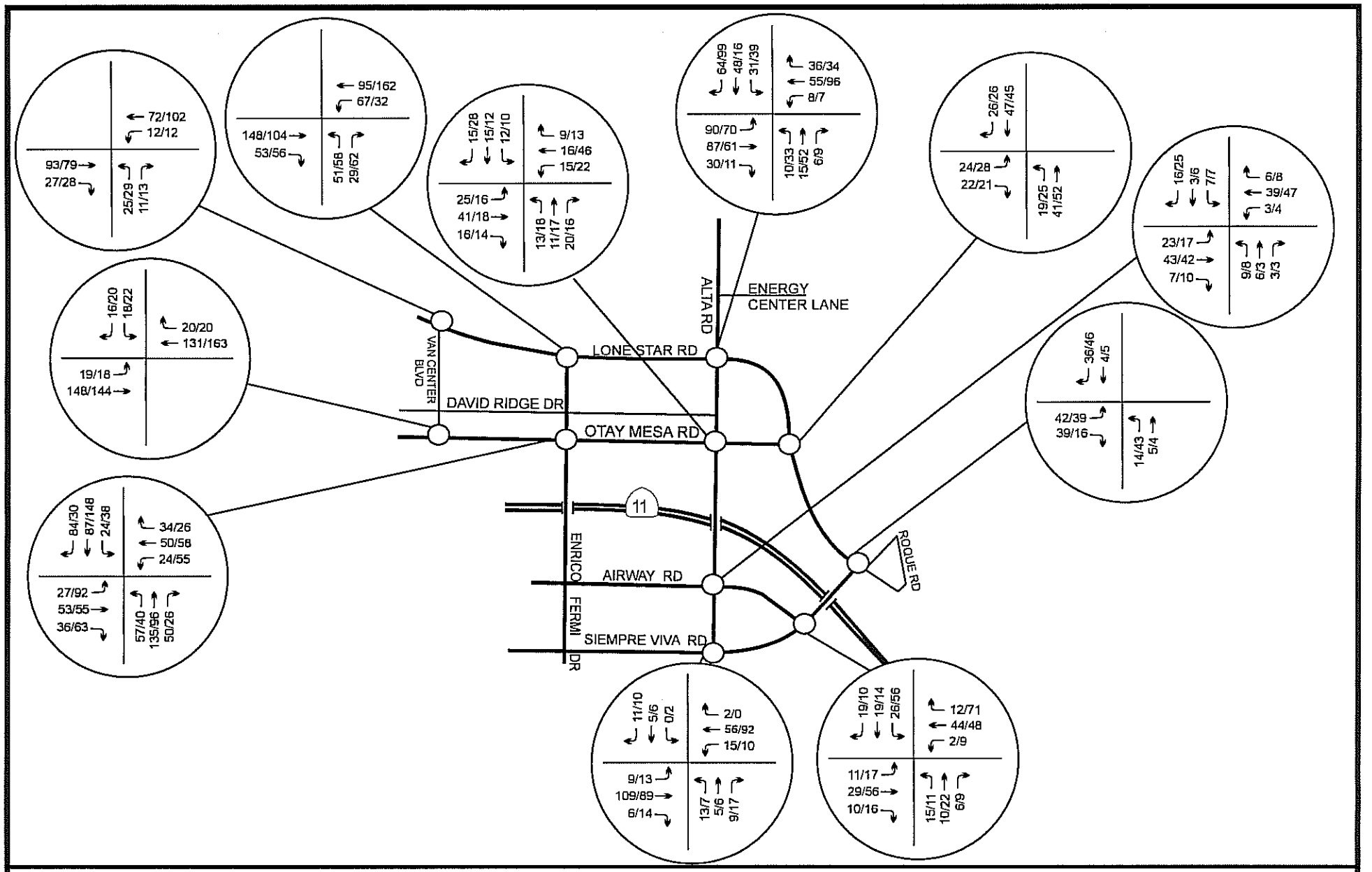


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-65c

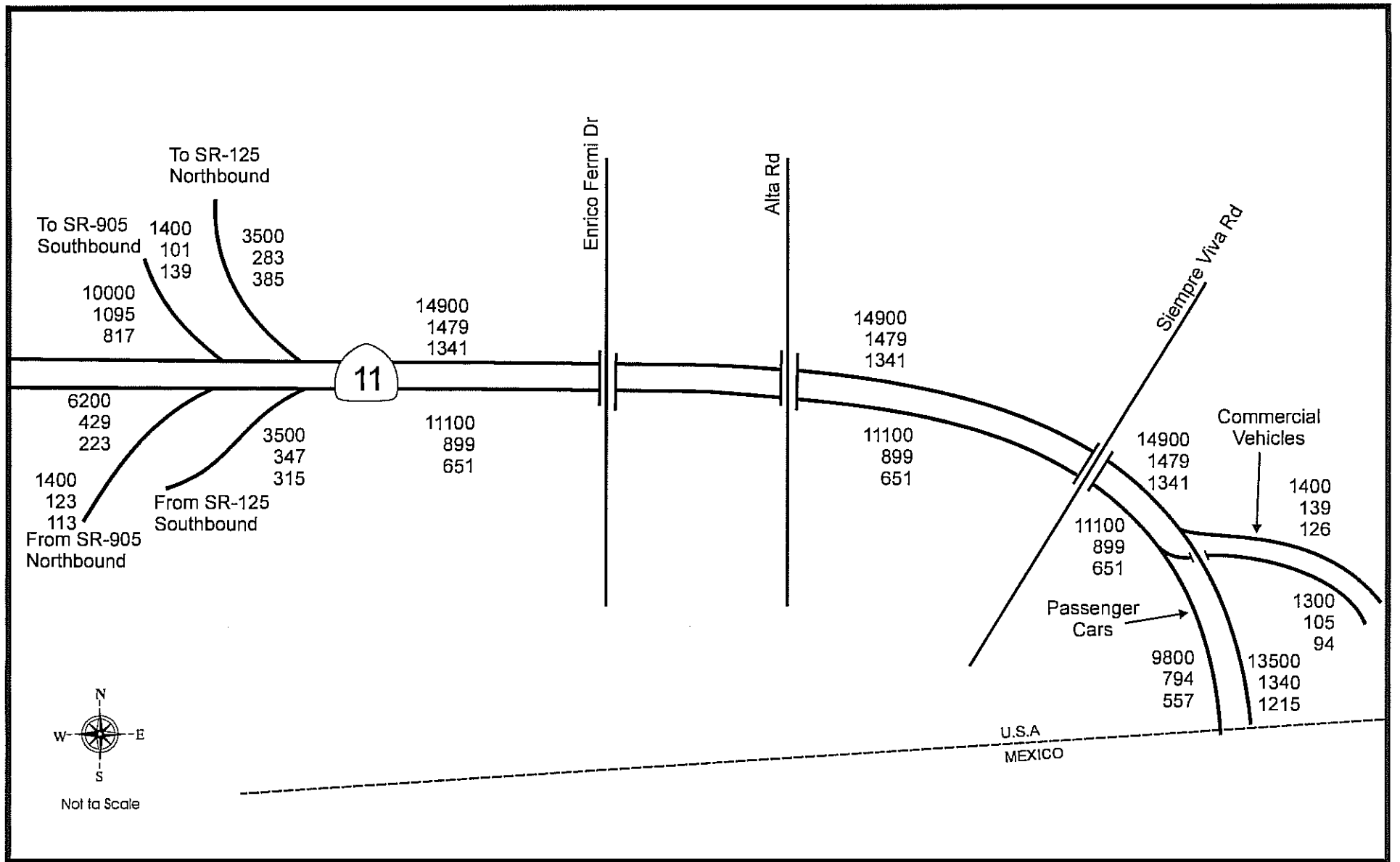


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-65d

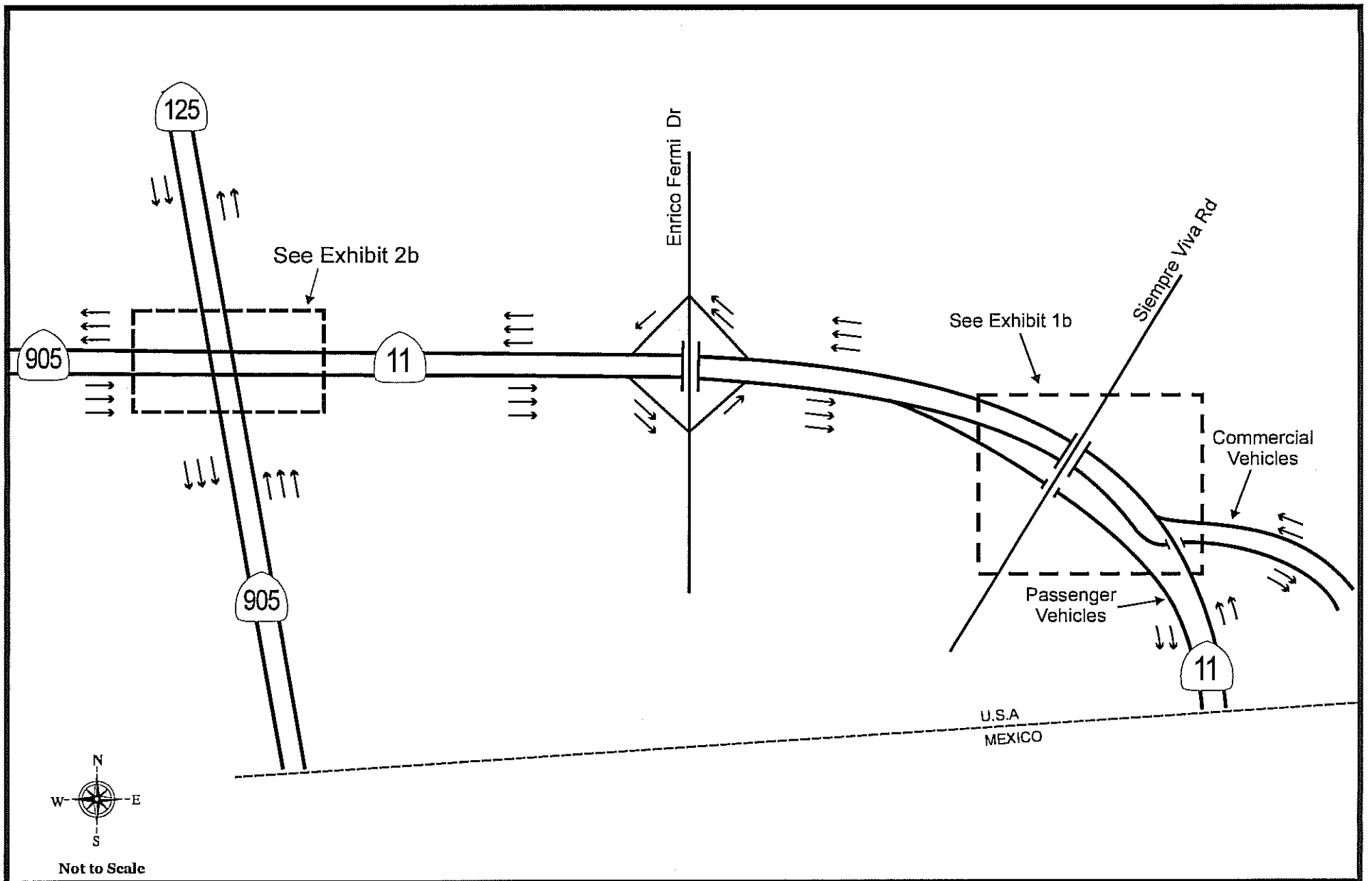


Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps
Full Interchange/No Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-65e

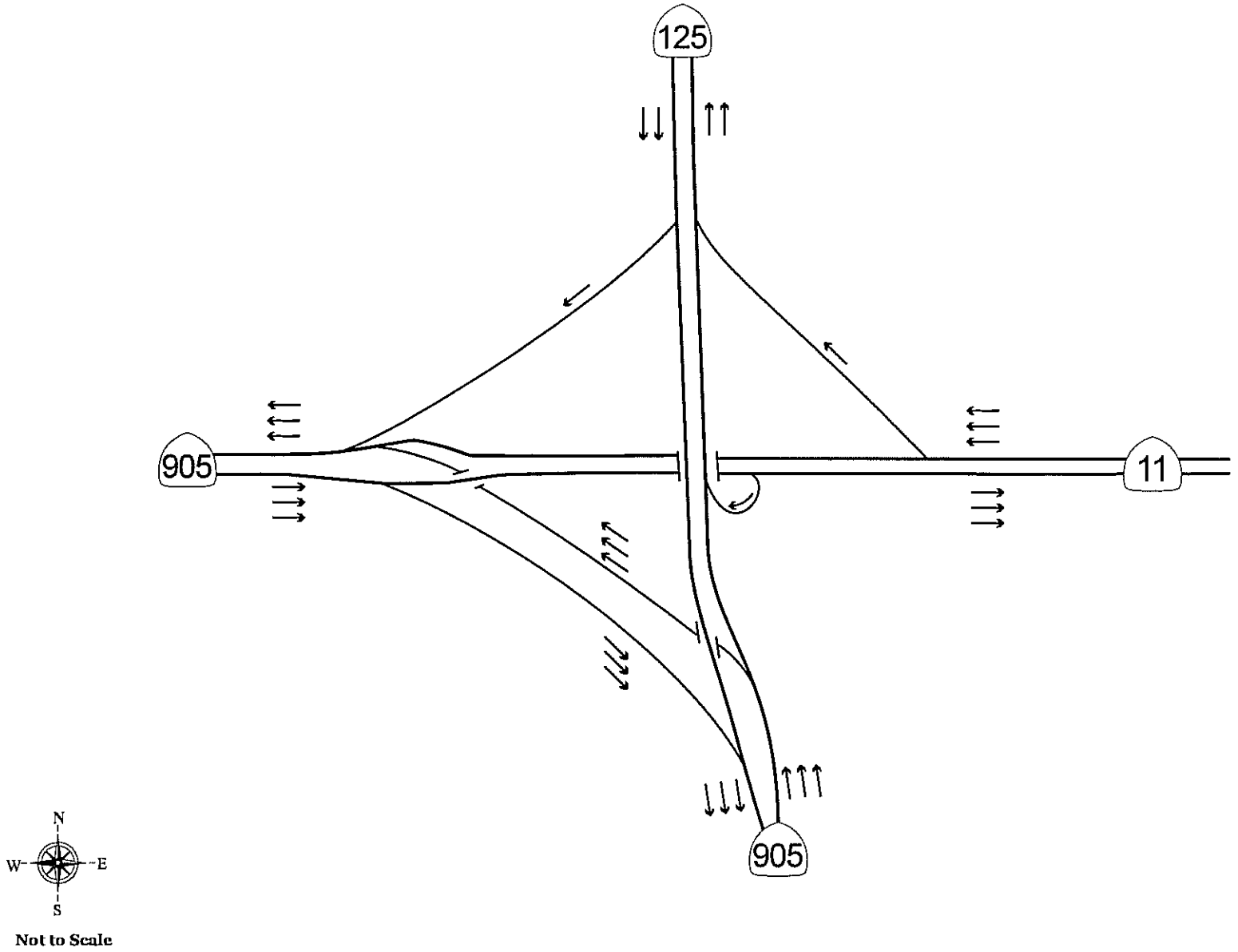


Opening Year (2015) SR-11 Lane Geometry
SR-11/Siempre Viva Road Design Variation

Legend

⟵ Number of Lanes

Figure 4-66a

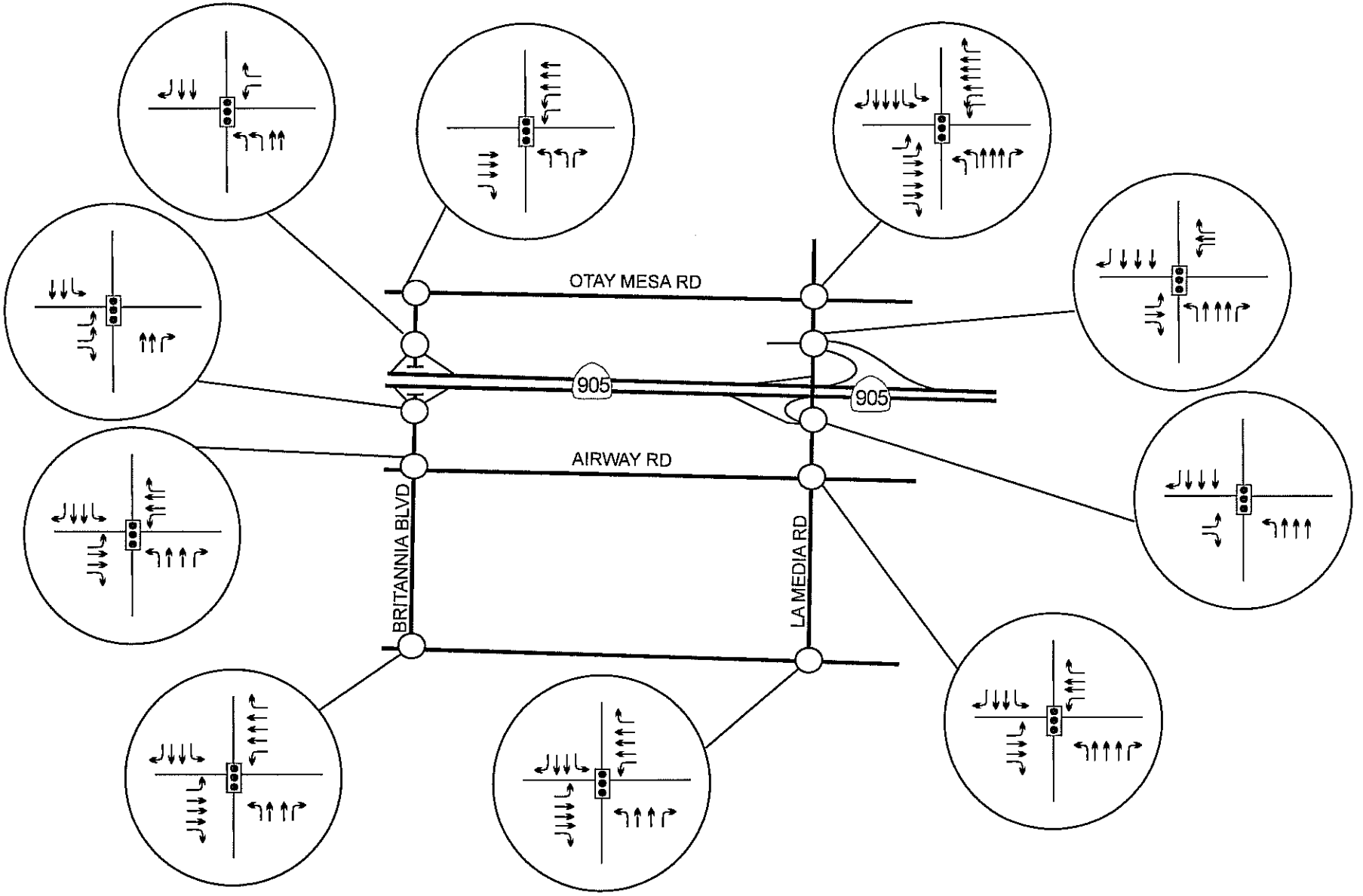


Opening Year (2015) SR-11 Lane Geometry
SR-11/Siempre Viva Road Design Variation

Legend

← Number of Lanes

Figure 4-66b



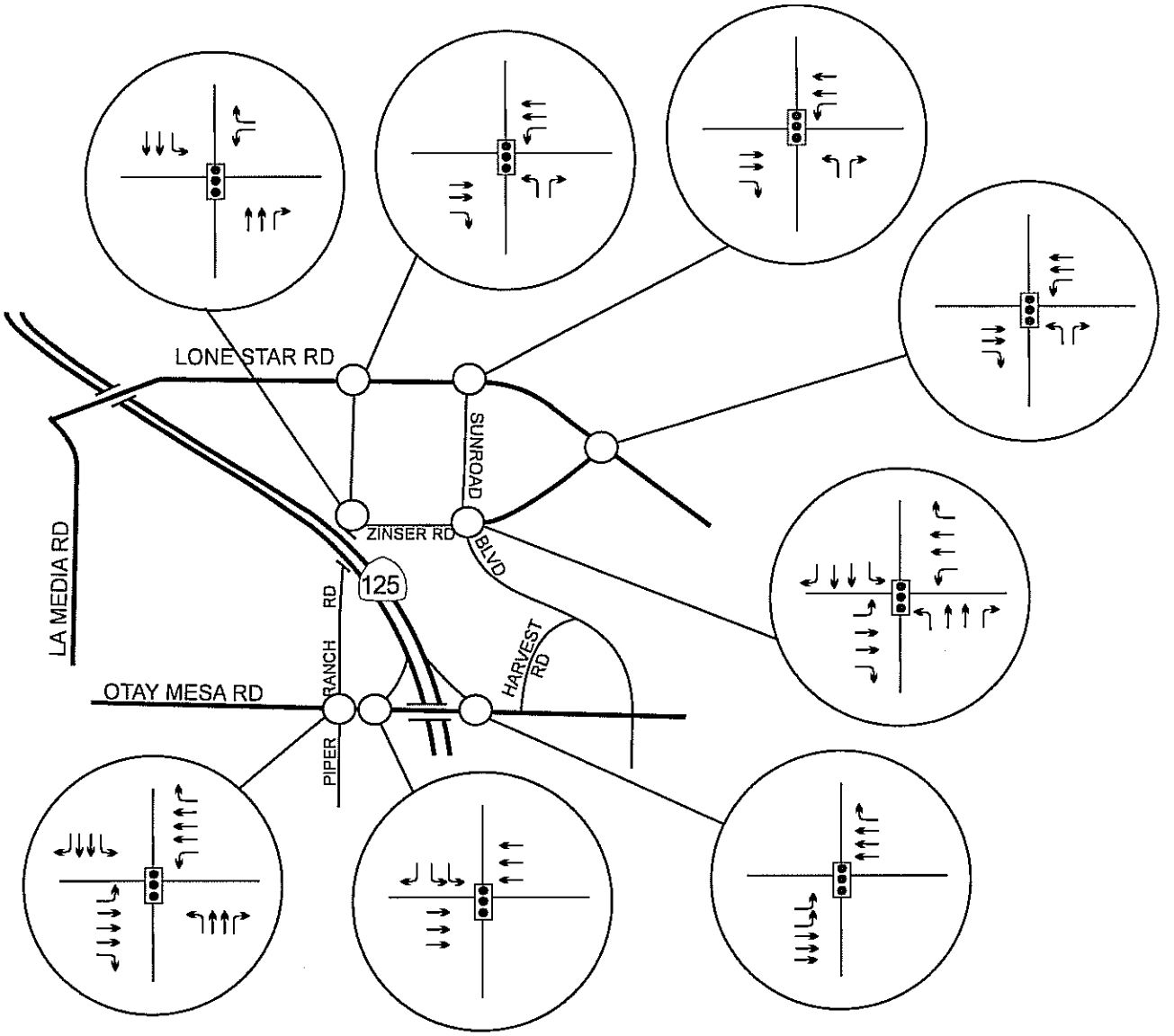
Opening Year (2015) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel

Signal

Figure 4-67a



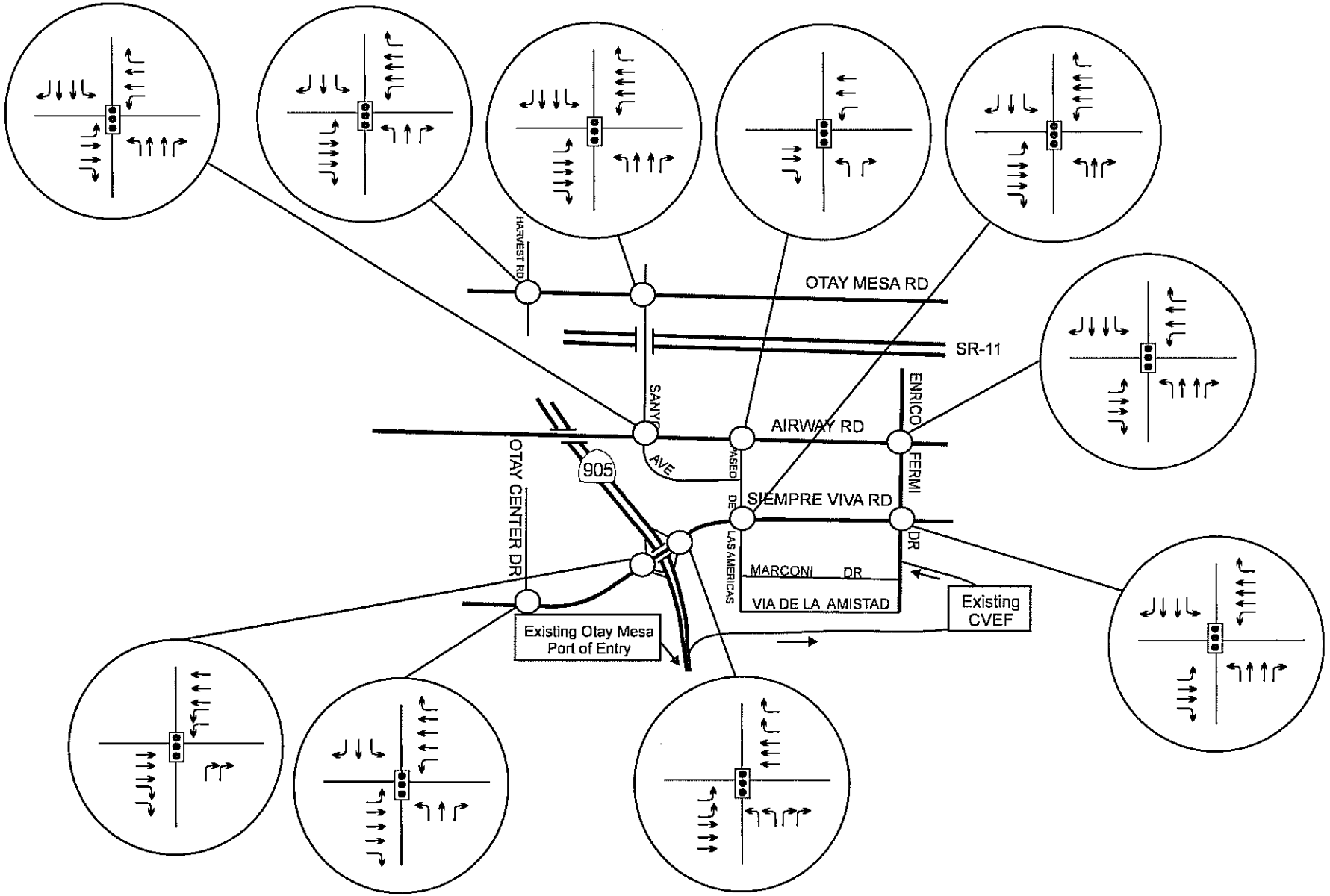
Opening Year (2015) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel

Signal

Figure 4-67b



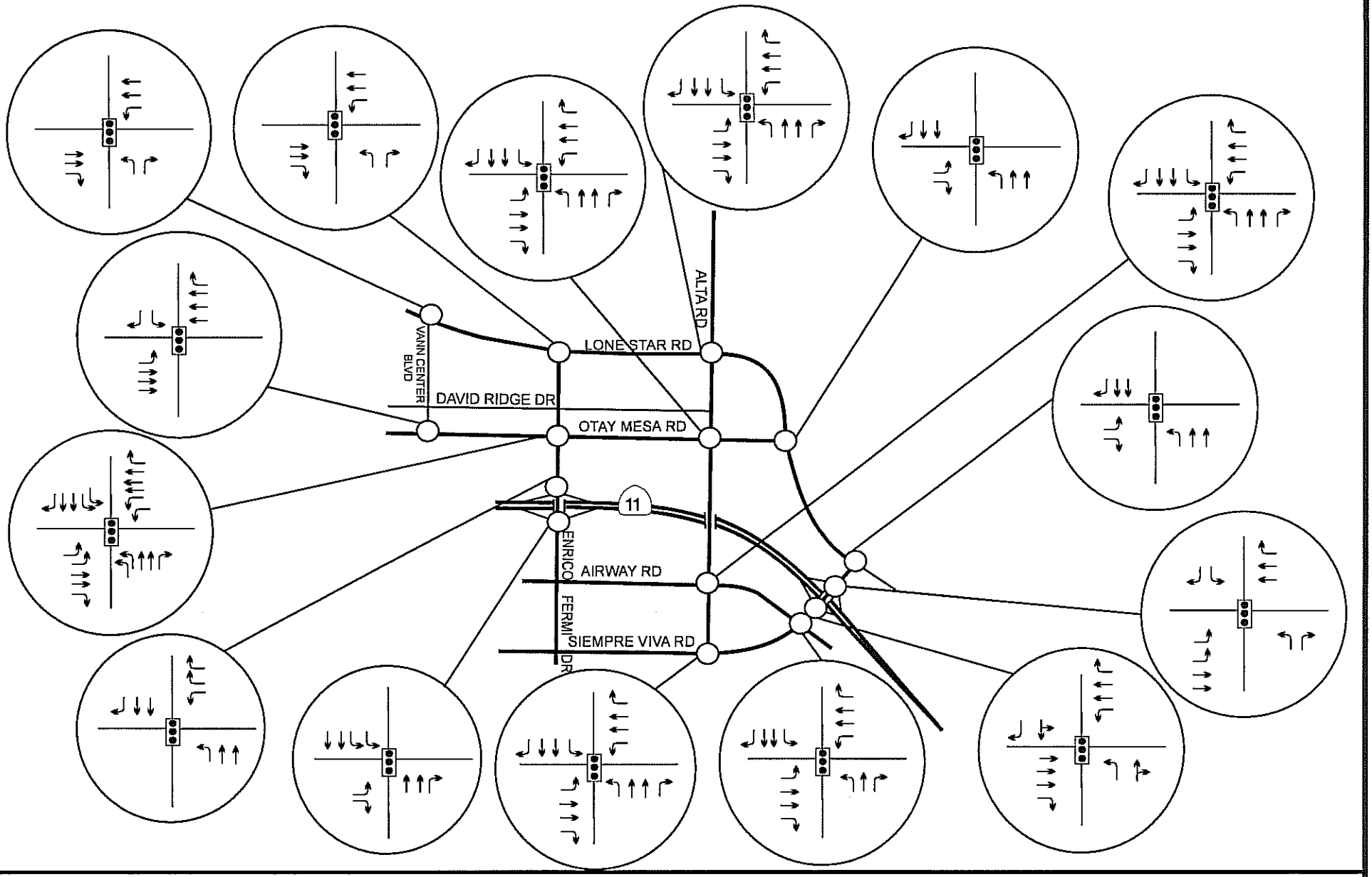
Opening Year (2015) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel

Signal

Figure 4-67c



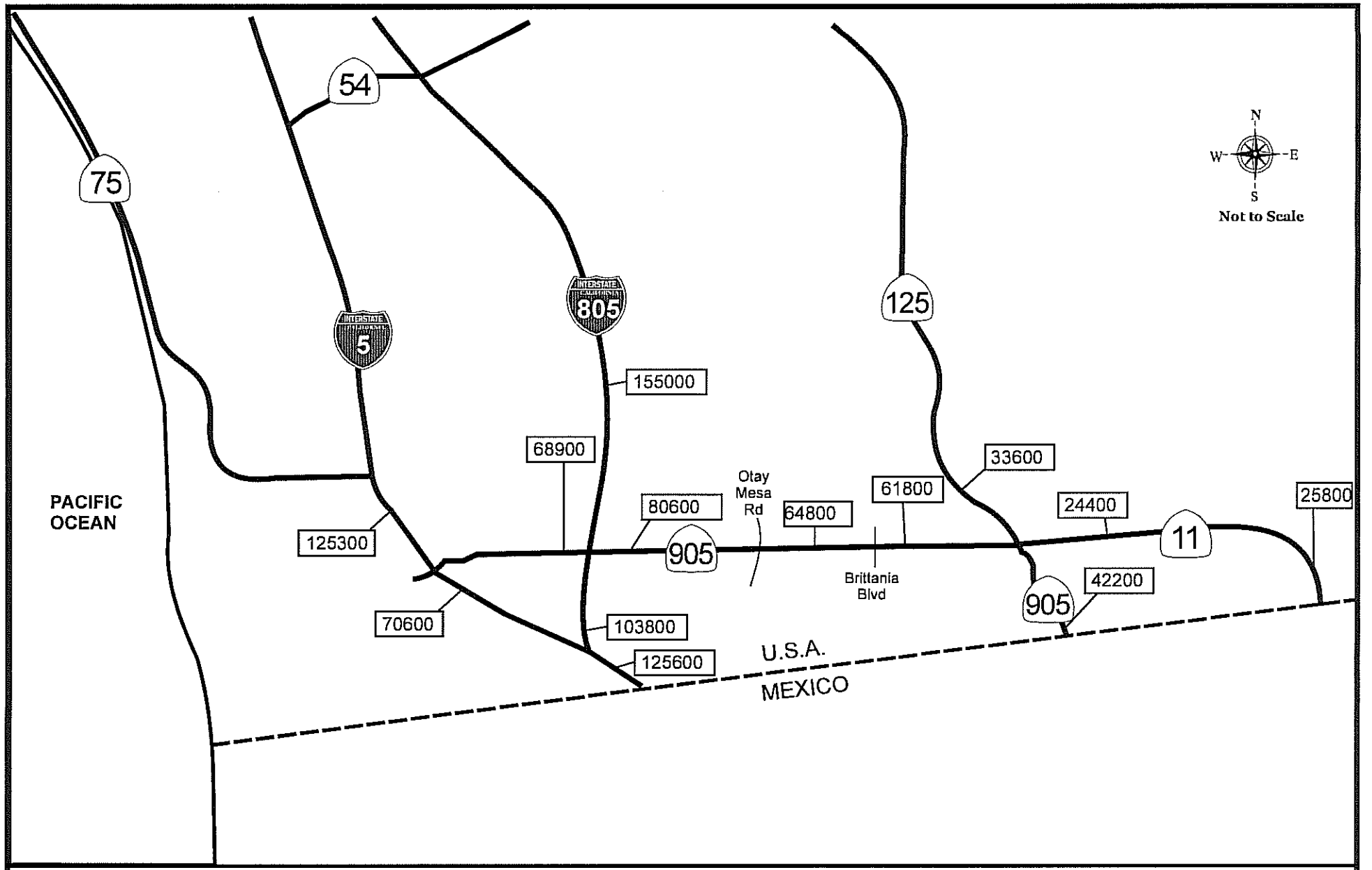
Opening Year (2015) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel

Signal

Figure 4-67d



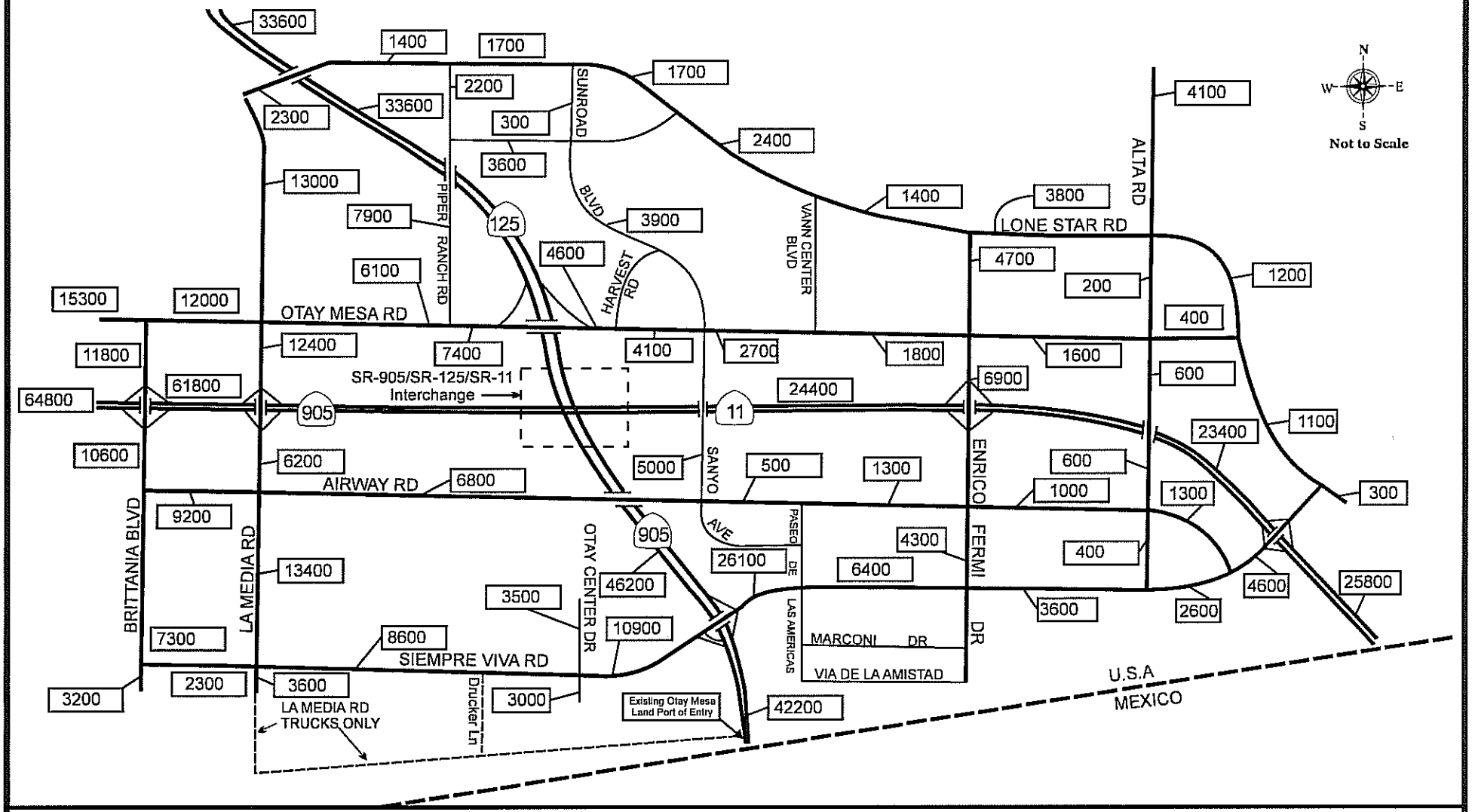
Opening Year (2015) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-68a



Opening Year (2015) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

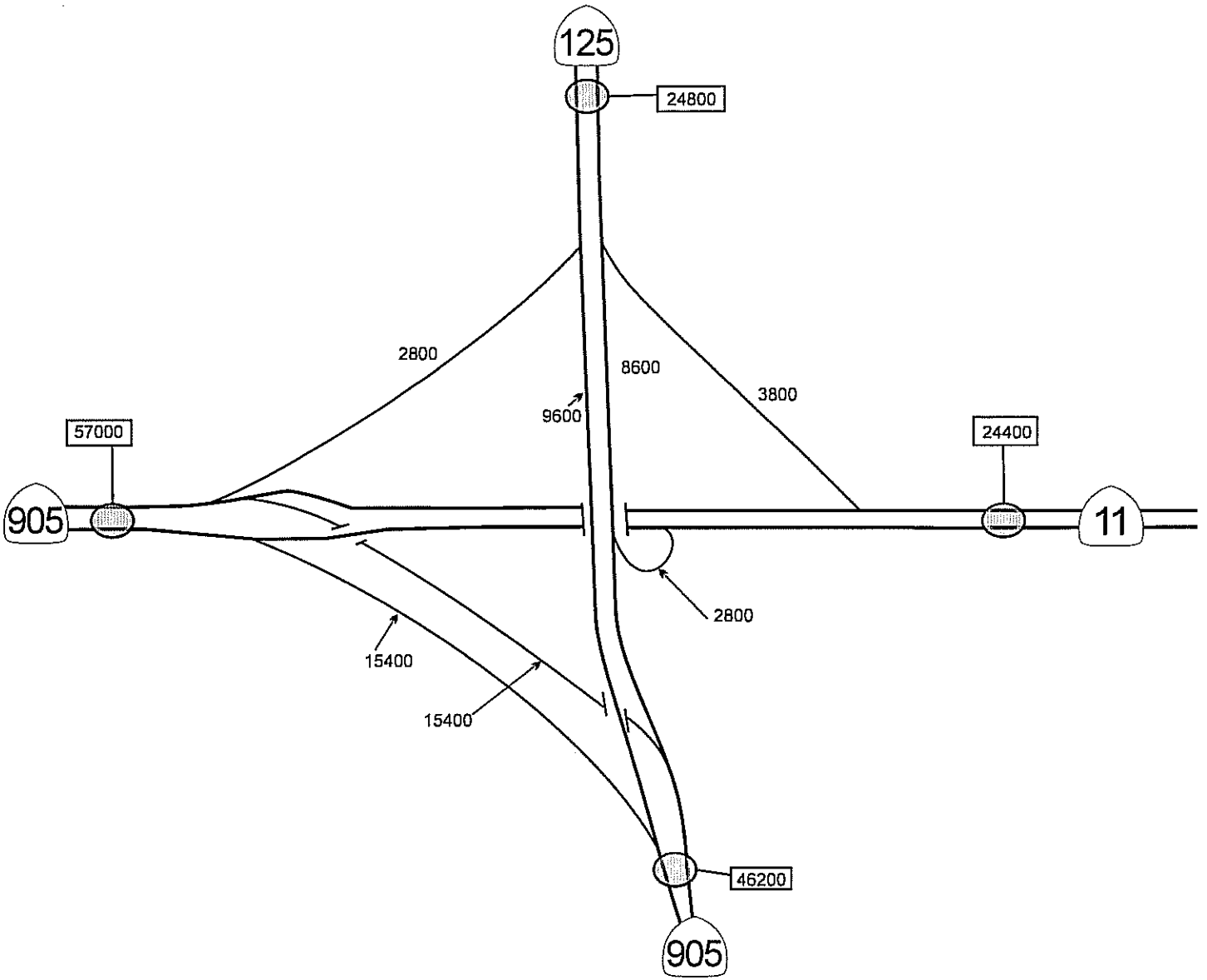
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-68b

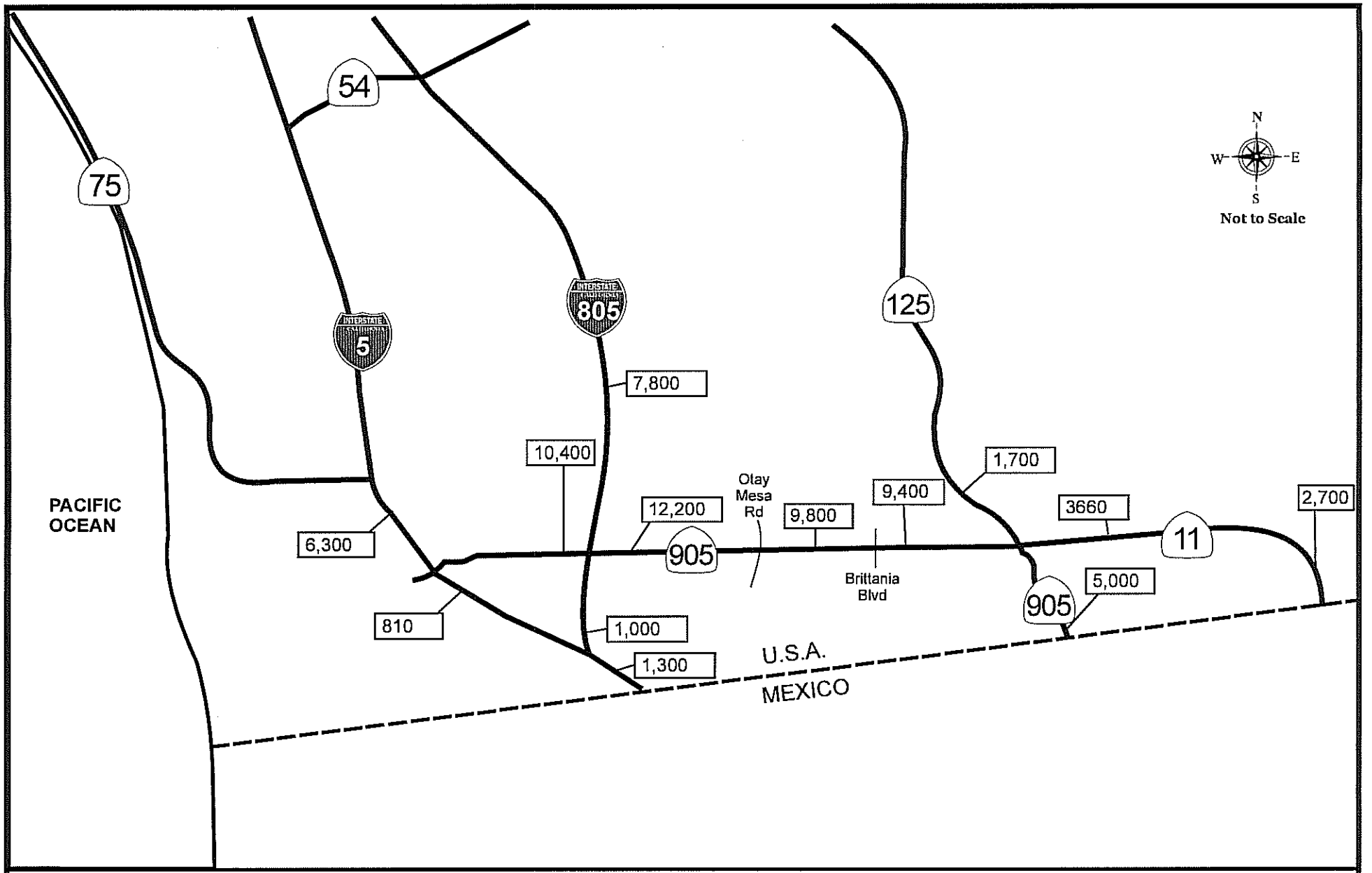


Opening Year (2015) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 4-68c



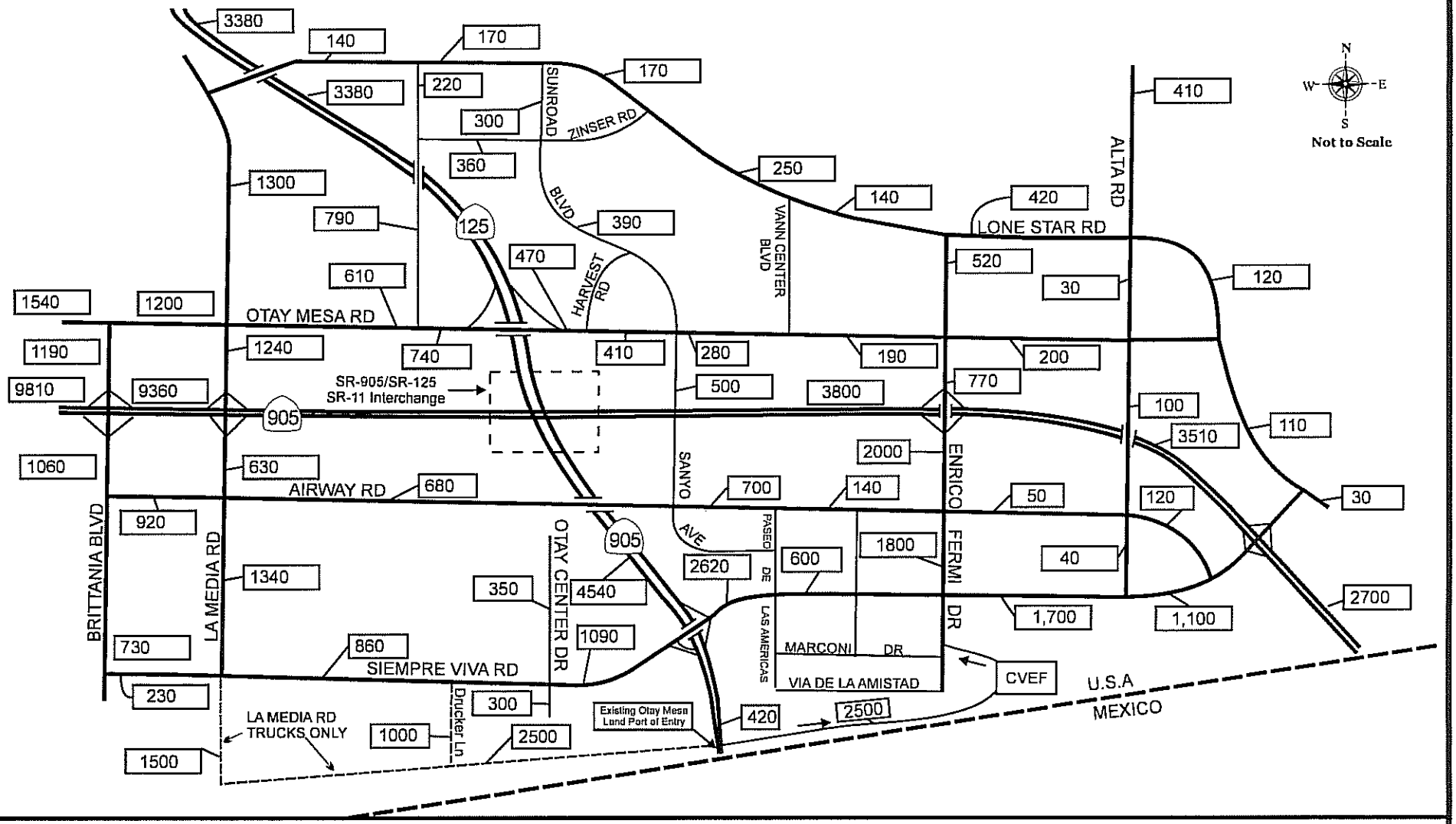
Opening Year (2015) Daily Truck Trips - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 4-69a



Opening Year (2015) Daily Truck Trips - SR-11/Siempre Viva Road Design Variation

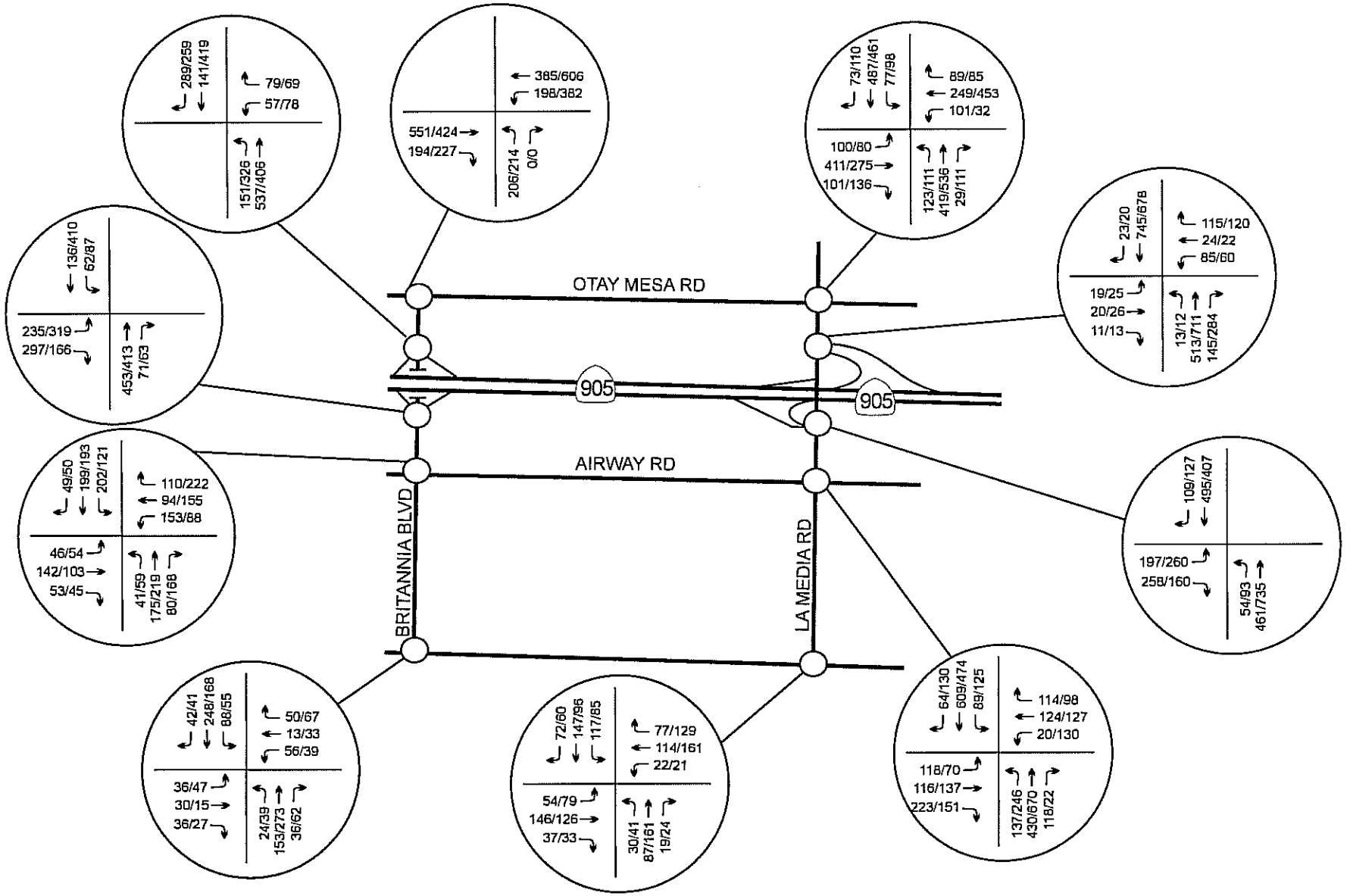
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 4-69b

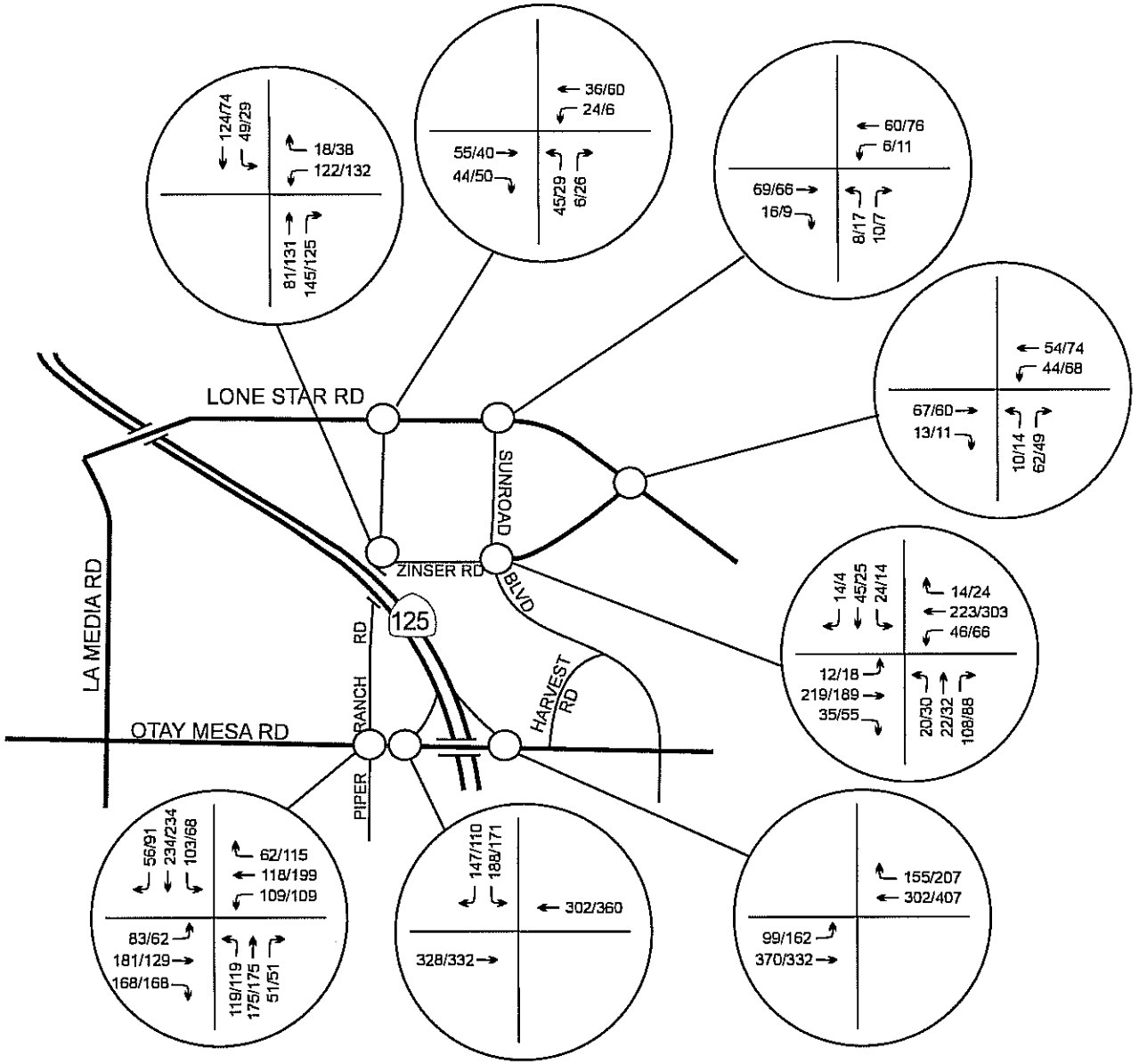


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-70a

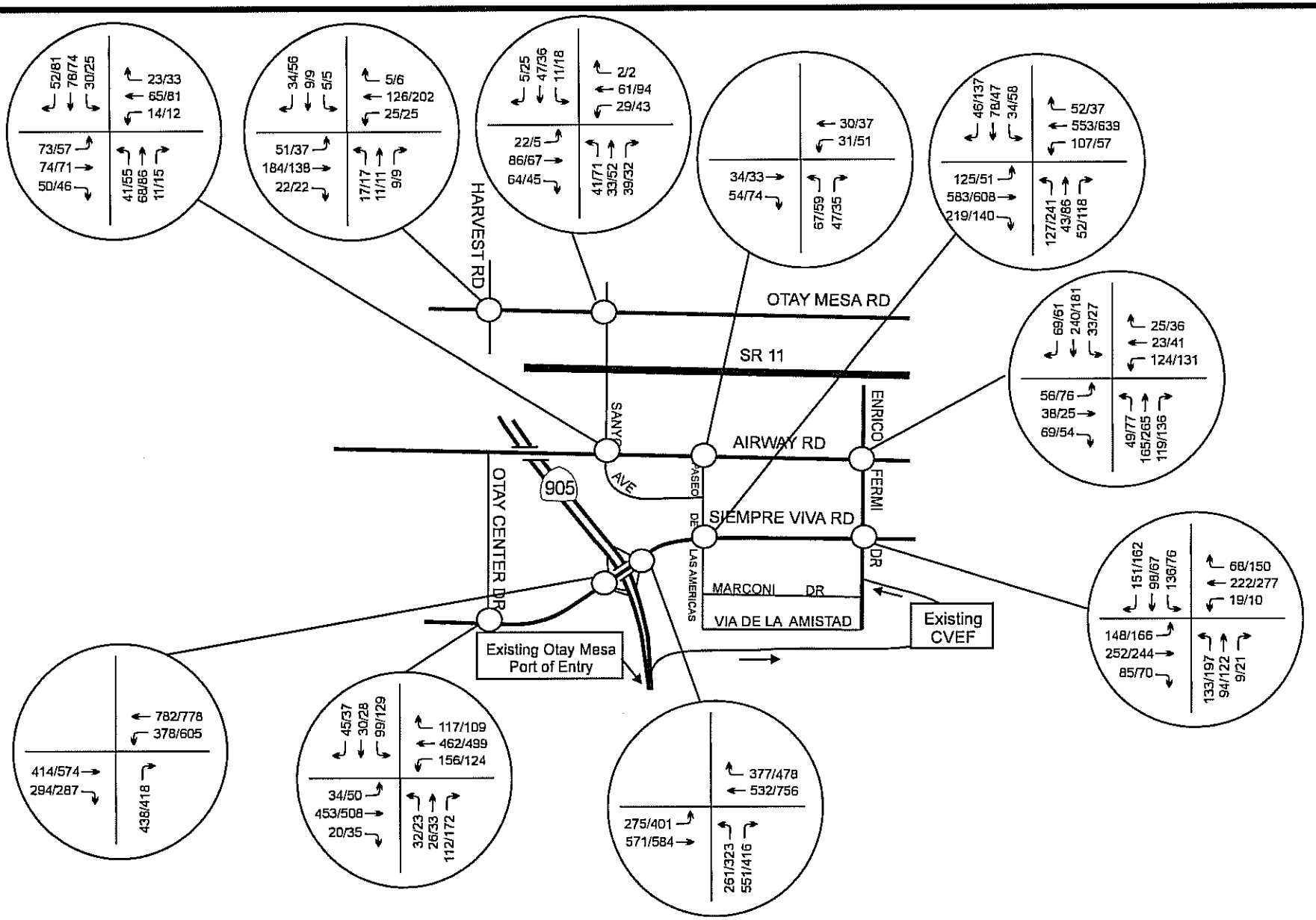


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-70b

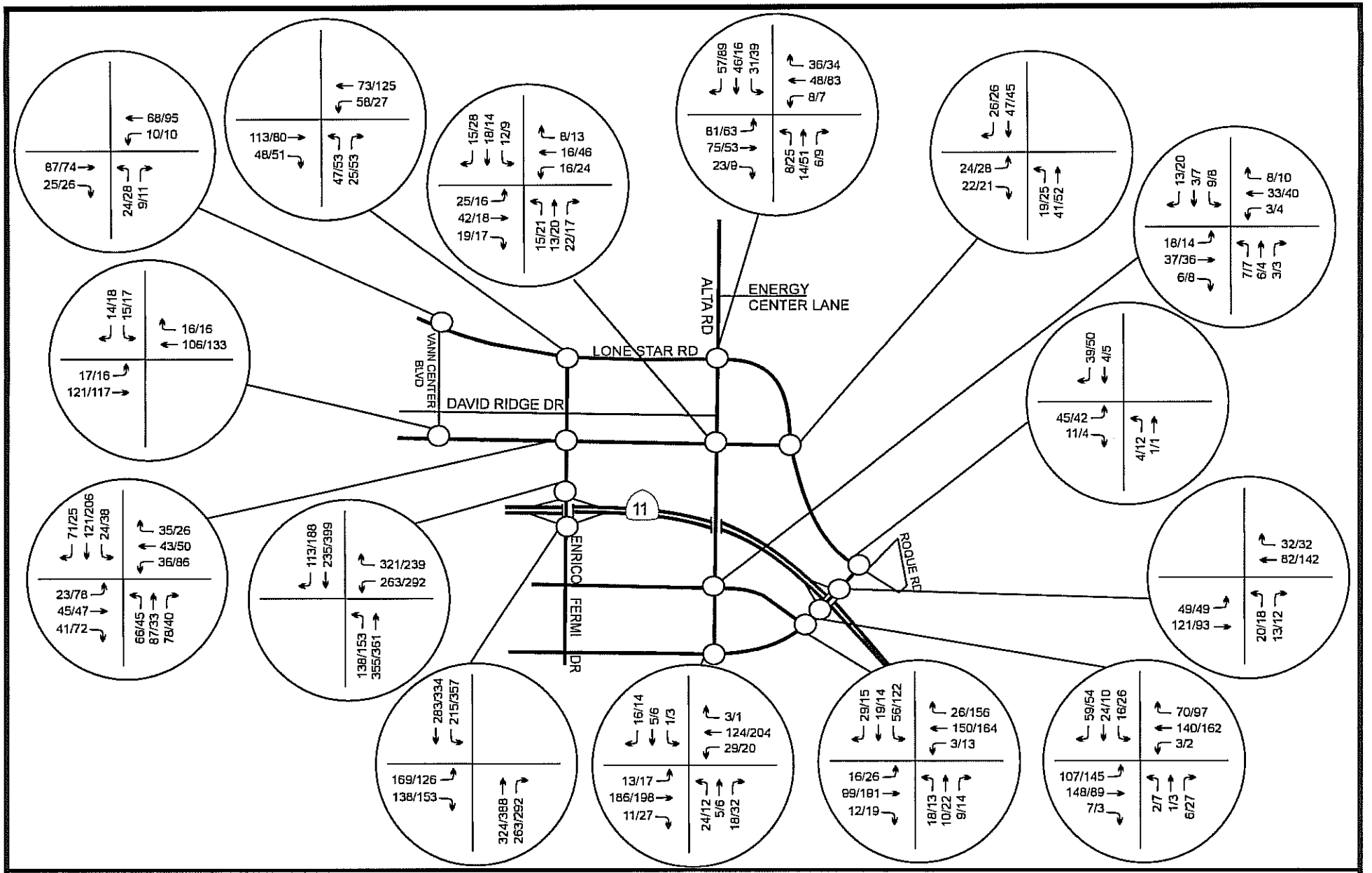


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 4-70c

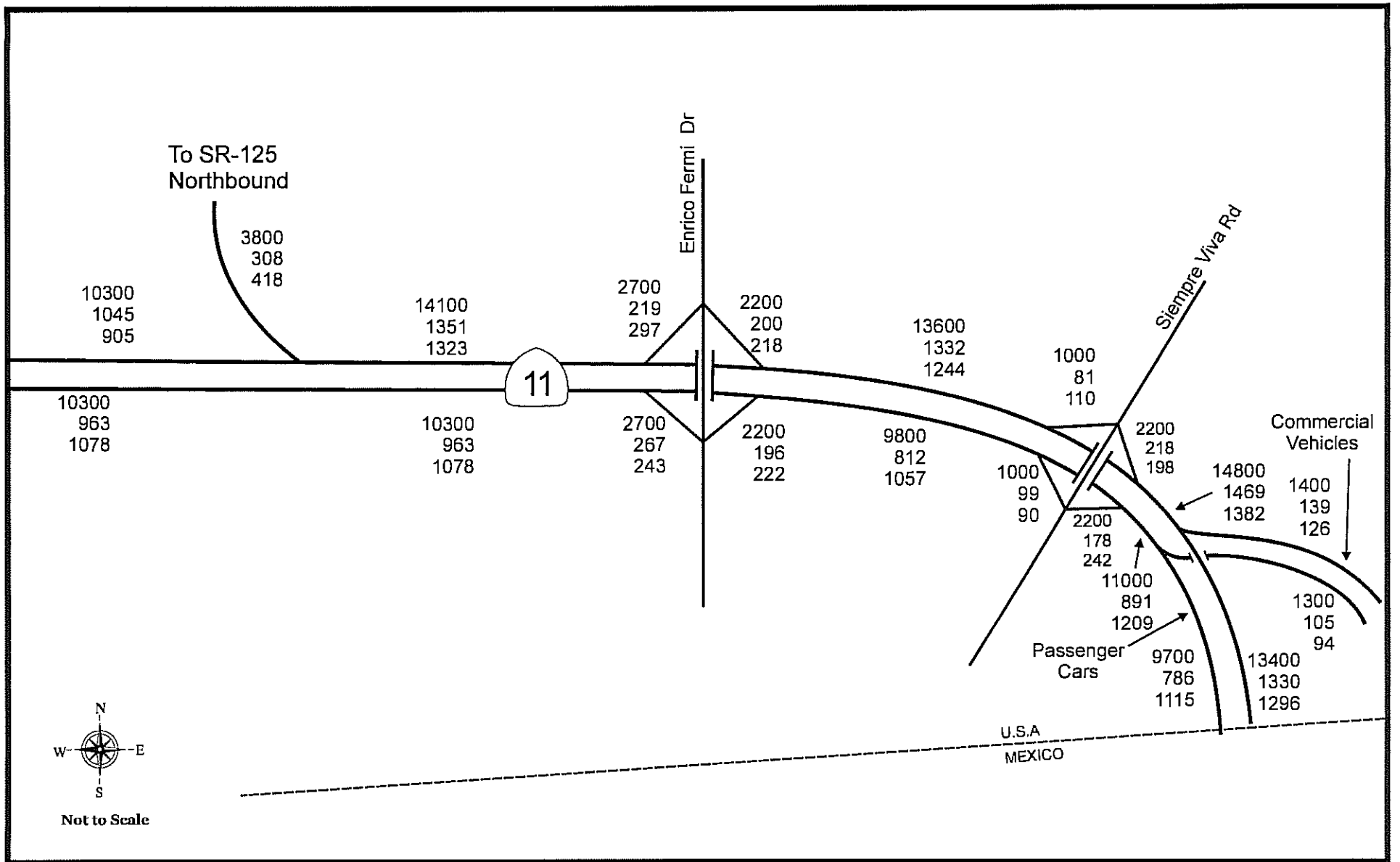


Opening Year (2015) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 4-70d



Opening Year (2015) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-11/Siempre Viva Road Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 4-70e

Table 4-1
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO BUILD

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	31,000	9.00%	0.55	1,535	4	2	2,000	4,000	5%	0.40	A
	Lone Star Rd to Otay Mesa Rd	31,000	9.00%	0.55	1,535	4	2	2,000	4,000	5%	0.40	A
SR-905	I-5 to I-805	66,900	9.00%	0.55	3,312	6	3	2,000	6,000	15%	0.63	C
	I-805 to Otay Mesa Rd	76,900	9.00%	0.55	3,807	6	3	2,000	6,000	15%	0.73	C
	Otay Mesa Rd to Britannia Blvd	60,800	9.00%	0.55	3,010	6	3	2,000	6,000	15%	0.58	B
	Britannia Blvd to La Media Rd	56,600	9.00%	0.55	2,802	6	3	2,000	6,000	15%	0.54	B
	SR 125/ SR 11 to Siempre Viva Rd	53,400	9.00%	0.55	2,643	6	3	2,000	6,000	15%	0.51	B
	Siempre Viva Rd to International Border (2)	49,400	9.00%	0.55	2,445	6	3	2,000	6,000	15%	0.47	B
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	76,000	9.00%	0.55	3,762	8	4	2,000	8,000	1%	0.47	B
	I-805 to International Border (2)	130,700	9.00%	0.55	6,470	12	6	2,000	12,000	1%	0.54	B
I-805	North of SR -905	161,700	9.00%	0.55	8,004	8	4	2,000	8,000	10%	1.10	F
	SR-905 to I-5	114,200	9.00%	0.55	5,653	8	4	2,000	8,000	1%	0.71	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-2

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO BUILD

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,400	0.06	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,200	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,500	0.12	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,400	0.21	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,700	0.13	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	5,100	0.09	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,800	0.05	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,300	0.23	A
	La Media Rd to SR 905	City	4 Lane Major	40,000	6,400	0.16	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	900	0.02	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	700	0.02	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	500	0.01	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,200	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,400	0.14	A
	Otay Center Dr to SR 905	City	6 Lane Prime	60,000	12,100	0.20	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	27,000	0.45	A
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	5,300	0.09	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,200	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,100	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-2

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO BUILD continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	11,600	0.29	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,500	0.26	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,600	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,900	0.22	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,300	0.16	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,600	0.34	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,300	0.07	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,400	0.28	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,300	0.11	A
Sanyo Ave	Otay Mesa Rd to Airway Rd	City/County	Collector	34,200	3,500	0.10	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	9,900	0.33	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	5,000	0.09	A
	Otay Mesa Rd to SR - 905	County	Major Road	37,000	5,600	0.15	A
	SR-905 to Siempre Viva Rd	County	Major Road	37,000	3,600	0.10	A
	South of Siempre Viva Rd	County	Major Road	37,000	500	0.01	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	A
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	600	0.02	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-3
Opening Year (2015)
Intersection Capacity Analysis
No Build

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and Piper Ranch Rd	B	10.8	A	6.7
Lone Star Rd and Sunroad Blvd	A	7.7	A	6.1
Lone Star Rd and Zinser Rd	A	8.7	B	10.2
Lone Star Rd and Van Center Blvd	A	6.9	A	7.7
Lone Star Rd and Enrico Fermi Dr	B	11.6	A	8.8
Lone Star Rd and Alta Rd	B	15.7	B	16.3
Lone Star Rd and Otay Mesa Rd	A	8.0	A	8.5
Lone Star Rd and Siempre Viva Rd	B	11.3	B	13.8
Zinser Rd and Piper Ranch Rd	B	10.5	B	10.4
Zinser Rd and Sunroad Blvd	B	16.3	B	19.0
Otay Mesa Rd and Britannia Blvd	B	12.1	B	13.1
Otay Mesa Rd and La Media Rd	C	21.9	B	18.8
Otay Mesa Rd and Piper Ranch Rd	C	23.0	C	20.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	6.0	A	6.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.3	A	2.8
Otay Mesa Rd and Harvest Rd	B	14.0	B	12.8
Otay Mesa Rd and Sanyo Ave	B	12.2	B	13.1
Otay Mesa Rd and Van Center Blvd	A	5.6	A	5.3
Otay Mesa Rd and Enrico Fermi Dr	B	13.6	B	16.6
Otay Mesa Rd and Alta Rd	B	11.8	B	11.5
SR 905 WB Ramps and Britannia Blvd	A	7.2	A	8.0
SR 905 EB Ramps and Britannia Blvd	B	10.4	B	10.4
SR 905 WB Off Ramp and La Media Rd	A	7.9	A	8.0
SR 905 EB Ramps and La Media Rd	B	11.6	B	12.7
Enrico Fermi Dr and SR 11	B	11.8	B	10.6
Airway Rd and Britannia Blvd	C	24.4	B	18.2
Airway Rd and La Media Rd	B	18.8	C	24.2
Airway Rd and Sanyo Ave	B	15.9	B	15.3
Airway Rd and Paseo De Las Americas	A	6.8	A	8.0
Airway Rd and Enrico Fermi Dr	B	14.4	B	15.1
Airway Rd and Alta Rd	B	13.9	B	14.1
Siempre Viva Rd and Britannia Blvd	B	16.0	B	15.0
Siempre Viva Rd and La Media Rd	B	14.9	B	15.3
Siempre Viva Rd and Otay Center Dr	C	25.7	C	24.4
Siempre Viva Rd and SR-905 SB Ramps	A	7.5	A	7.5
Siempre Viva Rd and SR-905 NB Ramps	B	11.9	B	13.0
Siempre Viva Rd and Paseo De Las Americas	C	21.3	C	24.1
Siempre Viva Rd and Enrico Fermi Dr	B	17.8	B	16.7
Siempre Viva Rd and Alta Rd	B	14.6	B	14.1
Siempre Viva Rd and Airway Rd	B	15.9	B	15.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-4
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

		Peak Hour Traffic (veh/hr)									
SR 11		AM		PM		Number of Lanes		AM Peak Hour		PM Peak Hour	
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Enrico Fermi Dr Off Ramp	Freeway	749		971		3		A	4.8	A	6.2
Enrico Fermi Dr Off Ramp	Diverge	749	145	971	132	2	2	A (3)	-1.9 (3)	A (3)	0.2 (3)
Enrico Fermi Dr On Ramp	Merge	604	342	839	420	2	1	B (3)	10.9 (3)	B (3)	13.7 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	946		1259		3		A	6.3	A	8.4
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	990	885	1299	1205	2	2	A (3)	1.0 (3)	A (3)	3.4 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
South of Siempre Viva Rd (Autos Only)	Freeway	786		1115		2		A	7.1	A	10.1
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1330		1206		2		B	12.1	A	10.9
South of Siempre Viva Rd (Commercial Only)	Freeway	139		137		2		A	1.4	A	1.4
Siempre Viva Rd On Ramp	Merge	1330	81	1206	110	3	1	A	10.0	A	9.6
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	1550		1453		3		A	9.8	A	9.2
Enrico Fermi Dr Off Ramp	Diverge	1550	378	1453	380	2	2	A (3)	5.9 (3)	A (3)	4.9 (3)
Enrico Fermi Dr On Ramp	Merge	1172	227	1073	308	2	1	B (3)	14.6 (3)	B (3)	14.4 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	1381		1402		3		A	8.9	A	8.8
SR-125 Off Ramp	Diverge	1381	324	1402	440	2	1	B (3)	13.2 (3)	B (3)	13.4 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-5
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	32,800	9.00%	0.55	1,624	4	2	2,000	4,000	5%	0.43	B
	Lone Star Rd to Otay Mesa Rd	32,800	9.00%	0.55	1,624	4	2	2,000	4,000	5%	0.43	B
SR-905	I-5 to I-805	69,500	9.00%	0.55	3,440	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	82,200	9.00%	0.55	4,069	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	66,400	9.00%	0.55	3,287	6	3	2,000	6,000	15%	0.63	C
	Britannia Blvd to La Media Rd	63,400	9.00%	0.55	3,138	6	3	2,000	6,000	15%	0.60	B
	SR 125/ SR 11 to Siempre Viva Rd	46,400	9.00%	0.55	2,297	6	3	2,000	6,000	15%	0.44	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,700	9.00%	0.55	6,222	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	81,000	9.00%	0.55	4,010	8	4	2,000	8,000	1%	0.51	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	155,700	9.00%	0.55	7,707	8	4	2,000	8,000	10%	1.06	F
	SR-905 to I-5	103,700	9.00%	0.55	5,133	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-6

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	3,000	0.08	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	4,000	0.12	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	8,000	0.13	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	5,700	0.10	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,800	0.07	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	100	0.00	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,000	0.03	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	9,000	0.15	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	11,000	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	27,200	0.45	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	7,000	0.12	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,200	0.06	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,500	0.04	A
	Airway Rd to SR-11	County	Major Road	37,000	1,500	0.04	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	500	0.01	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-6

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,000	0.22	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,000	0.20	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,000	0.15	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,000	0.33	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,000	0.06	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,000	0.27	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	100	0.00	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	4,000	0.13	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	6,000	0.18	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	5,000	0.09	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	8,700	0.24	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	6,000	0.16	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	100	0.00	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	100	0.00	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-7
Opening Year (2015)
Intersection Capacity Analysis
Toll/Two Interchanges

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	F	>80.0	F	>80.0
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	13.5	A	8.4
Lone Star Rd and Sunroad Blvd	A	6.4	A	4.9
Lone Star Rd and Zinser Rd	B	15.8	B	12.5
Lone Star Rd and Van Center Blvd	A	6.5	A	6.7
Lone Star Rd and Enrico Fermi Dr	A	9.8	A	9.7
Lone Star Rd and Alta Rd	C	25.1	C	23.5
Lone Star Rd and Otay Mesa Rd	B	12.9	B	13.1
Lone Star Rd and Siempre Viva Rd	B	14.5	C	21.2
Zinser Rd and Piper Ranch Rd	B	14.1	B	12.8
Zinser Rd and Sunroad Blvd	C	22.5	C	24.7
Otay Mesa Rd and Britannia Blvd	B	15.4	B	15.3
Otay Mesa Rd and La Media Rd	C	22.7	C	21.6
Otay Mesa Rd and Piper Ranch Rd	C	25.9	C	24.8
Otay Mesa Rd and SR-125 SB Off Ramp	A	6.5	A	6.5
Otay Mesa Rd and SR-125 NB On Ramp	A	2.5	A	3.1
Otay Mesa Rd and Harvest Rd	B	14.0	B	14.1
Otay Mesa Rd and Sanyo Ave	B	17.4	B	19.7
Otay Mesa Rd and Van Center Blvd	A	5.2	A	5.3
Otay Mesa Rd and Enrico Fermi Dr	B	16.1	C	20.9
Otay Mesa Rd and Alta Rd	C	22.4	C	21.2
SR 905 WB Ramps and Britannia Blvd	A	8.5	A	9.9
SR 905 EB Ramps and Britannia Blvd	B	15.6	B	14.4
SR 905 WB Off Ramp and La Media Rd	B	11.4	A	9.9
SR 905 EB Ramps and La Media Rd	B	11.2	A	9.1
SR 11 WB Ramps and Enrico Fermi Dr	B	15.6	B	15.9
SR 11 EB Ramps and Enrico Fermi Dr	B	11.1	B	12.7
SR 11 WB On Ramp and Siempre Viva Rd	A	5.1	A	6.3
SR 11 EB Off Ramp and Siempre Viva Rd	B	12.3	B	11.1
Airway Rd and Britannia Blvd	C	27.7	C	22.1
Airway Rd and La Media Rd	C	21.0	C	25.3
Airway Rd and Sanyo Ave	B	17.5	B	17.2
Airway Rd and Paseo De Las Americas	C	21.4	C	21.1
Airway Rd and Enrico Fermi Dr	C	22.5	C	21.2
Airway Rd and Alta Rd	C	32.9	C	28.3
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	22.2	C	21.3
Siempre Viva Rd and Otay Center Dr	C	26.4	C	28.5
Siempre Viva Rd and SR-905 SB Ramps	B	13.4	B	12.8
Siempre Viva Rd and SR-905 NB Ramps	B	13.3	B	15.0
Siempre Viva Rd and Paseo De Las Americas	C	25.9	C	25.9
Siempre Viva Rd and Enrico Fermi Dr	C	31.4	C	24.2
Siempre Viva Rd and Alta Rd	C	22.3	C	20.9
Siempre Viva Rd and Airway Rd	C	25.0	C	24.9

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-8
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Alta Rd Off Ramp	Freeway	580		671		2		A	5.7	A	6.6
Alta Rd Off Ramp	Diverge	580	176	671	119	2	2	A (3)	5.4 (3)	A (3)	6.3 (3)
Alta Rd On Ramp	Merge	413	478	560	649	2	1	B (3)	10.3 (3)	B (3)	13.2 (3)
Alta Rd On Ramp to Siempre Viva Rd	Weave	940		1252		3		A (3)	6.6 (3)	A (3)	8.8 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	891	786	1201	1115	2	2	A (3)	1.0 (3)	A (3)	2.5 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
South of Siempre Viva Rd (Autos Only)	Freeway	786		1115		2		A	7.1	A	10.1
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1330		1206		2		B	12.1	A	10.9
South of Siempre Viva Rd (Commercial Only)	Freeway	139		137		2		A	1.4	A	1.4
Siempre Viva Rd to Alta Rd Off Ramp	Weave	1608		1480		3		B (3)	10.0 (3)	A (3)	9.0 (3)
Alta Rd Off Ramp	Diverge	1469	584	1343	531	2	1	B (3)	14.1 (3)	B (3)	12.8 (3)
Alta Rd On Ramp	Merge	885	251	812	341	2	1	B	12.3	B	12.4
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	1136		1153		2		B	11.3	B	11.3
SR-125 Off Ramp	Diverge	1136	300	1153	407	2	1	B	10.8	B	11.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-9
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	32,800	9.00%	0.55	1,624	4	2	2,000	4,000	5%	0.43	B
	Lone Star Rd to Otay Mesa Rd	34,600	9.00%	0.55	1,713	4	2	2,000	4,000	5%	0.45	B
SR-905	I-5 to I-805	69,600	9.00%	0.55	3,445	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	81,800	9.00%	0.55	4,049	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	66,000	9.00%	0.55	3,267	6	3	2,000	6,000	15%	0.63	C
	Britannia Blvd to La Media Rd	63,000	9.00%	0.55	3,119	6	3	2,000	6,000	15%	0.60	B
	SR 125/ SR 11 to Siempre Viva Rd	47,200	9.00%	0.55	2,336	6	3	2,000	6,000	15%	0.45	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,700	9.00%	0.55	6,222	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	70,700	9.00%	0.55	3,500	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	154,700	9.00%	0.55	7,658	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,700	9.00%	0.55	5,133	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.

(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4 -10

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	9,000	0.15	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,000	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	5,000	0.08	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,000	0.08	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	0	0.00	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,000	0.08	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,000	0.17	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	28,000	0.47	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-10

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	3,000	0.09	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,000	0.27	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	City	4 Lane Collector	30,000	4,000	0.13	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	2,000	0.04	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	3,000	0.08	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	6,000	0.16	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	3,000	0.08	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-11
Opening Year (2015)
Intersection Capacity Analysis
Toll/One Interchange

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	11.8	A	8.8
Lone Star Rd and Sunroad Blvd	A	4.3	A	5.5
Lone Star Rd and Zinser Rd	B	14.6	B	13.5
Lone Star Rd and Van Center Blvd	A	5.5	A	6.8
Lone Star Rd and Enrico Fermi Dr	B	10.1	A	8.1
Lone Star Rd and Alta Rd	C	23.1	C	23.3
Lone Star Rd and Otay Mesa Rd	A	8.0	A	8.2
Lone Star Rd and Siempre Viva Rd	B	15.1	B	16.7
Zinser Rd and Piper Ranch Rd	B	12.0	B	12.4
Zinser Rd and Sunroad Blvd	C	23.4	C	25.3
Otay Mesa Rd and Britannia Blvd	B	16.5	B	16.6
Otay Mesa Rd and La Media Rd	C	24.0	C	21.3
Otay Mesa Rd and Piper Ranch Rd	C	24.5	C	21.0
Otay Mesa Rd and SR-125 SB Off Ramp	B	11.0	B	13.9
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	3.0
Otay Mesa Rd and Harvest Rd	B	14.3	B	13.7
Otay Mesa Rd and Sanyo Ave	B	16.9	C	20.4
Otay Mesa Rd and Van Center Blvd	A	5.3	A	5.2
Otay Mesa Rd and Enrico Fermi Dr	B	18.6	C	21.7
Otay Mesa Rd and Alta Rd	B	16.3	B	17.3
SR 905 WB Ramps and Britannia Blvd	B	11.8	A	9.0
SR 905 EB Ramps and Britannia Blvd	B	13.6	B	11.6
SR 905 WB Off Ramp and La Media Rd	A	7.5	A	7.4
SR 905 EB Ramps and La Media Rd	B	12.8	B	12.4
SR 11 WB Ramps and Alta Rd	B	15.4	B	14.9
SR 11 EB Ramps and Alta Rd	B	11.3	B	10.9
Airway Rd and Britannia Blvd	C	27.7	C	22.1
Airway Rd and La Media Rd	C	22.1	C	27.7
Airway Rd and Sanyo Ave	B	17.4	B	17.1
Airway Rd and Paseo De Las Americas	B	14.1	B	14.8
Airway Rd and Enrico Fermi Dr	C	21.0	C	21.7
Airway Rd and Alta Rd	C	22.1	C	20.5
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.4
Siempre Viva Rd and Otay Center Dr	C	26.1	C	26.3
Siempre Viva Rd and SR-905 SB Ramps	B	12.2	B	12.4
Siempre Viva Rd and SR-905 NB Ramps	B	14.7	B	15.9
Siempre Viva Rd and Paseo De Las Americas	C	22.2	C	27.4
Siempre Viva Rd and Enrico Fermi Dr	C	29.9	C	28.4
Siempre Viva Rd and Alta Rd	C	25.7	C	23.3
Siempre Viva Rd and Airway Rd	C	27.9	C	25.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-12
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Enrico Fermi Dr	Freeway	891		1209		3		B	17.8	B	16.3
Enrico Fermi Dr to Siempre Viva Rd	Freeway	891		1209		3		B	14.6	B	18.0
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	891	105	1209	94	2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	786		1115		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1320		1197		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	2.5	A	2.3
Siempre Viva Rd to Enrico Fermi Dr	Freeway	1459		1323		3		C	20.2	C	19.9
Enrico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	1459		1323		3		C	20.7	C	23.6
SR-125 Off Ramp	Diverge	1459	300	1323	407	2	1	D (3)	31.5 (3)	E (3)	35.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-13
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	34,000	9.00%	0.55	1,683	4	2	2,000	4,000	5%	0.44	B
	Lone Star Rd to Otay Mesa Rd	34,000	9.00%	0.55	1,683	4	2	2,000	4,000	5%	0.44	B
SR-905	I-5 to I-805	70,100	9.00%	0.55	3,470	6	3	2,000	6,000	15%	0.67	C
	I-805 to Otay Mesa Rd	83,700	9.00%	0.55	4,143	6	3	2,000	6,000	15%	0.79	D
	Otay Mesa Rd to Britannia Blvd	68,000	9.00%	0.55	3,366	6	3	2,000	6,000	15%	0.65	C
	Britannia Blvd to La Media Rd	65,200	9.00%	0.55	3,227	6	3	2,000	6,000	15%	0.62	B
	SR 125/ SR 11 to Siempre Viva Rd	49,000	9.00%	0.55	2,426	6	3	2,000	6,000	15%	0.46	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,700	9.00%	0.55	6,222	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	70,700	9.00%	0.55	3,500	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	156,300	9.00%	0.55	7,737	8	4	2,000	8,000	10%	1.06	F
	SR-905 to I-5	103,800	9.00%	0.55	5,138	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-14

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	5,000	0.14	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	13,000	0.22	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	8,600	0.14	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	7,000	0.12	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	8,000	0.20	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	9,000	0.15	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	20,000	0.33	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	30,000	0.50	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-14

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	15,700	0.26	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	3,000	0.09	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	9,000	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	5,000	0.17	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	4,000	0.12	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	5,000	0.09	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	5,000	0.14	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	0	0.00	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	400	0.01	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-15
Opening Year (2015)
Intersection Capacity Analysis
Toll/No Interchanges

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	11.2	A	8.8
Lone Star Rd and Sunroad Blvd	A	3.7	A	5.2
Lone Star Rd and Zinser Rd	B	15.6	B	14.0
Lone Star Rd and Van Center Blvd	A	6.6	A	7.0
Lone Star Rd and Enrico Fermi Dr	B	10.4	A	9.2
Lone Star Rd and Alta Rd	C	24.9	C	23.6
Lone Star Rd and Otay Mesa Rd	B	10.8	B	11.5
Lone Star Rd and Siempre Viva Rd	B	15.4	B	17.1
Zinser Rd and Piper Ranch Rd	B	12.1	B	12.6
Zinser Rd and Sunroad Blvd	C	21.1	C	25.1
Otay Mesa Rd and Britannia Blvd	B	17.8	B	17.5
Otay Mesa Rd and La Media Rd	C	25.0	C	21.0
Otay Mesa Rd and Piper Ranch Rd	C	24.2	C	27.0
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.8	A	7.1
Otay Mesa Rd and SR-125 NB On Ramp	A	2.2	A	2.6
Otay Mesa Rd and Harvest Rd	B	13.0	B	14.8
Otay Mesa Rd and Sanyo Ave	C	20.9	C	21.2
Otay Mesa Rd and Van Center Blvd	A	5.8	A	5.7
Otay Mesa Rd and Enrico Fermi Dr	B	17.6	C	21.9
Otay Mesa Rd and Alta Rd	C	25.2	C	23.9
SR 905 WB Ramps and Britannia Blvd	B	10.8	A	7.3
SR 905 EB Ramps and Britannia Blvd	B	13.3	B	11.2
SR 905 WB Off Ramp and La Media Rd	A	6.5	A	7.9
SR 905 EB Ramps and La Media Rd	B	12.1	B	11.4
Airway Rd and Britannia Blvd	C	27.7	C	22.1
Airway Rd and La Media Rd	C	22.3	C	28.3
Airway Rd and Sanyo Ave	B	17.7	B	17.3
Airway Rd and Paseo De Las Americas	B	14.3	B	14.8
Airway Rd and Enrico Fermi Dr	C	20.7	C	21.4
Airway Rd and Alta Rd	C	28.1	C	26.4
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.6
Siempre Viva Rd and Otay Center Dr	C	29.3	C	29.1
Siempre Viva Rd and SR-905 SB Ramps	B	13.4	B	12.9
Siempre Viva Rd and SR-905 NB Ramps	B	14.6	B	15.1
Siempre Viva Rd and Paseo De Las Americas	C	28.1	C	28.4
Siempre Viva Rd and Enrico Fermi Dr	C	24.9	C	22.9
Siempre Viva Rd and Alta Rd	C	24.8	C	24.0
Siempre Viva Rd and Airway Rd	C	27.9	C	25.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-16
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Enrico Fermi Dr Off Ramp	Freeway	877		1148		3		A	5.6	A	7.3
Enrico Fermi Dr Off Ramp	Diverge	877	144	1148	130	2	2	A (3)	-0.7 (3)	A (3)	1.9 (3)
Enrico Fermi Dr On Ramp	Merge	733	362	1018	438	2	1	B (3)	12.3 (3)	B (3)	15.6 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	1095		1456		3		A	7.3	A	9.7
Siempre Viva Rd Off Ramp	Diverge	1095	66	1456	59	2	1	B (3)	10.4 (3)	B (3)	14.0 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1148	1029	1505	1396	2	2	A (3)	1.9 (3)	A (3)	5.4 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	121		109		2		A	1.2	A	1.1
South of Siempre Viva Rd (Autos Only)	Freeway	908		1288		2		A	8.2	B	11.7
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1528		1386		2		B	13.9	B	12.6
South of Siempre Viva Rd (Commercial Only)	Freeway	159		144		2		A	1.6	A	1.5
Siempre Viva Rd On Ramp	Merge	1687	97	1530	132	3	1	B	12.0	B	11.4
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	1784		1662		3		B	11.3	A	10.6
Enrico Fermi Dr Off Ramp	Diverge	1784	394	1662	402	2	2	A (3)	8.1 (3)	A (3)	7.0 (3)
Enrico Fermi Dr On Ramp	Merge	1390	292	1260	396	2	1	B (3)	17.1 (3)	B (3)	16.8 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	1682		1656		3		A	10.7	A	10.5
SR-125 Off Ramp	Diverge	1682	397	1656	539	2	1	B (3)	16.2 (3)	B (3)	15.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concepL The results shown are a conservative estimate of expected traffic operations.

Table 4-17
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	33,100	9.00%	0.55	1,638	4	2	2,000	4,000	5%	0.43	B
	Lone Star Rd to Otay Mesa Rd	33,100	9.00%	0.55	1,638	4	2	2,000	4,000	5%	0.43	B
SR-905	I-5 to I-805	70,000	9.00%	0.55	3,465	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	83,300	9.00%	0.55	4,123	6	3	2,000	6,000	15%	0.79	D
	Otay Mesa Rd to Britannia Blvd	67,500	9.00%	0.55	3,341	6	3	2,000	6,000	15%	0.64	C
	Britannia Blvd to La Media Rd	64,900	9.00%	0.55	3,213	6	3	2,000	6,000	15%	0.62	B
	SR 125/ SR 11 to Siempre Viva Rd	46,000	9.00%	0.55	2,277	6	3	2,000	6,000	15%	0.44	B
	Siempre Viva Rd to International Border (2)	41,000	9.00%	0.55	2,030	6	3	2,000	6,000	15%	0.39	A
I-5	North of SR -905	125,800	9.00%	0.55	6,227	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	69,700	9.00%	0.55	3,450	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	109,300	9.00%	0.55	5,410	12	6	2,000	12,000	1%	0.46	B
I-805	North of SR -905	154,900	9.00%	0.55	7,668	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	102,000	9.00%	0.55	5,049	8	4	2,000	8,000	1%	0.64	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-18

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	1,000	0.03	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	3,000	0.08	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	5,000	0.14	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,000	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	6,000	0.10	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	4,000	0.07	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	3,000	0.08	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	27,000	0.45	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-18

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,000	0.20	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,000	0.06	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,000	0.27	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	6,000	0.18	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	6,000	0.11	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	9,000	0.24	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	8,000	0.22	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-19
Opening Year (2015)
Intersection Capacity Analysis
No Toll/Two Interchanges

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	13.0	A	9.5
Lone Star Rd and Sunroad Blvd	A	5.8	A	6.1
Lone Star Rd and Zinser Rd	A	8.8	A	7.8
Lone Star Rd and Van Center Blvd	A	6.6	A	6.9
Lone Star Rd and Enrico Fermi Dr	B	11.2	A	9.7
Lone Star Rd and Alta Rd	C	24.9	C	23.7
Lone Star Rd and Otay Mesa Rd	B	16.1	B	16.5
Lone Star Rd and Siempre Viva Rd	B	17.0	C	23.1
Zinser Rd and Piper Ranch Rd	B	12.5	B	12.3
Zinser Rd and Sunroad Blvd	C	23.4	C	25.3
Otay Mesa Rd and Britannia Blvd	B	17.6	B	16.6
Otay Mesa Rd and La Media Rd	C	24.1	C	22.4
Otay Mesa Rd and Piper Ranch Rd	C	28.9	C	25.7
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.4	B	11.7
Otay Mesa Rd and SR-125 NB On Ramp	A	2.0	A	4.2
Otay Mesa Rd and Harvest Rd	B	16.1	B	17.1
Otay Mesa Rd and Sanyo Ave	C	22.5	C	20.9
Otay Mesa Rd and Van Center Blvd	A	5.7	A	6.0
Otay Mesa Rd and Enrico Fermi Dr	B	18.2	C	22.8
Otay Mesa Rd and Alta Rd	C	22.2	C	22.0
SR 905 WB Ramps and Britannia Blvd	B	10.6	A	9.1
SR 905 EB Ramps and Britannia Blvd	B	13.3	B	11.5
SR 905 WB Off Ramp and La Media Rd	A	9.4	A	8.8
SR 905 EB Ramps and La Media Rd	B	12.4	B	10.8
SR 11 WB Ramps and Enrico Fermi Dr	B	17.6	B	16.5
SR 11 EB Ramps and Enrico Fermi Dr	B	11.7	B	13.3
SR 11 WB On Ramp and Siempre Viva Rd	A	4.3	A	3.4
SR 11 EB Off Ramp and Siempre Viva Rd	B	12.1	A	6.0
Airway Rd and Britannia Blvd	C	25.5	C	21.0
Airway Rd and La Media Rd	C	22.0	C	28.4
Airway Rd and Sanyo Ave	B	17.5	B	17.2
Airway Rd and Paseo De Las Americas	B	13.8	B	14.7
Airway Rd and Enrico Fermi Dr	C	24.3	C	26.9
Airway Rd and Alta Rd	C	31.6	C	27.6
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.3
Siempre Viva Rd and Otay Center Dr	C	27.0	C	29.2
Siempre Viva Rd and SR-905 SB Ramps	B	11.7	B	11.3
Siempre Viva Rd and SR-905 NB Ramps	B	13.2	B	15.5
Siempre Viva Rd and Paseo De Las Americas	C	25.7	C	26.2
Siempre Viva Rd and Enrico Fermi Dr	C	29.3	C	30.3
Siempre Viva Rd and Alta Rd	C	23.5	C	24.0
Siempre Viva Rd and Airway Rd	C	27.9	C	21.7

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-20
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Alta Rd Off Ramp	Freeway	643		789		2		A	6.3	A	7.7
Alta Rd Off Ramp	Diverge	643	181	789	162	2	1	A (3)	6.0 (3)	A (3)	7.4 (3)
Alta Rd On Ramp	Merge	462	567	627	770	2	1	B (3)	11.5 (3)	B (3)	14.8 (3)
Alta Rd On Ramp to Passenger Car Off Ramp	Weave	1029		1397		3		A (3)	7.9 (3)	B (3)	10.2 (3)
Passenger Car Off Ramp	Diverge	1029	908	1397	1288	2	2	A (3)	1.0 (3)	A (3)	4.4 (3)
South of Alta Rd (Autos Only)	Freeway	908		1288		2		A	8.2	B	11.7
South of Alta Rd (Commercial Only)	Freeway	121		109		2		A	1.3	A	1.2
Westbound											
South of Alta Rd (Autos Only)	Freeway	1528		1386		2		B	13.9	B	12.6
South of Alta Rd (Commercial Only)	Freeway	159		144		2		A	1.7	A	1.5
Passenger Car On Ramp	Merge	159	1528	144	1386	2	1	B (3)	17.1 (3)	B (3)	15.7 (3)
Passenger Car On Ramp to Alta Rd Off Ramp	Weave	1687		1530		3		B (3)	13.2 (3)	B (3)	11.7 (3)
Alta Rd Off Ramp	Diverge	1687	693	1530	630	2	1	B (3)	16.2 (3)	B (3)	14.7 (3)
Alta Rd On Ramp	Merge	994	365	900	396	2	1	B	14.2	B	13.6
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	1413		1296		2		B	13.8	B	12.7
SR-125 Off Ramp	Diverge	1413	381	1296	517	2	1	B	13.5	B	12.4

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-21
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	32,800	9.00%	0.55	1,624	4	2	2,000	4,000	5%	0.43	B
	Lone Star Rd to Otay Mesa Rd	32,800	9.00%	0.55	1,624	4	2	2,000	4,000	5%	0.43	B
SR-905	I-5 to I-805	70,000	9.00%	0.55	3,465	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	83,200	9.00%	0.55	4,118	6	3	2,000	6,000	15%	0.79	C
	Otay Mesa Rd to Britannia Blvd	67,600	9.00%	0.55	3,346	6	3	2,000	6,000	15%	0.64	C
	Britannia Blvd to La Media Rd	65,000	9.00%	0.55	3,218	6	3	2,000	6,000	15%	0.62	B
	SR 125/ SR 11 to Siempre Viva Rd	46,600	9.00%	0.55	2,307	6	3	2,000	6,000	15%	0.44	B
	Siempre Viva Rd to International Border (2)	41,000	9.00%	0.55	2,030	6	3	2,000	6,000	15%	0.39	A
I-5	North of SR -905	125,900	9.00%	0.55	6,232	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	69,700	9.00%	0.55	3,450	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	109,300	9.00%	0.55	5,410	12	6	2,000	12,000	1%	0.46	B
I-805	North of SR -905	154,800	9.00%	0.55	7,663	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	102,000	9.00%	0.55	5,049	8	4	2,000	8,000	1%	0.64	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-22

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	4,000	0.12	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,000	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	5,000	0.08	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	4,000	0.07	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,000	0.08	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	28,000	0.47	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-22

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,000	0.33	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	3,000	0.09	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	9,000	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	City	4 Lane Collector	30,000	12,000	0.40	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	2,000	0.04	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	4,000	0.11	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	6,000	0.16	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,500	0.04	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-23
Opening Year (2015)
Intersection Capacity Analysis
No Toll/One Interchange

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	12.3	A	9.3
Lone Star Rd and Sunroad Blvd	A	4.6	A	6.7
Lone Star Rd and Zinser Rd	A	6.5	A	5.5
Lone Star Rd and Van Center Blvd	A	8.0	A	7.6
Lone Star Rd and Enrico Fermi Dr	A	9.2	A	8.2
Lone Star Rd and Alta Rd	C	22.7	C	23.4
Lone Star Rd and Otay Mesa Rd	B	10.8	B	11.5
Lone Star Rd and Siempre Viva Rd	B	15.4	B	17.1
Zinser Rd and Piper Ranch Rd	B	13.0	B	12.9
Zinser Rd and Sunroad Blvd	C	22.6	C	24.1
Otay Mesa Rd and Britannia Blvd	B	17.6	B	16.6
Otay Mesa Rd and La Media Rd	C	24.4	C	20.2
Otay Mesa Rd and Piper Ranch Rd	C	22.9	C	28.3
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.8	A	7.0
Otay Mesa Rd and SR-125 NB On Ramp	A	1.9	A	3.3
Otay Mesa Rd and Harvest Rd	B	12.5	B	13.8
Otay Mesa Rd and Sanyo Ave	B	17.0	B	17.9
Otay Mesa Rd and Van Center Blvd	A	4.9	A	5.0
Otay Mesa Rd and Enrico Fermi Dr	B	19.0	C	22.5
Otay Mesa Rd and Alta Rd	B	17.6	B	18.3
SR 905 WB Ramps and Britannia Blvd	B	10.6	A	9.1
SR 905 EB Ramps and Britannia Blvd	B	13.3	B	11.5
SR 905 WB Off Ramp and La Media Rd	A	9.0	A	8.9
SR 905 EB Ramps and La Media Rd	B	12.4	B	15.4
SR 11 WB Ramps and Alta Rd	B	15.7	B	15.1
SR 11 EB Ramps and Alta Rd	B	10.7	A	9.9
Airway Rd and Britannia Blvd	C	25.5	C	21.0
Airway Rd and La Media Rd	C	22.3	C	26.4
Airway Rd and Sanyo Ave	B	17.5	B	17.2
Airway Rd and Paseo De Las Americas	B	14.6	B	15.8
Airway Rd and Enrico Fermi Dr	C	21.3	C	21.7
Airway Rd and Alta Rd	C	20.8	B	19.4
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.7	C	21.1
Siempre Viva Rd and Otay Center Dr	C	29.0	C	29.3
Siempre Viva Rd and SR-905 SB Ramps	B	11.9	B	13.7
Siempre Viva Rd and SR-905 NB Ramps	B	13.8	B	14.5
Siempre Viva Rd and Paseo De Las Americas	C	24.6	C	24.8
Siempre Viva Rd and Enrico Fermi Dr	C	22.1	C	22.0
Siempre Viva Rd and Alta Rd	C	22.4	C	23.9
Siempre Viva Rd and Airway Rd	C	27.9	C	25.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-24
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 to Enrico Fermi Dr	Freeway	1029		1397		3		A	5.9	A	7.2
Enrico Fermi Dr to Siempre Viva Dr	Freeway	1029		1397		3		A	6.6	A	8.6
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1029	121	1397	109	2	2	A (3)	1.0 (3)	A (3)	3.4 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	121		109		2		A	1.1	A	1.0
South of Siempre Viva Rd (Auto's Only)	Freeway	908		1288		2		A	7.1	A	10.1
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	1518		1377		2		B	12.1	A	10.9
South of Siempre Viva Rd (Commercial Only)	Freeway	159		144		2		A	1.4	A	1.4
Siempre Viva Rd to Enrico Fermi Dr	Freeway	1677		1521		3		A	9.8	A	9.2
Enrico Fermi Dr to SR-125 Off Ramp	Freeway	1677		1521		3		A	8.9	A	8.8
SR-125 Off Ramp	Diverge	1677	340	1521	462	2	1	B (3)	13.2 (3)	B (3)	13.4 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-25
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	34,600	9.00%	0.55	1,713	4	2	2,000	4,000	5%	0.45	B
	Lone Star Rd to Otay Mesa Rd	34,600	9.00%	0.55	1,713	4	2	2,000	4,000	5%	0.45	B
SR-905	I-5 to I-805	70,500	9.00%	0.55	3,490	6	3	2,000	6,000	15%	0.67	C
	I-805 to Otay Mesa Rd	84,400	9.00%	0.55	4,178	6	3	2,000	6,000	15%	0.80	D
	Otay Mesa Rd to Britannia Blvd	68,600	9.00%	0.55	3,396	6	3	2,000	6,000	15%	0.65	C
	Britannia Blvd to La Media Rd	66,000	9.00%	0.55	3,267	6	3	2,000	6,000	15%	0.63	C
	SR 125/ SR 11 to Siempre Viva Rd	48,200	9.00%	0.55	2,386	6	3	2,000	6,000	15%	0.46	B
	Siempre Viva Rd to International Border (2)	41,000	9.00%	0.55	2,030	6	3	2,000	6,000	15%	0.39	A
I-5	North of SR -905	125,700	9.00%	0.55	6,222	8	4	2,000	8,000	10%	0.86	D
	SR-905 to I-805	69,800	9.00%	0.55	3,455	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	109,300	9.00%	0.55	5,410	12	6	2,000	12,000	1%	0.46	B
I-805	North of SR -905	155,200	9.00%	0.55	7,682	8	4	2,000	8,000	10%	1.06	F
	SR-905 to I-5	102,000	9.00%	0.55	5,049	8	4	2,000	8,000	1%	0.64	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-26

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	13,000	0.22	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	9,000	0.15	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	7,000	0.12	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,200	0.03	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	9,000	0.23	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	9,000	0.15	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	14,000	0.23	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	30,000	0.50	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,000	0.13	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-26

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	13,000	0.33	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	15,000	0.25	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	9,000	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	6,000	0.18	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	5,000	0.09	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	5,000	0.14	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	-	-	-
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	400	0.01	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-27
Opening Year (2015)
Intersection Capacity Analysis
No Toll/No Interchanges

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	A	7.7	A	7.0
Lone Star Rd and Sunroad Blvd	A	8.2	A	5.9
Lone Star Rd and Zinser Rd	A	8.1	A	7.2
Lone Star Rd and Van Center Blvd	A	7.3	A	7.9
Lone Star Rd and Enrico Fermi Dr	B	11.4	A	10.0
Lone Star Rd and Alta Rd	C	24.9	C	23.5
Lone Star Rd and Otay Mesa Rd	B	10.8	B	11.5
Lone Star Rd and Siempre Viva Rd	B	15.4	B	17.1
Zinser Rd and Piper Ranch Rd	B	14.1	B	11.3
Zinser Rd and Sunroad Blvd	C	23.4	C	25.3
Otay Mesa Rd and Britannia Blvd	B	17.4	B	17.2
Otay Mesa Rd and La Media Rd	C	26.2	C	21.0
Otay Mesa Rd and Piper Ranch Rd	C	24.4	C	27.5
Otay Mesa Rd and SR-125 SB Off Ramp	B	11.8	A	7.5
Otay Mesa Rd and SR-125 NB On Ramp	A	1.9	A	3.5
Otay Mesa Rd and Harvest Rd	B	14.3	B	15.5
Otay Mesa Rd and Sanyo Ave	C	20.5	C	21.0
Otay Mesa Rd and Van Center Blvd	A	5.9	A	6.2
Otay Mesa Rd and Enrico Fermi Dr	B	17.7	C	21.9
Otay Mesa Rd and Alta Rd	C	24.9	C	23.5
SR 905 WB Ramps and Britannia Blvd	B	12.5	A	8.6
SR 905 EB Ramps and Britannia Blvd	B	13.5	B	11.3
SR 905 WB Off Ramp and La Media Rd	A	8.2	A	8.5
SR 905 EB Ramps and La Media Rd	B	12.8	B	11.2
Airway Rd and Britannia Blvd	C	25.5	C	21.0
Airway Rd and La Media Rd	C	23.3	C	28.7
Airway Rd and Sanyo Ave	B	18.3	B	17.7
Airway Rd and Paseo De Las Americas	B	15.2	B	16.1
Airway Rd and Enrico Fermi Dr	C	20.7	C	21.4
Airway Rd and Alta Rd	C	28.1	C	26.4
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.6
Siempre Viva Rd and Otay Center Dr	C	27.4	C	29.9
Siempre Viva Rd and SR-905 SB Ramps	B	12.5	B	11.5
Siempre Viva Rd and SR-905 NB Ramps	B	13.1	B	14.1
Siempre Viva Rd and Paseo De Las Americas	C	26.3	C	27.3
Siempre Viva Rd and Enrico Fermi Dr	C	25.6	C	22.9
Siempre Viva Rd and Alta Rd	C	23.3	C	24.0
Siempre Viva Rd and Airway Rd	C	27.9	C	25.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-28
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	529	396	771	360	2	1	A	8.5	A	9.6
SR-125 On Ramp to Enrico Fermi Dr Off Ramp	Freeway	925		1131		2		A	7.0	A	8.2
Enrico Fermi Dr Off Ramp	Diverge	925	277	1131	252	2	1	A	6.8	A	7.9
Enrico Fermi Dr On Ramp	Merge (3)	648	342	879	420	2	1	B	10.3	B	13.2
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	990		1299		2	1	A	6.8	A	7.9
Siempre Viva Rd Off Ramp	Diverge	990	99	1299	90	2	1	A	6.8	A	7.9
Siempre Viva Rd to Passenger Car Off Ramp	Merge (3)	891	105	1209	94	2	1	B	10.3	B	13.2
South of Siempre Viva Rd (Auto's Only)	Freeway	786		1115		2		A	7.1	A	10.1
South of Siempre Vivia Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
Westbound											
South of Siempre Vivia Rd (Auto's Only)	Freeway	1330		1206		2		B	12.1	A	10.9
South of Siempre Vivia Rd (Commercial Only)	Freeway	139		137		2		A	1.4	A	1.4
Passenger Car On Ramp to Siempre Vivia Rd On Ramp	Weave (5)	1469		1343		3		B	10.0	A	9.0
Siempre Vivia Rd On Ramp	Merge	1469	81	1343	110	2	1	B	14.1	B	12.8
Siempre Viva Rd On Ramp to Enrico Fermi Dr Off Ramp	Freeway	1550		1453		2	1	B	12.3	B	12.4
Enrico Fermi Dr Off Ramp	Diverge	1550	378	1453	380	2		B	11.3	B	11.3
Enrico Fermi Dr On Ramp	Merge	1172	227	1073	308	2	1	B	12.3	B	12.4
Enrico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	1399		1381		2		B	11.3	B	11.3
SR-125 Off Ramp	Diverge	1399	324	1381	440	2	1	B	10.8	B	11.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Ramp Capacity analysis is shown for information only, since this is technically part of a weaving section
(4) For weaving volumes, see Figure 4 -15e. The ramp to ramp movement was assumed to be 529 in the AM peak hour and 477 in the PM peak hour. The weaving distance is 2200ft
(5) For weaving volumes, see Figure 4 -15e. The ramp to ramp movement was assumed to be 364 in the AM peak hour and 517 in the PM peak hour. The weaving distance is 1400ft

Table 4-29
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	33,800	9.00%	0.55	1,673	4	2	2,000	4,000	5%	0.44	B
	Lone Star Rd to Otay Mesa Rd	33,800	9.00%	0.55	1,673	4	2	2,000	4,000	5%	0.44	B
SR-905	I-5 to I-805	69,100	9.00%	0.55	3,420	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	81,200	9.00%	0.55	4,019	6	3	2,000	6,000	15%	0.77	C
	Otay Mesa Rd to Britannia Blvd	65,400	9.00%	0.55	3,237	6	3	2,000	6,000	15%	0.62	C
	Britannia Blvd to La Media Rd	62,400	9.00%	0.55	3,089	6	3	2,000	6,000	15%	0.59	B
	SR 125/ SR 11 to Siempre Viva Rd	45,400	9.00%	0.55	2,247	6	3	2,000	6,000	15%	0.43	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	81,000	9.00%	0.55	4,010	8	4	2,000	8,000	1%	0.51	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	155,100	9.00%	0.55	7,677	8	4	2,000	8,000	10%	1.06	F
	SR-905 to I-5	103,700	9.00%	0.55	5,133	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-30

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	1,700	0.04	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,500	0.07	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,200	0.11	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,600	0.11	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,400	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	4,700	0.08	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	2,800	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,200	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	6,800	0.17	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	700	0.02	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,400	0.04	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	500	0.01	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,200	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,600	0.14	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,900	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	26,200	0.44	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	6,000	0.10	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,200	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,200	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-30

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	11,900	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,600	0.27	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,000	0.22	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,400	0.21	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,300	0.16	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,400	0.34	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,200	0.06	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	7,900	0.26	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,900	0.13	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	5,000	0.15	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	5,800	0.19	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	5,200	0.09	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	7,700	0.21	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,100	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	700	0.02	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	C
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	600	0.02	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-31
Opening Year (2015)
Intersection Capacity Analysis
SR-125 Connector/Two Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and Piper Ranch Rd	A	8.4	A	7.1
Lone Star Rd and Sun Road Blvd	A	3.3	A	6.1
Lone Star Rd and Zinser Rd	B	11.4	B	12.8
Lone Star Rd and Vann Center Blvd	A	7.4	A	7.6
Lone Star Rd and Enrico Fermi Dr	B	10.7	A	8.4
Lone Star Rd and Alta Rd	B	16.2	B	16.3
Lone Star Rd and Otay Mesa Rd	A	7.7	A	9.7
Lone Star Rd and Siempre Viva Rd	B	11.2	B	12.8
Zinser Rd and Piper Ranch Rd	B	10.2	B	10.4
Zinser Rd and Sun Road Blvd	B	15.6	B	17.5
Otay Mesa Rd and Britannia Blvd	B	12.0	B	13.3
Otay Mesa Rd and La Media Rd	C	23.2	B	18.9
Otay Mesa Rd and Piper Ranch Rd	C	23.2	C	21.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	8.5	B	13.6
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	2.5
Otay Mesa Rd and Harvest Rd	B	12.4	B	11.2
Otay Mesa Rd and Sanyo Ave	B	13.3	B	13.0
Otay Mesa Rd and Vann Center Blvd	A	6.0	A	5.2
Otay Mesa Rd and Enrico Fermi Rd	B	13.5	B	16.5
Otay Mesa Rd and Alta Rd	B	11.8	B	11.4
SR 905 WB Ramps and Britannia Blvd	A	7.5	A	8.3
SR 905 Britannia Blvd EB Ramps	B	10.3	B	10.7
SR 905 WB Off Ramp and La Media Rd	A	5.6	A	5.7
SR 905 EB Ramps and La Media Rd	B	10.2	B	11.5
SR 11 WB Ramps Enrico Fermi Dr	B	12.3	B	13.1
SR 11 EB Ramps and Enrico Fermi Dr	B	11.8	B	12.7
SR 11 WB On Ramp and Siempre Viva Rd	A	1.9	A	5.4
SR 11 EB Off Ramp and Siempre Viva Rd	B	10.5	A	8.0
Airway Rd and Britannia Blvd	C	24.5	B	18.2
Airway Rd and La Media Rd	B	18.9	C	25.0
Airway Rd and Sanyo Ave	B	16.3	B	15.9
Airway Rd and Paseo De Las Americas	A	6.9	A	8.1
Airway Rd and Enrico Fermi Dr	B	15.7	B	16.0
Airway Rd and Alta Rd	B	13.8	B	14.0
Siempre Viva Rd and Britannia Blvd	B	16.0	B	15.0
Siempre Viva Rd and La Media Rd	B	15.2	B	15.0
Siempre Viva Rd and Otay Center Dr	C	25.3	C	25.2
Siempre Viva Rd and SR-905 SB Ramps	A	7.3	A	7.5
Siempre Viva Rd and SR-905 NB Ramps	A	9.6	B	11.6
Siempre Viva Rd and Paseo De Las Americas	C	22.4	C	23.5
Siempre Viva Rd and Enrico Fermi Dr	B	19.4	B	19.0
Siempre Viva Rd and Alta Rd	B	14.6	B	14.2
Siempre Viva Rd and Airway Rd	B	15.9	B	15.4

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-31a
Opening Year (2015) Intersection Capacity Analysis
SR-125 Connector/Two Interchange Design Variation
ILV Methodology

Intersection	AM Peak Hour		PM Peak Hour	
	SUM OF ILV	Capacity Result	SUM OF ILV	Capacity Result
Enrico Fermi Dr and SR - 11 WB Ramp	408	UNDER	474	UNDER
Enrico Fermi Dr and SR - 11 EB Ramp	393	UNDER	457	UNDER
Sempre Viva Rd and SR - 11 NB Ramp	123	UNDER	126	UNDER
Sempre Viva Rd and SR - 11 SB Ramp	132	UNDER	115	UNDER

Notes:

SUM OF ILV < 1200 : Intersection operates under capacity.
SUM OF ILV > 1200 and < 1500 : Intersection operates near capacity.
SUM OF ILV > 1500 : Intersection operates over capacity.

Table 4-32
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	354	366	506	333	2	1	A	8.5	A	9.6
SR-125 On Ramp to Alta Rd Off Ramp	Freeway	720		839		2		A	7.0	A	8.2
Alta Rd Off Ramp	Diverge	720	307	839	279	2	1	A	6.8	A	7.9
Alta Rd On Ramp	Merge (3)	413	478	560	649	2	1	B	10.3	B	13.2
Alta Rd On Ramp to Siempre Viva Rd	Freeway	891		1209		2	1	A	6.8	A	7.9
Siempre Viva Rd to Passenger Car Off Ramp	Freeway	891	105	1209	94	2	1	B	10.3	B	13.2
South of Siempre Viva Rd (Auto's Only)	Freeway	786		1115		2		A	7.1	A	10.1
South of Siempre Vivia Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
Westbound											
South of Siempre Vivia Rd (Auto's Only)	Freeway	1330		1206		2		B	12.1	A	10.9
South of Siempre Vivia Rd (Commercial Only)	Freeway	139		137		2		A	1.4	A	1.4
Passenger Car On Ramp to Siempre Vivia Rd	Weave (5)	1469		1343		3		B	10.0	A	9.0
Siempre Viva Rd On Ramp to Alta Rd Off Ramp	Freeway	1469		1343		2	1	B	12.3	B	12.4
Alta Rd Off Ramp	Diverge	1469	584	1343	531	2		B	11.3	B	11.3
Alta Rd On Ramp	Merge	885	251	812	341	2	1	B	12.3	B	12.4
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	1136		1153		2		B	11.3	B	11.3
SR-125 Off Ramp	Diverge	1136	300	1153	407	2	1	B	10.8	B	11.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Ramp Capacity analysis is shown for information only, since this is technically part of a weaving section
(4) For weaving volumes, see Figure 4 -15e. The ramp to ramp movement was assumed to be 529 in the AM peak hour and 477 in the PM peak hour. The weaving distance is 2200ft
(5) For weaving volumes, see Figure 4 -15e. The ramp to ramp movement was assumed to be 364 in the AM peak hour and 517 in the PM peak hour. The weaving distance is 1400ft

Table 4-33
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	33,800	9.00%	0.55	1,673	4	2	2,000	4,000	5%	0.44	B
	Lone Star Rd to Otay Mesa Rd	33,800	9.00%	0.55	1,673	4	2	2,000	4,000	5%	0.44	B
SR-905	I-5 to I-805	69,000	9.00%	0.55	3,416	6	3	2,000	6,000	15%	0.65	C
	I-805 to Otay Mesa Rd	80,800	9.00%	0.55	4,000	6	3	2,000	6,000	15%	0.77	C
	Otay Mesa Rd to Britannia Blvd	65,000	9.00%	0.55	3,218	6	3	2,000	6,000	15%	0.62	B
	Britannia Blvd to La Media Rd	62,000	9.00%	0.55	3,069	6	3	2,000	6,000	15%	0.59	B
	SR 125/ SR 11 to Siempre Viva Rd	46,200	9.00%	0.55	2,287	6	3	2,000	6,000	15%	0.44	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,700	9.00%	0.55	3,500	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	154,900	9.00%	0.55	7,668	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,700	9.00%	0.55	5,133	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-34

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,200	0.06	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,100	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,200	0.06	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,400	0.10	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,200	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,500	0.13	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	5,100	0.09	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	2,800	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,600	0.07	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,200	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	6,900	0.17	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	700	0.02	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,400	0.04	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,200	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,600	0.14	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,900	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	26,200	0.44	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	6,300	0.11	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,600	0.07	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-34

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	11,900	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,600	0.27	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,200	0.22	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,300	0.16	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,400	0.34	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,700	0.08	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,400	0.28	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,700	0.12	A
Sanyo Ave	Otay Mesa to Airway Rd	City	4 Lane Collector	30,000	3,200	0.11	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	5,800	0.19	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	2,700	0.05	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	900	0.02	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	3,400	0.09	A
	South of Siempre Viva Rd	County	Major Road	37,000	700	0.02	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	C
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	3,500	0.09	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	5,900	0.16	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,500	0.04	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-35
Opening Year (2015)
Intersection Capacity Analysis
Toll/One Interchange

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and Piper Ranch Rd	A	9.9	A	6.5
Lone Star Rd and Sun Road Blvd	A	4.6	A	8.3
Lone Star Rd and Zinser Rd	B	11.8	B	14.9
Lone Star Rd and Vann Center Blvd	A	8.1	A	7.7
Lone Star Rd and Enrico Fermi Dr	A	9.6	A	7.7
Lone Star Rd and Alta Rd	B	15.6	B	16.8
Otay Mesa Rd and Lone Star Rd	A	8.0	A	8.5
Siempre Viva Rd and Lone Stare Rd	B	10.2	B	13.8
Zinser Rd and Piper Ranch Rd	B	10.2	B	13.7
Zinser Rd and Sun Road Blvd	B	16.3	B	19.1
Otay Mesa Rd and Britannia Blvd	B	12.3	B	13.2
Otay Mesa Rd and La Media Rd	C	23.1	B	19
Otay Mesa Rd and Piper Ranch Rd	C	22.8	C	21.6
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.5	B	11.7
Otay Mesa Rd and SR-125 NB On Ramp	A	1.4	A	2.8
Otay Mesa Rd and Harvest Rd	B	13.4	B	12.6
Otay Mesa Rd and Sanyo Ave	B	12.2	B	13.1
Otay Mesa Rd and Vann Center Blvd	A	5.1	A	5.2
Otay Mesa Rd and Enrico Fermi Rd	B	14.2	B	18.2
Otay Mesa Rd and Alta Rd	B	13.0	B	13.8
SR 905 Britannia Blvd WB Ramps	A	6.1	A	8.1
SR 905 Britannia Blvd EB Ramps	B	11.6	B	10.5
SR 905 La Media Rd WB Off Ramp	A	6.7	A	6.4
SR 905 La Media Rd EB Ramps	B	11.9	B	10.6
SR 11 Alta Rd Dr WB Ramps	B	13.0	B	12.3
SR 11 Alta Rd Dr EB Ramps	B	14.0	B	11.8
Airway Rd and Britannia Blvd	C	24.5	B	18.2
Airway Rd and La Media Rd	B	19.4	C	24.7
Airway Rd and Sanyo Ave	B	16.2	B	15.9
Airway Rd and Paseo De Las Americas	A	6.9	A	8.1
Airway Rd and Enrico Fermi Dr	B	15.0	B	15.7
Airway Rd and Alta Rd	B	14.8	B	13.6
Siempre Viva Rd and Britannia Blvd	B	16.0	B	15.0
Siempre Viva Rd and La Media Rd	B	14.9	B	15.2
Siempre Viva Rd and Otay Center Dr	C	27.6	C	25.3
Siempre Viva Rd and SR-905 SB Ramps	A	6.2	A	7.2
Siempre Viva Rd and SR-905 NB Ramps	B	12.4	B	13.7
Siempre Viva Rd and Paseo De Las Americas	C	24.6	C	26.1
Siempre Viva Rd and Enrico Fermi Dr	B	19.4	B	19.0
Siempre Viva Rd and Alta Rd	B	14.1	B	14.8
Siempre Viva Rd and Airway Rd	B	15.9	B	15.4

Notes:

All intersections will be signalized for all 2015 Conditions

">80.0" – Exceeds 80 seconds

Table 4-35a
Opening Year (2015) Intersection Capacity Analysis
SR-125 Connector/One Interchange Design Variation
ILV Methodology

Intersection	AM Peak Hour		PM Peak Hour	
	SUM OF ILV	Capacity Result	SUM OF ILV	Capacity Result
Alta Rd and SR - 11 WB Ramp	417	UNDER	473	UNDER
Alta Rd and SR - 11 EB Ramp	574	UNDER	585	UNDER

Notes:

SUM OF ILV < 1200 : Intersection operates under capacity.
SUM OF ILV > 1200 and < 1500 : Intersection operates near capacity.
SUM OF ILV > 1500 : Intersection operates over capacity.

Table 4-36
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	525	366	876	333	2	1	B	15.9	C	20.9
SR-125 On Ramp to Siempre Viva Rd	Freeway	891		1209		2		B	15.4	C	21.0
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.9	A	1.7
South of Siempre Viva Rd (Auto's Only)	Freeway	786		115		2		B	13.6	C	19.3
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	1320		1197		2		C	22.9	C	20.8
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	2.5	A	2.3
Siempre Viva Rd to SR-125 Off Ramp	Freeway	1459		1323		2		C	25.3	C	23.0
SR-125 Off Ramp	Diverge	1459	300	1323	407	2	1	D	31.0	D	31.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 4-37
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	35,000	9.00%	0.55	1,733	4	2	2,000	4,000	5%	0.45	B
	Lone Star Rd to Otay Mesa Rd	35,000	9.00%	0.55	1,733	4	2	2,000	4,000	5%	0.45	B
SR-905	I-5 to I-805	69,700	9.00%	0.55	3,450	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	82,700	9.00%	0.55	4,094	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	67,000	9.00%	0.55	3,317	6	3	2,000	6,000	15%	0.64	C
	Britannia Blvd to La Media Rd	64,200	9.00%	0.55	3,178	6	3	2,000	6,000	15%	0.61	B
	SR 125/ SR 11 to Siempre Viva Rd	49,000	9.00%	0.55	2,426	6	3	2,000	6,000	15%	0.46	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,700	9.00%	0.55	3,500	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	155,700	9.00%	0.55	7,707	8	4	2,000	8,000	10%	1.06	F
	SR-905 to I-5	103,800	9.00%	0.55	5,138	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-38

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,200	0.06	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,200	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	5,000	0.14	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,800	0.21	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	8,700	0.15	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	7,400	0.12	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,300	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,400	0.04	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,300	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,800	0.20	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	500	0.01	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,700	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,200	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,500	0.14	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,500	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	29,900	0.50	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,100	0.14	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,100	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-38

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,100	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,600	0.27	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,900	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	14,700	0.25	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	7,000	0.18	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,900	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,900	0.08	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	9,100	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	5,000	0.17	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	3,500	0.10	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	5,900	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	4,900	0.09	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	4,500	0.12	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,600	0.12	A
	South of Siempre Viva Rd	County	Major Road	37,000	400	0.01	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	C
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	400	0.01	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-39
Opening Year (2015)
Intersection Capacity Analysis
SR-125 Connector/No Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and Piper Ranch Rd	B	10.3	A	6.7
Lone Star Rd and Sunroad Blvd	A	3.5	A	8.4
Lone Star Rd and Zinser Rd	B	12.6	B	15.0
Lone Star Rd and Van Center Blvd	A	7.8	A	7.7
Lone Star Rd and Enrico Fermi Dr	B	11.8	A	8.9
Lone Star Rd and Alta Rd	B	17.0	B	17.0
Lone Star Rd and Otay Mesa Rd	B	12.5	B	12.6
Lone Star Rd and Siempre Viva Rd	A	8.8	B	10.1
Zinser Rd and Piper Ranch Rd	B	10.0	B	10.9
Zinser Rd and Sunroad Blvd	B	16.2	B	19.6
Otay Mesa Rd and Britannia Blvd	B	12.6	B	13.5
Otay Mesa Rd and La Media Rd	C	24.3	B	19.4
Otay Mesa Rd and Piper Ranch Rd	C	25.1	C	24.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.3	A	6.7
Otay Mesa Rd and SR-125 NB On Ramp	A	1.9	A	2.4
Otay Mesa Rd and Harvest Rd	B	13.8	B	13.3
Otay Mesa Rd and Sanyo Ave	B	13.0	B	11.6
Otay Mesa Rd and Van Center Blvd	A	8.6	A	8.0
Otay Mesa Rd and Enrico Fermi Dr	B	13.5	B	10.8
Otay Mesa Rd and Alta Rd	B	15.8	B	16.9
SR 905 WB Ramps and Britannia Blvd	A	6.1	A	8.4
SR 905 EB Ramps and Britannia Blvd	B	10.8	B	10.1
SR 905 WB Off Ramp and La Media Rd	A	5.2	A	5.0
SR 905 EB Ramps and La Media Rd	B	10.0	A	9.9
Airway Rd and Britannia Blvd	C	21.0	B	16.9
Airway Rd and La Media Rd	B	19.7	C	26.2
Airway Rd and Sanyo Ave	B	16.6	B	16.0
Airway Rd and Paseo De Las Americas	A	6.9	B	11.5
Airway Rd and Enrico Fermi Dr	B	15.2	C	22.6
Airway Rd and Alta Rd	B	15.3	B	15.3
Siempre Viva Rd and Britannia Blvd	B	16.2	B	15.2
Siempre Viva Rd and La Media Rd	B	16.3	B	15.8
Siempre Viva Rd and Otay Center Dr	B	15.7	C	26.8
Siempre Viva Rd and SR-905 SB Ramps	A	6.3	A	6.0
Siempre Viva Rd and SR-905 NB Ramps	A	9.9	A	7.7
Siempre Viva Rd and Paseo De Las Americas	C	24.4	D	52.0
Siempre Viva Rd and Enrico Fermi Dr	C	20.2	B	19.5
Siempre Viva Rd and Alta Rd	C	29.8	C	29.8
Siempre Viva Rd and Airway Rd	B	16.6	B	16.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-40
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	822	446	516	405	2	1	B	13.3	B	10.3
SR-125 On Ramp to Enrico Fermi Dr	Freeway	1268		921		3		A	8.1	A	5.8
Enrico Fermi Dr Off Ramp	Diverge	1268	396	921	360	3	2	A (3)	-1.6 (3)	A (3)	-3.3 (3)
Enrico Fermi Dr On Ramp	Merge	872	205	561	252	2	1	B (3)	12.2 (3)	A (3)	9.7 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	1077		813		3		A	7.1	A	5.4
Siempre Viva Rd Off Ramp	Diverge	1077	178	813	162	2	2	A (3)	1.3 (3)	A (3)	-1.3 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Freeway	899		651		2		A (3)	9.2 (3)	A (3)	6.6 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
South of Siempre Viva Rd (Autos Only)	Freeway	794		557		2		A	7.2	A	5.1
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1340		1215		2		B	12.2	B	11.0
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	1.4	A	1.3
Siempre Viva Rd and Passenger Car Off Ramp	Freeway	1479		1341		3		A	9.4	A	8.5
Siempre Viva Rd On Ramp	Merge	1479	146	1341	198	2	2	B (3)	10.4 (3)	A (3)	9.6 (3)
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	1625		1539		3		A	10.3	A	9.8
Enrico Fermi Dr Off Ramp	Diverge	1625	227	1539	228	2	2	A (3)	6.6 (3)	A (3)	5.8 (3)
Enrico Fermi Dr On Ramp	Merge	1398	324	1311	440	2	1	B (3)	17.4 (3)	B (3)	17.6 (3)
Enrico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	1722		1751		3		A	10.9	B	11.1
SR-125 Off Ramp	Diverge	1722	318	1751	495	2	1	B (3)	16.5 (3)	B (3)	16.8 (3)
SR-905 Off Ramp	Diverge	1404	72	1256	99	2	1	B (3)	13.4 (3)	B (3)	12.0 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-41
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATON

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	35,600	9.00%	0.55	1,762	4	2	2,000	4,000	5%	0.46	B
	Lone Star Rd to Otay Mesa Rd	35,600	9.00%	0.55	1,762	4	2	2,000	4,000	5%	0.46	B
SR-905	I-5 to I-805	69,200	9.00%	0.55	3,425	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	82,500	9.00%	0.55	4,084	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	66,700	9.00%	0.55	3,302	6	3	2,000	6,000	15%	0.63	C
	Britannia Blvd to La Media Rd	64,100	9.00%	0.55	3,173	6	3	2,000	6,000	15%	0.61	B
	SR 125/ SR 11 to Siempre Viva Rd	46,600	9.00%	0.55	2,307	6	3	2,000	6,000	15%	0.44	B
	Siempre Viva Rd to International Border (2)	42,000	9.00%	0.55	2,079	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,600	9.00%	0.55	3,495	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	153,900	9.00%	0.55	7,618	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,800	9.00%	0.55	5,138	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-42

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	1,000	0.03	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	3,000	0.08	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,000	0.11	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,000	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	4,000	0.07	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	0	0.00	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,000	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,000	0.03	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	9,000	0.15	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	11,000	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	24,000	0.40	A
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	4,000	0.07	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-42

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,000	0.20	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,000	0.15	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,000	0.06	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,000	0.27	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	6,000	0.18	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	6,000	0.11	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	9,000	0.24	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-43
Opening Year (2015)
Intersection Capacity Analysis
Full Interchange/Two Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	13.1	A	9.2
Lone Star Rd and Sunroad Blvd	A	6.4	A	5.5
Lone Star Rd and Zinser Rd	C	20.9	B	13.8
Lone Star Rd and Van Center Blvd	A	5.4	A	6.4
Lone Star Rd and Enrico Fermi Dr	A	9.3	B	10.1
Lone Star Rd and Alta Rd	B	17.1	C	24.7
Lone Star Rd and Otay Mesa Rd	B	13.4	B	17.9
Lone Star Rd and Siempre Viva Rd	B	18.4	C	22.4
Zinser Rd and Piper Ranch Rd	B	11.9	B	12.3
Zinser Rd and Sunroad Blvd	B	16.3	C	25.3
Otay Mesa Rd and Britannia Blvd	B	16.7	B	16.6
Otay Mesa Rd and La Media Rd	C	23.9	C	21.3
Otay Mesa Rd and Piper Ranch Rd	C	24.0	B	19.2
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.7	B	12.4
Otay Mesa Rd and SR-125 NB On Ramp	A	3.0	A	3.7
Otay Mesa Rd and Harvest Rd	B	12.8	B	12.9
Otay Mesa Rd and Sanyo Ave	C	20.6	C	21.5
Otay Mesa Rd and Van Center Blvd	A	5.4	A	5.8
Otay Mesa Rd and Enrico Fermi Dr	B	18.0	C	21.0
Otay Mesa Rd and Alta Rd	B	18.5	C	21.3
SR 905 WB Ramps and Britannia Blvd	B	11.3	A	8.8
SR 905 EB Ramps and Britannia Blvd	B	14.1	B	11.5
SR 905 WB Off Ramp and La Media Rd	A	7.3	A	7.9
SR 905 EB Ramps and La Media Rd	B	12.7	B	12.5
SR 11 WB Ramps and Enrico Fermi Dr	B	12.3	B	13.4
SR 11 EB Ramps and Enrico Fermi Dr	B	15.6	B	14.4
SR 11 WB On Ramp and Siempre Viva Rd	A	6.8	A	4.8
SR 11 EB Off Ramp and Siempre Viva Rd	A	7.0	B	12.1
Airway Rd and Britannia Blvd	C	27.7	C	22.1
Airway Rd and La Media Rd	C	21.6	C	25.7
Airway Rd and Sanyo Ave	B	17.7	B	17.2
Airway Rd and Paseo De Las Americas	A	8.0	C	20.5
Airway Rd and Enrico Fermi Dr	B	16.8	B	19.4
Airway Rd and Alta Rd	B	18.7	C	26.0
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.6
Siempre Viva Rd and Otay Center Dr	C	26.6	C	30.0
Siempre Viva Rd and SR-905 SB Ramps	B	13.1	B	11.7
Siempre Viva Rd and SR-905 NB Ramps	B	12.6	B	13.1
Siempre Viva Rd and Paseo De Las Americas	C	25.0	C	25.7
Siempre Viva Rd and Enrico Fermi Dr	C	29.0	C	31.0
Siempre Viva Rd and Alta Rd	B	17.2	B	19.2
Siempre Viva Rd and Airway Rd	C	23.0	C	23.3

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-44
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	584	426	292	387	2	1	B	11.0	A	8.1
SR-125 On Ramp to Alta Rd	Freeway	1010		679		2		A	9.9	A	6.6
Alta Rd Off Ramp	Diverge	1010	297	679	270	2	2	A (3)	0.6 (3)	A (3)	-2.6 (3)
Alta Rd On Ramp	Merge	713	186	409	242	2	1	B (3)	10.5 (3)	A (3)	8.2 (3)
Alta Rd On Ramp to Siempre Viva Rd	Freeway	899		651		3		A	5.7	A	4.1
Siempre Viva Rd and Passenger Car Off Ramp	Freeway	899		651		2		A (3)	8.8 (3)	A (3)	6.4 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
South of Siempre Viva Rd (Autos Only)	Freeway	794		557		2		A	7.2	A	5.1
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	1340		1215		2		B	12.2	B	11.0
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	1.4	A	1.3
Siempre Viva Rd to Alta Rd Off Ramp	Freeway	1479		1341		3		A	9.4	A	8.5
Alta Rd Off Ramp	Diverge	1479	228	1341	207	2	2	A (3)	5.2 (3)	A (3)	3.8 (3)
Atla Rd On Ramp	Merge	1251	243	1134	330	2	1	B (3)	15.4 (3)	B (3)	15.1 (3)
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	1494		1464		3		A	9.5	A	9.3
SR-125 Off Ramp	Diverge	1494	304	1464	473	2	1	B (3)	14.3 (3)	B (3)	14.0 (3)
SR-905 Off Ramp	Diverge	1190	72	991	99	2	1	B (3)	11.4 (3)	A (3)	9.4 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 4-45
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	35,600	9.00%	0.55	1,762	4	2	2,000	4,000	5%	0.46	B
	Lone Star Rd to Otay Mesa Rd	35,600	9.00%	0.55	1,762	4	2	2,000	4,000	5%	0.46	B
SR-905	I-5 to I-805	69,100	9.00%	0.55	3,420	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	82,400	9.00%	0.55	4,079	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	66,500	9.00%	0.55	3,292	6	3	2,000	6,000	15%	0.63	C
	Britannia Blvd to La Media Rd	63,800	9.00%	0.55	3,158	6	3	2,000	6,000	15%	0.61	B
	SR 125/ SR 11 to Siempre Viva Rd	47,400	9.00%	0.55	2,346	6	3	2,000	6,000	15%	0.45	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,600	9.00%	0.55	3,495	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	153,800	9.00%	0.55	7,613	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,800	9.00%	0.55	5,138	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4 -46

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,000	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,000	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,000	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,000	0.12	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	4,000	0.07	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	2,000	0.04	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,000	0.08	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	0	0.00	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	8,000	0.20	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	1,000	0.03	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,000	0.03	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,000	0.03	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	9,000	0.15	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	11,000	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	25,000	0.42	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	5,000	0.08	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	2,000	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-46

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,000	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	11,000	0.28	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,000	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	14,000	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	13,000	0.22	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,000	0.15	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	3,000	0.09	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,000	0.27	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	3,000	0.10	A
Sanyo Ave	Otay Mesa to Airway Rd	City	4 Lane Collector	30,000	4,000	0.13	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	6,000	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	1,000	0.02	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	2,000	0.05	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,000	0.25	B
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	4,000	0.11	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	7,000	0.19	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-47
Opening Year (2015)
Intersection Capacity Analysis
Full Interchange/One Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	11.6	A	8.7
Lone Star Rd and Sunroad Blvd	A	3.9	A	5.2
Lone Star Rd and Zinser Rd	B	14.5	B	13.8
Lone Star Rd and Van Center Blvd	A	6.4	A	6.7
Lone Star Rd and Enrico Fermi Dr	A	7.7	A	7.6
Lone Star Rd and Alta Rd	C	25.2	C	23.8
Lone Star Rd and Otay Mesa Rd	B	14.6	B	14.8
Lone Star Rd and Siempre Viva Rd	B	16.2	B	18.0
Zinser Rd and Piper Ranch Rd	B	11.9	B	12.4
Zinser Rd and Sunroad Blvd	C	23.4	C	25.3
Otay Mesa Rd and Britannia Blvd	B	16.4	B	16.6
Otay Mesa Rd and La Media Rd	C	24.0	C	21.4
Otay Mesa Rd and Piper Ranch Rd	B	17.1	B	16.7
Otay Mesa Rd and SR-125 SB Off Ramp	B	13.0	B	13.6
Otay Mesa Rd and SR-125 NB On Ramp	A	1.8	A	4.6
Otay Mesa Rd and Harvest Rd	B	12.1	B	13.9
Otay Mesa Rd and Sanyo Ave	C	20.7	C	20.8
Otay Mesa Rd and Van Center Blvd	A	5.8	A	5.8
Otay Mesa Rd and Enrico Fermi Dr	C	21.7	C	26.8
Otay Mesa Rd and Alta Rd	B	19.2	B	18.9
SR 905 WB Ramps and Britannia Blvd	B	12.9	A	9.2
SR 905 EB Ramps and Britannia Blvd	B	13.6	B	11.7
SR 905 WB Off Ramp and La Media Rd	A	7.1	A	7.6
SR 905 EB Ramps and La Media Rd	B	13.1	B	13.0
SR 11 WB Ramps and Alta Rd	B	10.8	B	10.9
SR 11 EB Ramps and Alta Rd	B	11.5	A	9.4
Airway Rd and Britannia Blvd	C	24.9	C	22.1
Airway Rd and La Media Rd	C	21.1	C	25.6
Airway Rd and Sanyo Ave	B	17.4	B	17.1
Airway Rd and Paseo De Las Americas	C	21.0	C	21.3
Airway Rd and Enrico Fermi Dr	B	17.6	C	23.8
Airway Rd and Alta Rd	C	25.2	C	23.8
Siempre Viva Rd and Britannia Blvd	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	C	21.9	C	21.6
Siempre Viva Rd and Otay Center Dr	C	27.9	C	27.5
Siempre Viva Rd and SR-905 SB Ramps	B	10.5	B	11.9
Siempre Viva Rd and SR-905 NB Ramps	B	13.9	B	14.9
Siempre Viva Rd and Paseo De Las Americas	C	23.8	C	26.4
Siempre Viva Rd and Enrico Fermi Dr	C	22.4	C	23.7
Siempre Viva Rd and Alta Rd	C	21.0	C	21.2
Siempre Viva Rd and Airway Rd	C	27.9	C	25.6

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 4-48
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - FULL INTERCHNAGE/NO INTERCHANGE DESIGN VARIATION

		Peak Hour Traffic (veh/hr)									
SR 11		AM		PM		Number of Lanes		AM Peak Hour		PM Peak Hour	
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-905 On Ramp to SR-125 On Ramp	Merge	429	123	223	113	3		B	17.8	B	16.3
SR-125 On Ramp to Siempre Viva Rd	Merge	552	347	336	315						
South of Siempre Viva Rd (Auto's Only)	Freeway	899		651		2		A	7.8	A	5.4
Siempre Vivla Rd to South of Siempre Viva Rd (Auto's Only)	Diverge	899	794	651	557	2		A	7.8	A	5.4
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	1340		1215		2		B	13.1	B	11.9
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	1.4	A	1.3
Siempre Viva Rd to SR-125 Off Ramp	Freeway	1479		1341		2		B	14.4	B	13.1
SR-125 Off Ramp to SR-905 Off Ramp	Diverge	1479	283	1341	283	3		B	17.8	B	16.3
SR-905 Off Ramp	Diverge	1196	101	956	139						

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 4-49
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHNAGE/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	34,800	9.00%	0.55	1,723	4	2	2,000	4,000	5%	0.45	B
	Lone Star Rd to Otay Mesa Rd	34,800	9.00%	0.55	1,723	4	2	2,000	4,000	5%	0.45	B
SR-905	I-5 to I-805	69,400	9.00%	0.55	3,435	6	3	2,000	6,000	15%	0.66	C
	I-805 to Otay Mesa Rd	81,800	9.00%	0.55	4,049	6	3	2,000	6,000	15%	0.78	C
	Otay Mesa Rd to Britannia Blvd	66,000	9.00%	0.55	3,267	6	3	2,000	6,000	15%	0.63	C
	Britannia Blvd to La Media Rd	63,200	9.00%	0.55	3,128	6	3	2,000	6,000	15%	0.60	B
	SR 125/ SR 11 to Siempre Viva Rd	51,200	9.00%	0.55	2,534	6	3	2,000	6,000	15%	0.49	B
	Siempre Viva Rd to International Border (2)	42,200	9.00%	0.55	2,089	6	3	2,000	6,000	15%	0.40	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,100	9.00%	0.55	3,470	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	112,100	9.00%	0.55	5,549	12	6	2,000	12,000	1%	0.47	B
I-805	North of SR -905	154,600	9.00%	0.55	7,653	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,000	9.00%	0.55	5,099	8	4	2,000	8,000	1%	0.64	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-50

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHNAGE/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	2,200	0.06	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,200	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	4,900	0.13	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	2,900	0.08	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,800	0.21	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	8,300	0.14	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	7,000	0.12	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	3,000	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,500	0.04	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,300	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	7,000	0.18	A
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	500	0.01	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,900	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,200	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	8,400	0.14	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	3,700	0.06	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	30,800	0.51	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	8,200	0.14	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,700	0.05	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,100	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	1,000	0.03	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 4-50

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHNAGE/NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2015 ADT	2015 V/C	2015 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	12,100	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,600	0.27	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,900	0.23	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	14,200	0.24	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,600	0.17	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,600	0.34	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,900	0.08	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	8,900	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	4,900	0.16	A
Sanyo Ave	Otay Mesa to Airway Rd	County	Collector	34,200	5,900	0.17	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	10,100	0.34	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	4,800	0.08	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	2,500	0.07	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,600	0.12	A
	South of Siempre Viva Rd	County	Major Road	37,000	400	0.01	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	C
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	300	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	400	0.01	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 4-51
Opening Year (2015)
Intersection Capacity Analysis
Full Interchange/No Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and Piper Ranch Rd	B	10.4	A	6.5
Lone Star Rd and Sunroad Blvd	A	6.4	A	9.3
Lone Star Rd and Zinser Rd	B	11.3	B	14.3
Lone Star Rd and Van Center Blvd	A	7.1	A	7.2
Lone Star Rd and Enrico Fermi Dr	B	11.6	A	8.8
Lone Star Rd and Alta Rd	B	15.7	B	16.3
Lone Star Rd and Otay Mesa Rd	A	8.0	A	8.5
Lone Star Rd and Siempre Viva Rd	B	10.2	B	13.8
Zinser Rd and Piper Ranch Rd	A	9.9	B	10.7
Zinser Rd and Sunroad Blvd	B	16.3	B	19.5
Otay Mesa Rd and Britannia Blvd	B	12.4	B	13.3
Otay Mesa Rd and La Media Rd	C	23.9	B	19.5
Otay Mesa Rd and Piper Ranch Rd	C	23.8	C	20.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	5.8	A	6.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.4	A	2.9
Otay Mesa Rd and Harvest Rd	B	14.9	B	13.2
Otay Mesa Rd and Sanyo Ave	B	12.9	B	13.9
Otay Mesa Rd and Van Center Blvd	A	5.5	A	5.4
Otay Mesa Rd and Enrico Fermi Dr	B	13.8	B	16.9
Otay Mesa Rd and Alta Rd	B	10.9	B	10.7
SR 905 Britannia Blvd WB Ramps	A	7.5	A	8.2
SR 905 Britannia Blvd EB Ramps	B	10.3	B	10.8
SR 905 La Media Rd WB Off Ramp	A	6.7	A	6.3
SR 905 La Media Rd EB Ramps	B	11.1	B	10.4
Airway Rd and Britannia Blvd	C	21.0	B	16.9
Airway Rd and La Media Rd	B	18.7	C	25.6
Airway Rd and Sanyo Ave	B	16.4	B	15.9
Airway Rd and Paseo De Las Americas	A	7.8	A	8.6
Airway Rd and Enrico Fermi Dr	C	23.0	C	23.6
Airway Rd and Alta Rd	B	14.6	B	13.8
Siempre Viva Rd and Britannia Blvd	B	15.2	B	14.7
Siempre Viva Rd and La Media Rd	B	15.6	B	18.0
Siempre Viva Rd and Otay Center Dr	C	22.7	C	21.7
Siempre Viva Rd and SR-905 SB Ramps	A	7.9	A	9.0
Siempre Viva Rd and SR-905 NB Ramps	B	10.0	B	10.4
Siempre Viva Rd and Paseo De Las Americas	C	24.0	C	25.5
Siempre Viva Rd and Enrico Fermi Dr	C	20.2	B	19.6
Siempre Viva Rd and Alta Rd	B	14.6	B	14.1
Siempre Viva Rd and Airway Rd	B	15.6	B	15.5

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

TABLE 4-52
OPENING YEAR (2015)
SR-11 CAPACITY ANALYSIS - SR 11/SIEMPRE VIVA ROAD DESIGN VARATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	507	376	736	342	2	1	A (3)	10 (3)	B (3)	11.7 (3)
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	Freeway	883		1078		3		A	5.6	A	6.8
Enrico Fermi Rd Off Ramp	Diverge	963	267	1078	243	2	2	A (3)	1.0 (3)	A (3)	1.3 (3)
Enrico Fermi Rd On Ramp	Merge	616	196	835	222	2	1	A (3)	9.7 (3)	B (3)	12 (3)
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	Freeway	812		1057		3		A	5.4	A	7.0
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	812	728	1057	982	2	2	A (3)	7.4 (3)	A (3)	1.1 (3)
Siempre Viva Rd On Ramp	Merge	713	178	967	242	2	1	B (3)	10.5	B (3)	13.4
South of Siempre Viva Rd (Commercial Only)	Freeway	105		94		2		A	1.1	A	1.0
South of Siempre Viva Rd (Auto's Only)	Freeway	786		1115		2		A	7.1	A	10.1
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	1330		1206		2		B	12.1	A	10.9
South of Siempre Viva Rd (Commercial Only)	Freeway	139		126		2		A	1.4	A	1.3
Siempre Viva Rd Off Ramp	Diverge	1469	218	1382	198	3	1	A (3)	5.1	A (3)	9.9
Siempre Viva Rd On Ramp	Merge	1251	81	1134	110	2	2	A	7.8	A	9.2
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	Freeway	1332		1244		3		A	8.5	A	7.9
Enrico Fermi Rd Off Ramp	Diverge	1332	200	1244	218	2	2	A (3)	3.7 (3)	A (3)	2.9 (3)
Enrico Fermi Rd On Ramp	Merge	1132	219	1026	297	2	1	B (3)	14.2 (3)	B (3)	13.9 (3)
Enerico Fermi Rd On Ramp to SR-125 Off Ramp	Freeway	1351		1323		3		A	8.6	A	8.4
SR-125 Off Ramp	Diverge	1351	308	1323	418	2	1	B (3)	12.9 (3)	B (3)	12.7 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

TABLE 4-53
OPENING YEAR (2015)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-11 / SIEMPRE VIVA ROAD DESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	33,600	9.00%	0.55	1,663	4	2	2,000	4,000	5%	0.44	B
	Lone Star Rd to Otay Mesa Rd	33,600	9.00%	0.55	1,663	4	2	2,000	4,000	5%	0.44	B
SR-905	I-5 to I-805	68,900	9.00%	0.55	3,411	6	3	2,000	6,000	15%	0.65	C
	I-805 to Otay Mesa Rd	80,600	9.00%	0.55	3,990	6	3	2,000	6,000	15%	0.76	C
	Otay Mesa Rd to Britannia Blvd	64,800	9.00%	0.55	3,208	6	3	2,000	6,000	15%	0.61	B
	Britannia Blvd to La Media Rd	61,800	9.00%	0.55	3,059	6	3	2,000	6,000	15%	0.59	B
	SR 125/ SR 11 to Sempre Viva Road	24,400	9.00%	0.55	1,208	6	3	2,000	6,000	15%	0.23	A
	Siempre Viva Rd to International Border (2)	25,800	9.00%	0.55	1,277	6	3	2,000	6,000	15%	0.24	A
I-5	North of SR -905	125,300	9.00%	0.55	6,202	8	4	2,000	8,000	10%	0.85	D
	SR-905 to I-805	70,600	9.00%	0.55	3,495	8	4	2,000	8,000	1%	0.44	B
	I-805 to International Border (2)	125,600	9.00%	0.55	6,217	12	6	2,000	12,000	1%	0.52	B
I-805	North of SR -905	155,000	9.00%	0.55	7,673	8	4	2,000	8,000	10%	1.05	F
	SR-905 to I-5	103,800	9.00%	0.55	5,138	8	4	2,000	8,000	1%	0.65	C

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

TABLE 4-54

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-11/SIEMPRE VIVA ROAD DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX TWO-WAY ADT (2)	2015 TWO-WAY ADT	2015 V/C	2015 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	1,700	0.04	A
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	2,400	0.06	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,800	0.10	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	1,200	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	1,100	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	3,600	0.11	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	12,000	0.20	A
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	7,400	0.12	A
	SR-125 to Sun Road Blvd	City	6 Lane Prime	60,000	4,600	0.08	A
	Sun Road Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	2,700	0.05	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,600	0.04	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	400	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	9,200	0.23	A
	La Media Rd to SR - 905	City	4 Lane Major	40,000	6,800	0.17	A
	SR 905 to Paseo de las Americas	City	4 Lane Major	40,000	500	0.01	A
	Paseo de las Americas to Enrico Fermi Dr	County	Major Road	37,000	1,300	0.04	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	1,000	0.03	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	1,300	0.04	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	2,300	0.04	A
	La Media Rd to Harvest Rd	City	6 Lane Prime	60,000	8,600	0.14	A
	Harvest Rd to SR-905	City	6 Lane Prime	60,000	10,900	0.18	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	26,100	0.44	B
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	6,400	0.11	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	3,600	0.10	A
	Alta Rd to Airway Rd	County	Major Road	37,000	2,600	0.07	A
	Airway Rd to SR-11	County	Major Road	37,000	4,600	0.12	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	1,200	0.03	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

TABLE 4-54 (CONT.)

OPENING YEAR (2015)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-11/SIEMPRE VIVA ROAD DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX TWO-WAY ADT (2)	2015 TWO-WAY ADT	2015 V/C	2015 LOS
Brittania Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	11,800	0.30	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	10,600	0.27	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	7,300	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	13,000	0.22	A
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	12,400	0.21	A
	SR-905 to Airway Rd	City	4 Lane Major	40,000	6,200	0.16	A
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	13,400	0.34	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	2,200	0.06	A
	Zinzer Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	7,900	0.26	A
	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	-	-	-
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	300	0.01	A
	Zinser Rd to Otay Mesa Road	City	4 Lane Collector	30,000	3,900	0.13	A
Sanyo Ave	Otay Mesa to SR 905	County	Collector	34,200	5,000	0.15	A
	SR 905 - Airway	City	4 Lane Collector	30,000	5,000	0.17	A
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	5,800	0.19	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	4,700	0.08	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	6,900	0.19	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,300	0.12	A
	South of Siempre Viva Rd	County	Major Road	37,000	700	0.02	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	4,100	0.25	C
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	200	0.01	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	600	0.02	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

TABLE 4-55
Opening Year (2015)
Intersection Capacity Analysis
SR-11/Siempre Viva Road Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-
Lone Star Rd and Piper Ranch Rd	A	7.5	A	6.5
Lone Star Rd and Sun Road Blvd	A	6.1	A	6.7
Lone Star Rd and Zinser Rd	A	8.0	A	9.1
Lone Star Rd and Vann Center Blvd	A	7.0	A	7.4
Lone Star Rd and Enrico Fermi Dr	B	10.7	A	8.9
Lone Star Rd and Alta Rd	B	16.0	B	16.0
Otay Mesa Rd and Lone Star Rd	A	7.8	A	8.2
Siempre Viva Rd and Lone Star Rd	B	12.6	B	10.4
Zinser Rd and Piper Ranch Rd	B	10.2	B	10.5
Zinser Rd and Sun Road Blvd	B	14.9	B	15.6
Otay Mesa Rd and Britannia Blvd	B	13.3	B	13.7
Otay Mesa Rd and La Media Rd	C	21.8	B	18.9
Otay Mesa Rd and Piper Ranch Rd	C	21.6	B	19.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.0	A	9.1
Otay Mesa Rd and SR-125 NB On Ramp	A	2.7	A	3.7
Otay Mesa Rd and Harvest Rd	B	14.5	B	14.2
Otay Mesa Rd and Sanyo Ave	B	13.3	B	13.0
Otay Mesa Rd and Vann Center Blvd	A	5.2	A	5.3
Otay Mesa Rd and Enrico Fermi Rd	B	13.7	B	16.8
Otay Mesa Rd and Alta Rd	B	11.7	B	10.5
SR 905 WB Ramps and Britannia Blvd	A	6.3	A	7.9
SR 905 EB Ramps and Britannia Blvd	B	9.5	B	10.1
SR 905 WB Off Ramp and La Media Rd	A	6.9	A	7.8
SR 905 EB Ramps and La Media Rd	A	8.1	B	11.1
SR 11 WB Ramps and Enrico Fermi Dr	B	10.8	B	11.8
SR 11 EB Ramps and Enrico Fermi Dr	B	11.4	B	12.0
SR 11 WB Ramps and Siempre Viva Rd	B	11.0	B	10.7
SR 11 EB Ramps and Siempre Viva Rd	C	22.1	B	14.5
Airway Rd and Britannia Blvd	C	23.2	B	17.5
Airway Rd and La Media Rd	B	17.7	C	23.7
Airway Rd and Sanyo Ave	B	15.9	B	15.3
Airway Rd and Paseo De Las Americas	A	6.8	A	7.9
Airway Rd and Enrico Fermi Dr	B	15.5	B	15.7
Airway Rd and Alta Rd	B	14.6	B	13.7
Siempre Viva Rd and Britannia Blvd	B	15.6	B	14.7
Siempre Viva Rd and La Media Rd	B	14.7	B	14.9
Siempre Viva Rd and Otay Center Dr	C	24.8	C	24.0
Siempre Viva Rd and SR-905 SB Ramps	A	6.0	A	7.7
Siempre Viva Rd and SR-905 NB Ramps	B	10.1	B	11.0
Siempre Viva Rd and Paseo De Las Americas	C	22.7	C	25.0
Siempre Viva Rd and Enrico Fermi Dr	C	21.4	C	24.7
Siempre Viva Rd and Alta Rd	B	16.3	B	16.1
Siempre Viva Rd and Airway Rd	B	17.0	B	14.0

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

5.0 HORIZON YEAR (2035) CONDITIONS

A traffic analysis was conducted to document expected traffic conditions in 2035, twenty years after the expected opening day of the SR-11/Otay Mesa East Land POE facility. Horizon year conditions for roadways in the study area (other than SR-11) were based on the San Diego Association of Governments (SANDAG) regional transportation model for 2030 conditions (although traffic forecasts were updated to 2035, as described in Chapter 2). Roadway segment assumptions for horizon year conditions are shown in Figure 5-1.

All of the alternatives and design variations analysis described previously were analyzed for horizon year conditions. Expected lane geometry, traffic forecasts and operating conditions for horizon year conditions are documented in various figures and tables as follows:

- No Build Alternative: Figures 5-2 through 5-5 and Tables 5-1 through 5-3
- Two Interchange Alternative: Figures 5-6 through 5-10 and Tables 5-4 through 5-7
- One Interchange Alternative: Figures 5-11 through 5-15 and Tables 5-8 through 5-11
- No Interchange Alternative: Figures 5-16 through 5-20 and Tables 5-12 through 5-15
- No Toll/Two Interchange Design Variation: Figures 5-21 through 5-25 and Tables 5-16 through 5-19
- No Toll/One Interchange Design Variation: Figures 5-26 through 5-30 and Tables 5-20 through 5-23
- No Toll/No Interchange Design Variation: Figures 5-31 through 5-35 and Tables 5-24 through 5-27
- SR-125 Connector/Two Interchange Design Variation: Figures 5-36 through 5-40 and Tables 5-28 through 5-31
- SR-125 Connector/One Interchange Design Variation : Figures 5-41 through 5-45 and Tables 5-32 through 5-35
- SR-125 Connector/No Interchange Design Variation : Figures 5-46 through 5-50 and Tables 5-36 through 5-39
- Full Interchange/Two Interchange Design Variation: Figures 5-51 through 5-55 and Tables 5-40 through 5-43

- Full Interchange /One Interchange Design Variation : Figures 5-56 through 5-60 and Tables 5-44 through 5-47

- Full Interchange /No Interchange Design Variation : Figures 5-61 through 5-65 and Tables 5-48 through 5-51

- SR-11/Siempre Viva Road Interchange Design Variation : Figures 5-66 through 5-70 and Tables 5-52 through 5-55

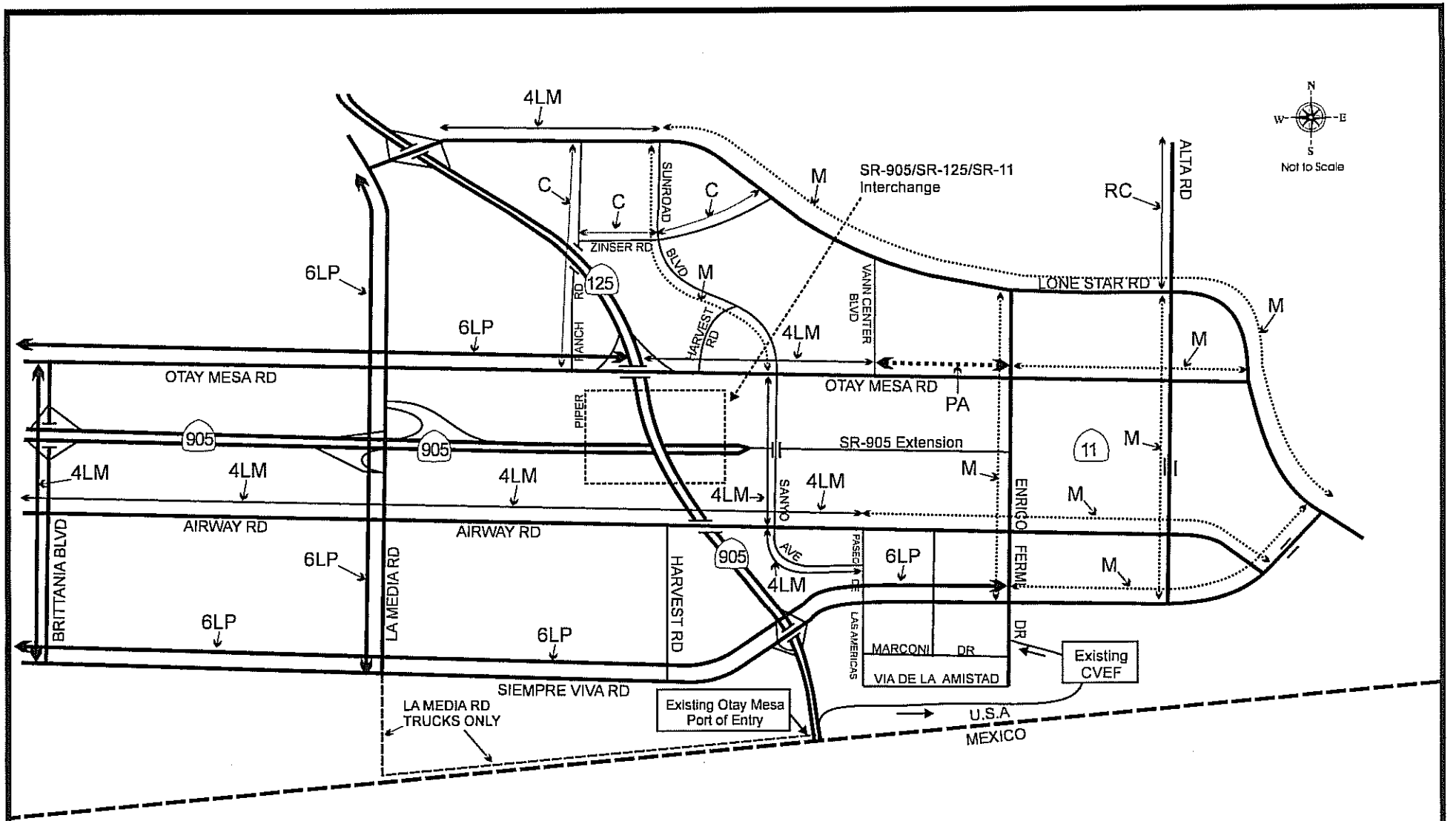
In the case of the SR-11/Siempre Viva Road Interchange Design Variation, a queuing analysis was conducted because of the relatively large number of traffic movements that would be accommodated in a relatively small area. The results of the traffic queuing analysis indicate the potential for queue storage problems at the following locations:

- At the northbound commercial SR-11 off ramp to Siempre Viva Road, there is minimal distance provided from the commercial Land Port of Entry processing area and the between the beginning of the off ramp. Any disruptions in off ramp traffic would tend to cause queues of trucks that would back up into the LPOE facility.

- The left turn lane from westbound Siempre Viva to southbound SR-11 serving both passenger cars and commercial vehicles consists of a single left turn lane but is expected to carry 389 vehicles per hour in the AM peak hour and 528 vehicles per hour in the PM peak hour. Any left turn movement carrying more than 300 vehicles per hour would normally require two lanes. However, it is considered infeasible to provide a dual left turn lane at this location because the southbound on ramp diverges to separate passenger car and commercial vehicle ramps a short distance from the intersection. If a dual left turn lane were provided, it would be difficult or impossible to position vehicles in the correct lane with respect to the diverge point leading to safety concerns.

- The commercial vehicle ramp from Siempre Viva Road to southbound SR-11 joins the southbound SR-11 commercial vehicle lanes just north of the toll plaza for southbound commercial vehicles. This creates a short weaving section in which commercial vehicles entering the mainline on the on ramp on the right side may wish to use toll lanes on the left side of the toll plaza leading to safety concerns.

- The passenger vehicle ramp from Siempre Viva Road to southbound SR-11 joins the southbound SR-11 passenger vehicle lanes just north of the toll plaza for southbound passenger vehicles. This creates a short weaving section in which passenger vehicles entering the mainline on the on ramp on the right side may wish to use toll lanes on the left side of the toll plaza leading to safety concerns.



Horizon Year (2035) Freeway/Tollway Roadway Segment Classifications - No Build Alternative

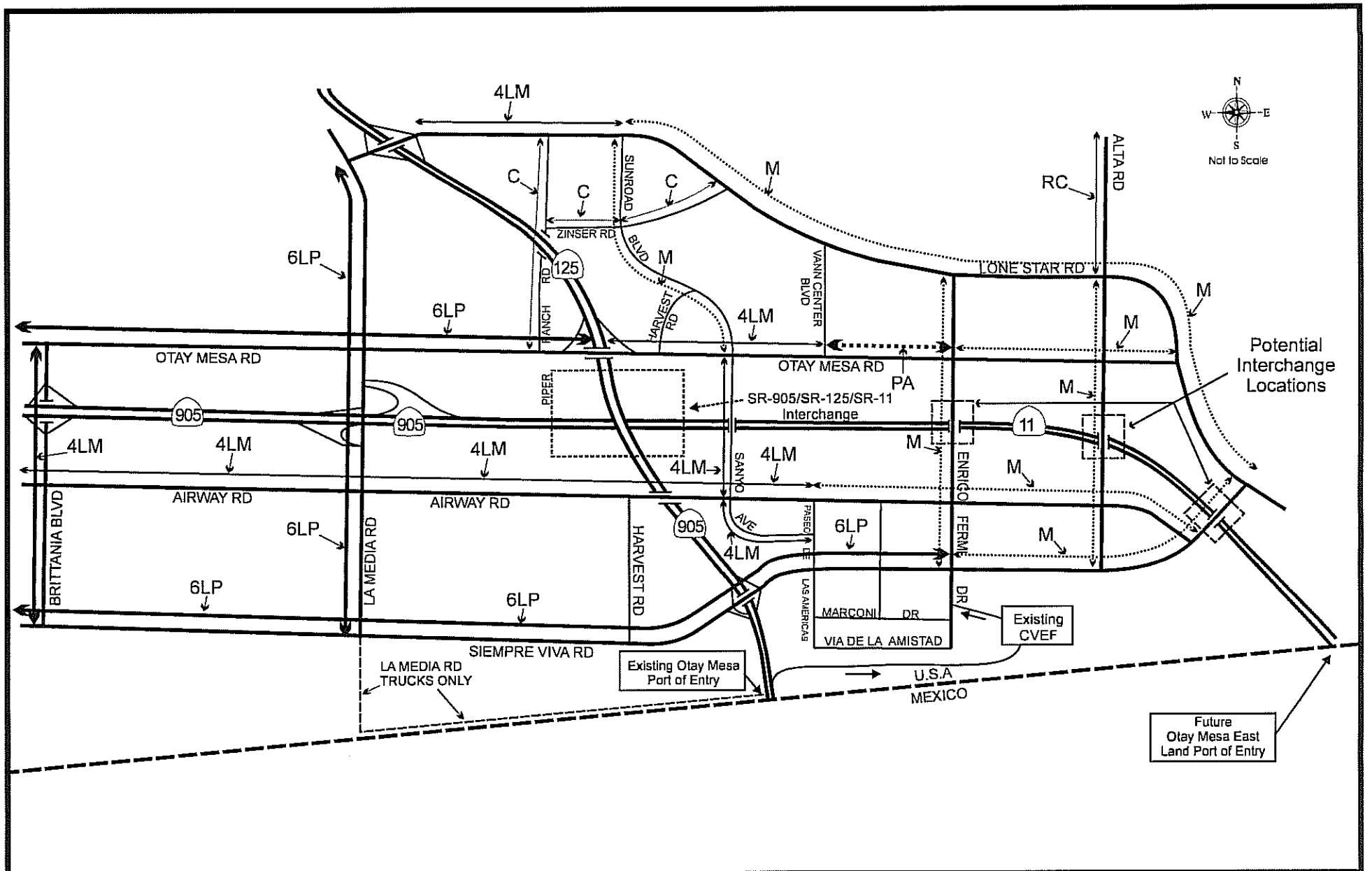
Legend

Freeway/Tollway

Collector (C)
Rural Collector (RC)
4 Lane Collector (4LC)
4 Lane Major (4LM)

Major Rd (M)
Prime Arterial (PA)
6 Lane Prime (6LP)

Figure 5-1a

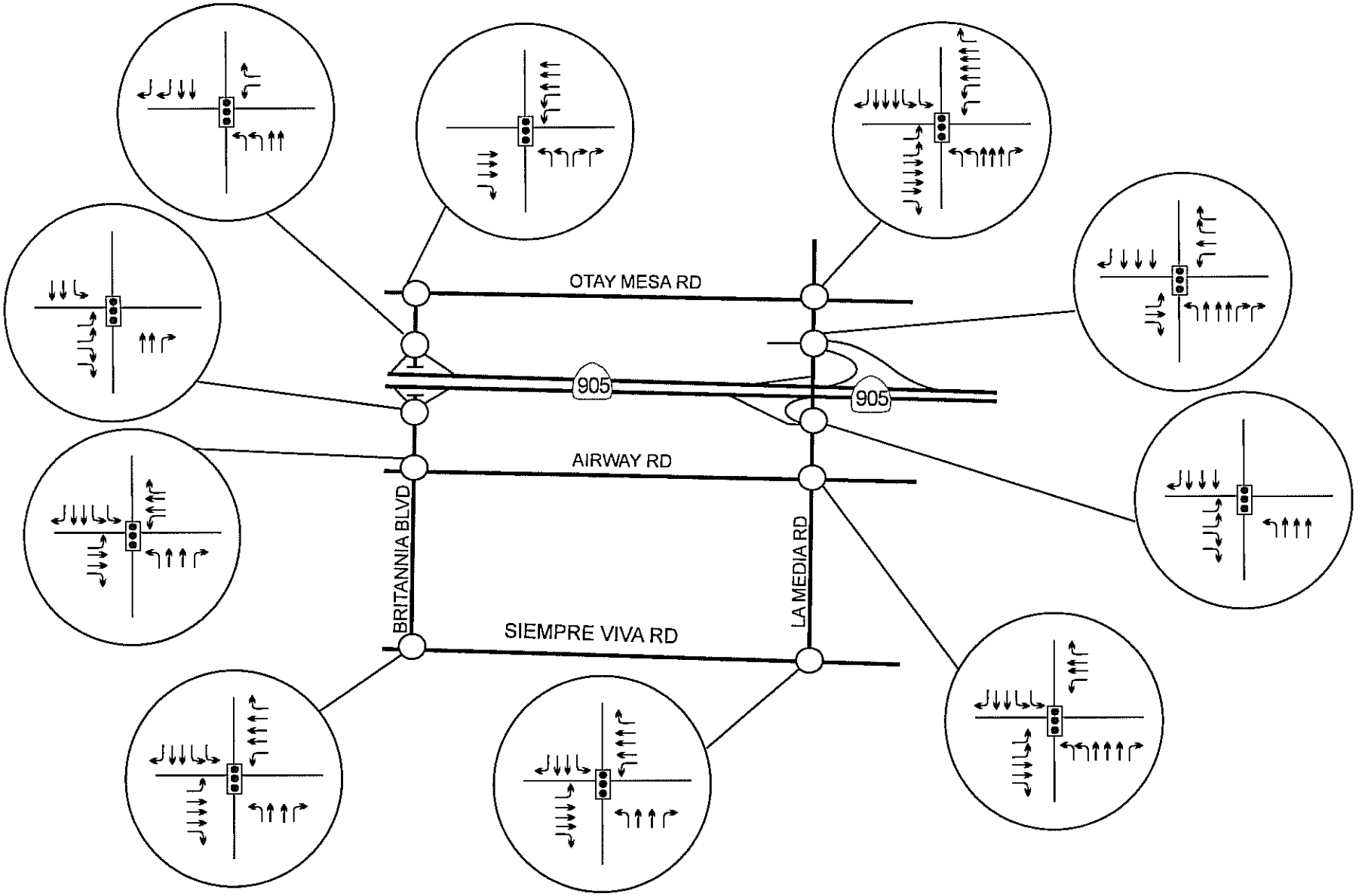


Horizon Year (2035) Freeway/Tollway Roadway Segment Classifications - Build Alternatives

Legend

- Freeway/Tollway
- Collector (C)
- Rural Collector (RC)
- 4 Lane Collector (4LC)
- 4 Lane Major (4LM)
- Major Rd (M)
- Prime Arterial (PA)
- 6 Lane Prime (6LP)

Figure 5-1b

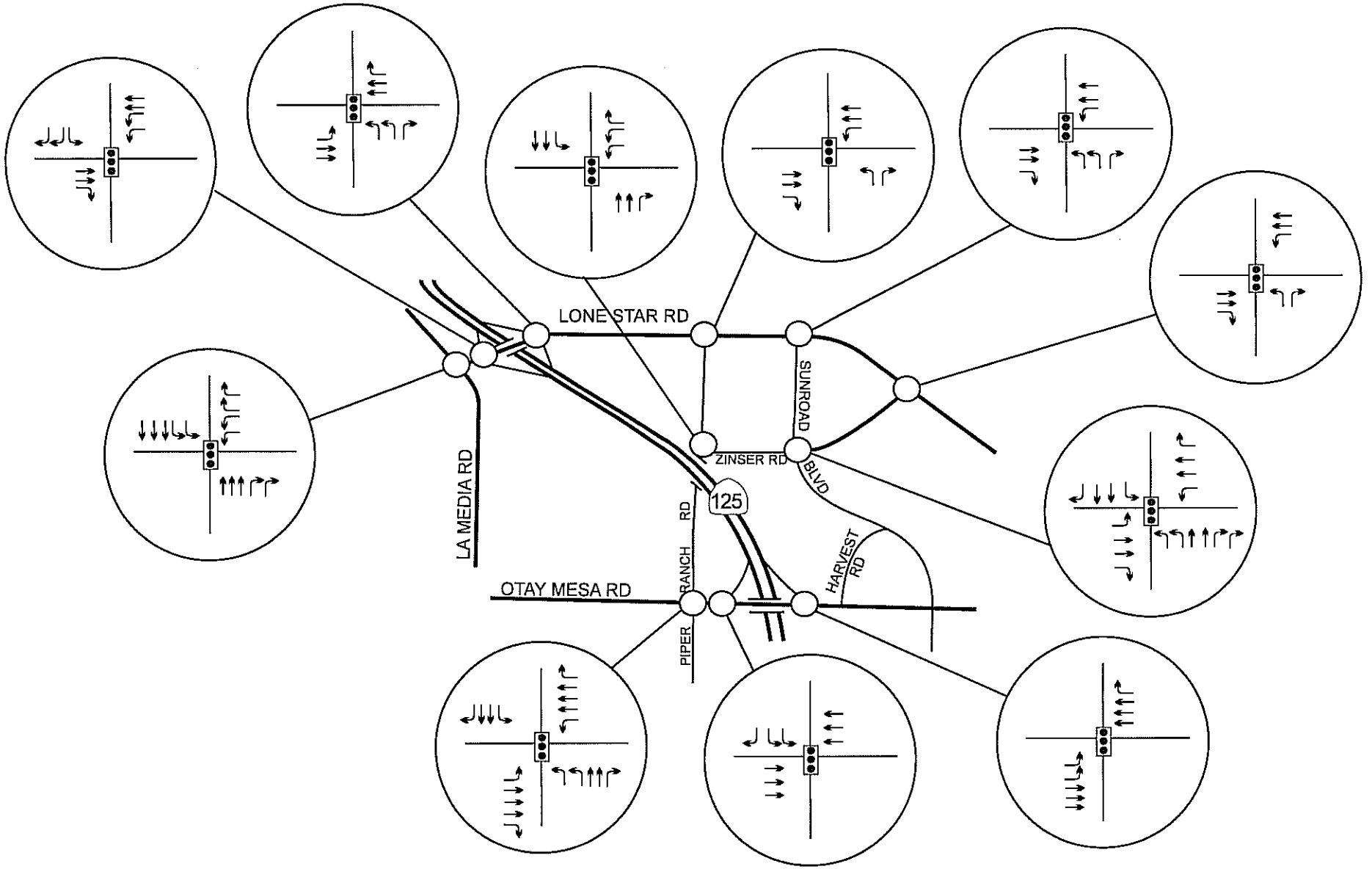


Horizon Year (2035) Intersection Lane Geometry - No Build

Legend

Direction of Travel Stop Sign Signal

Figure 5-2a

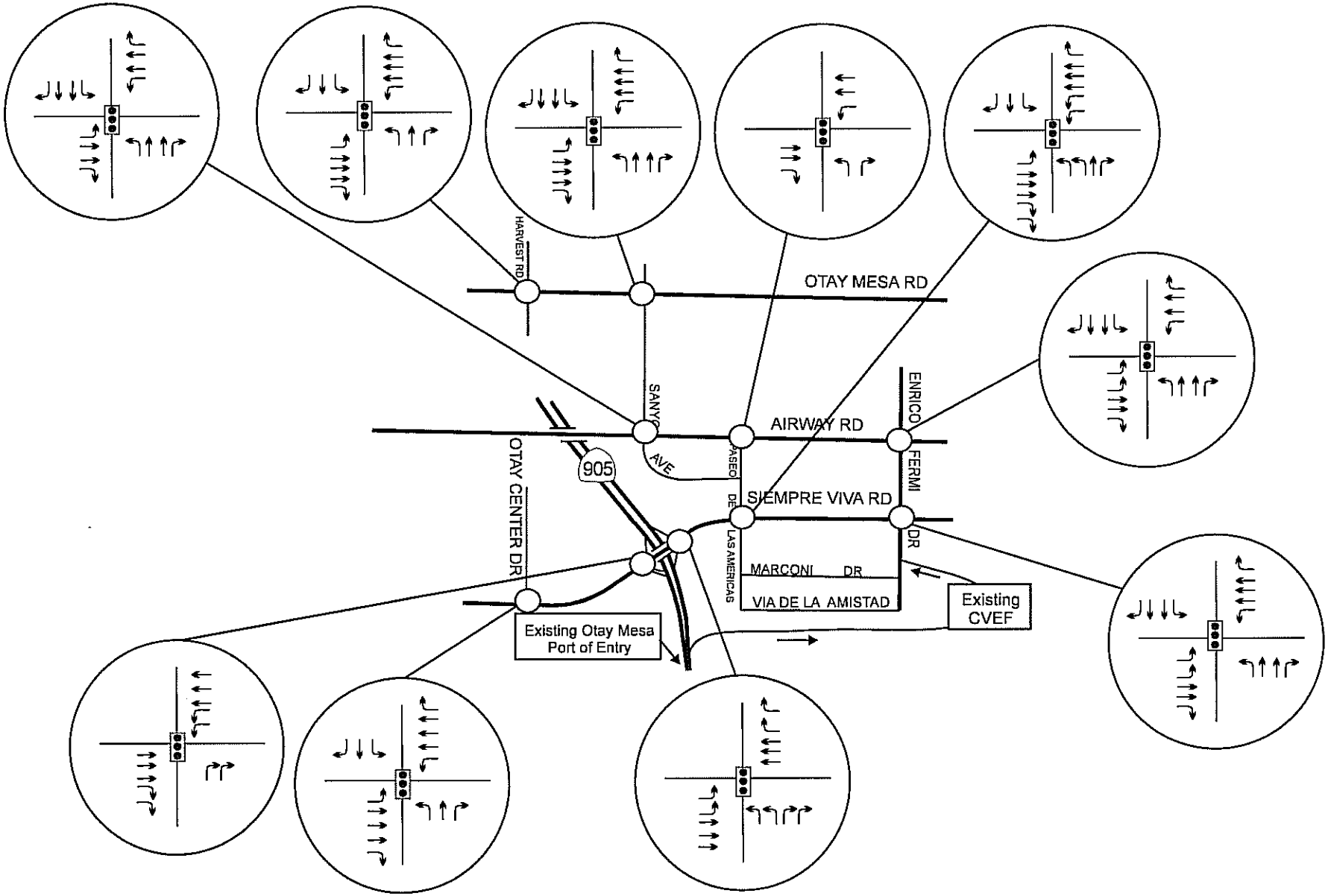


Horizon Year (2035) Intersection Lane Geometry - No Build

Legend

Direction of Travel Stop Sign Signal

Figure 5-2b

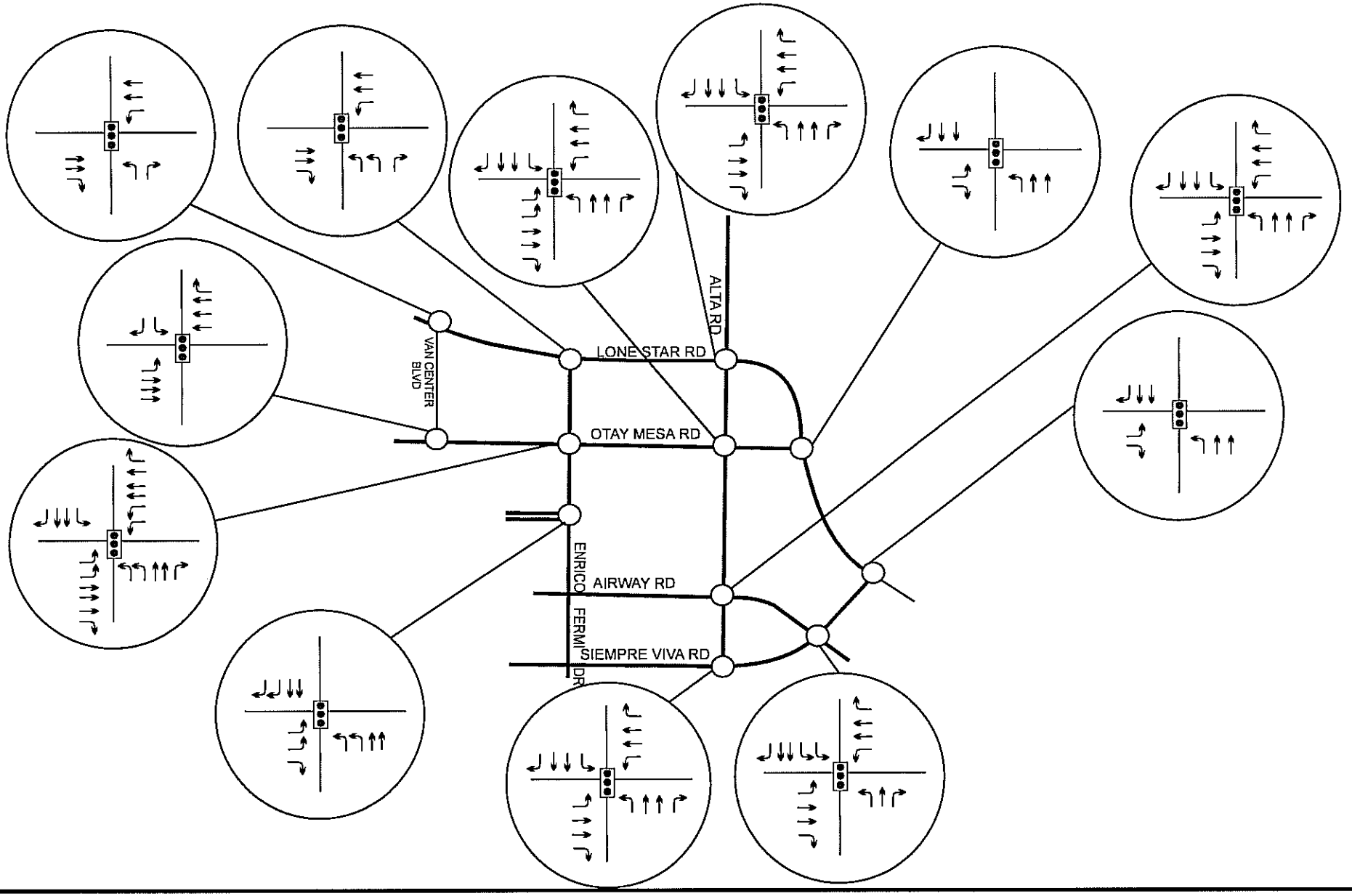


Horizon Year (2035) Intersection Lane Geometry - No Build

Legend

Direction of Travel Stop Sign Signal

Figure 5-2c

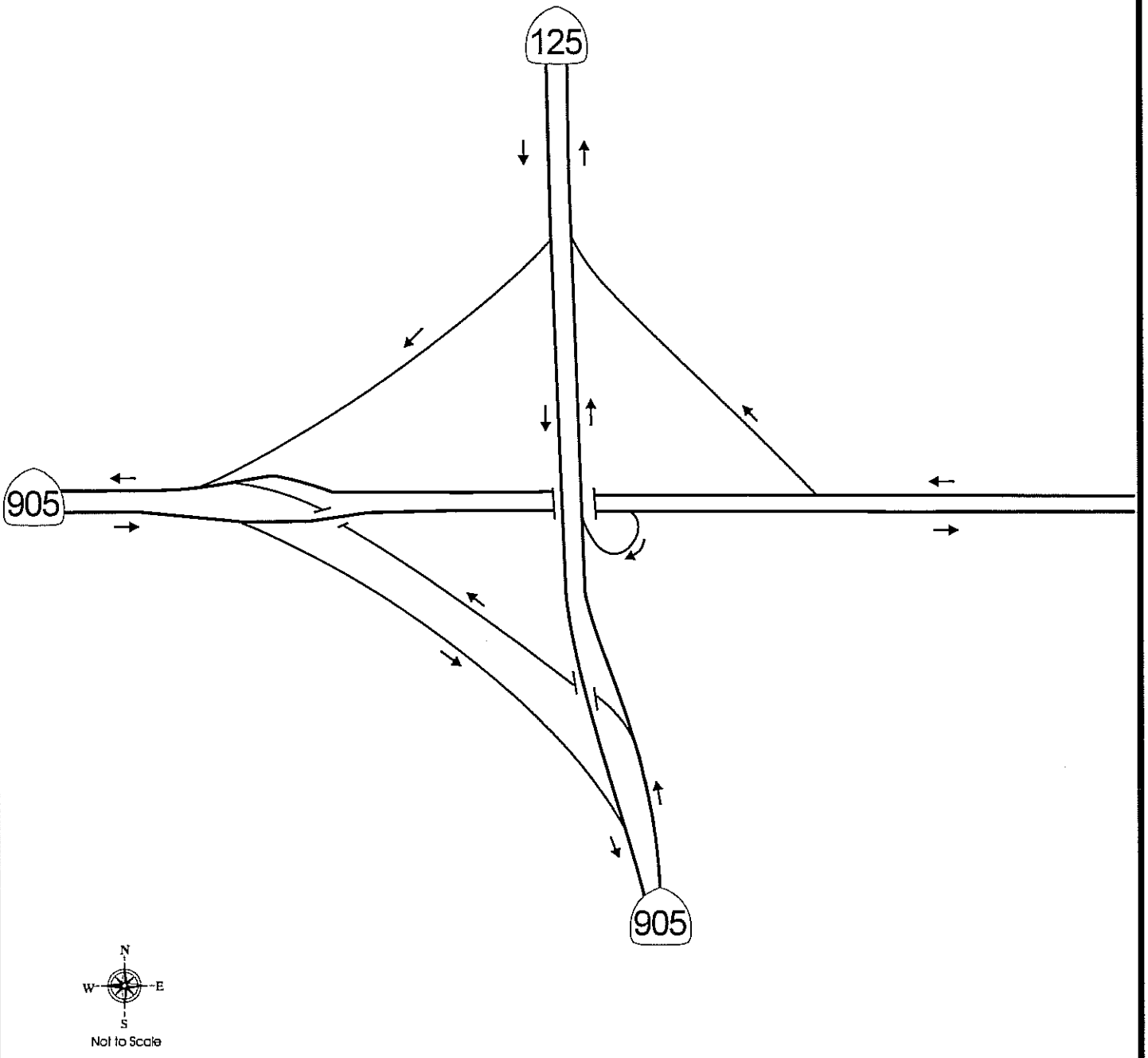


Horizon Year (2035) Intersection Lane Geometry - No Build

Legend

Direction of Travel Stop Sign Signal

Figure 5-2d



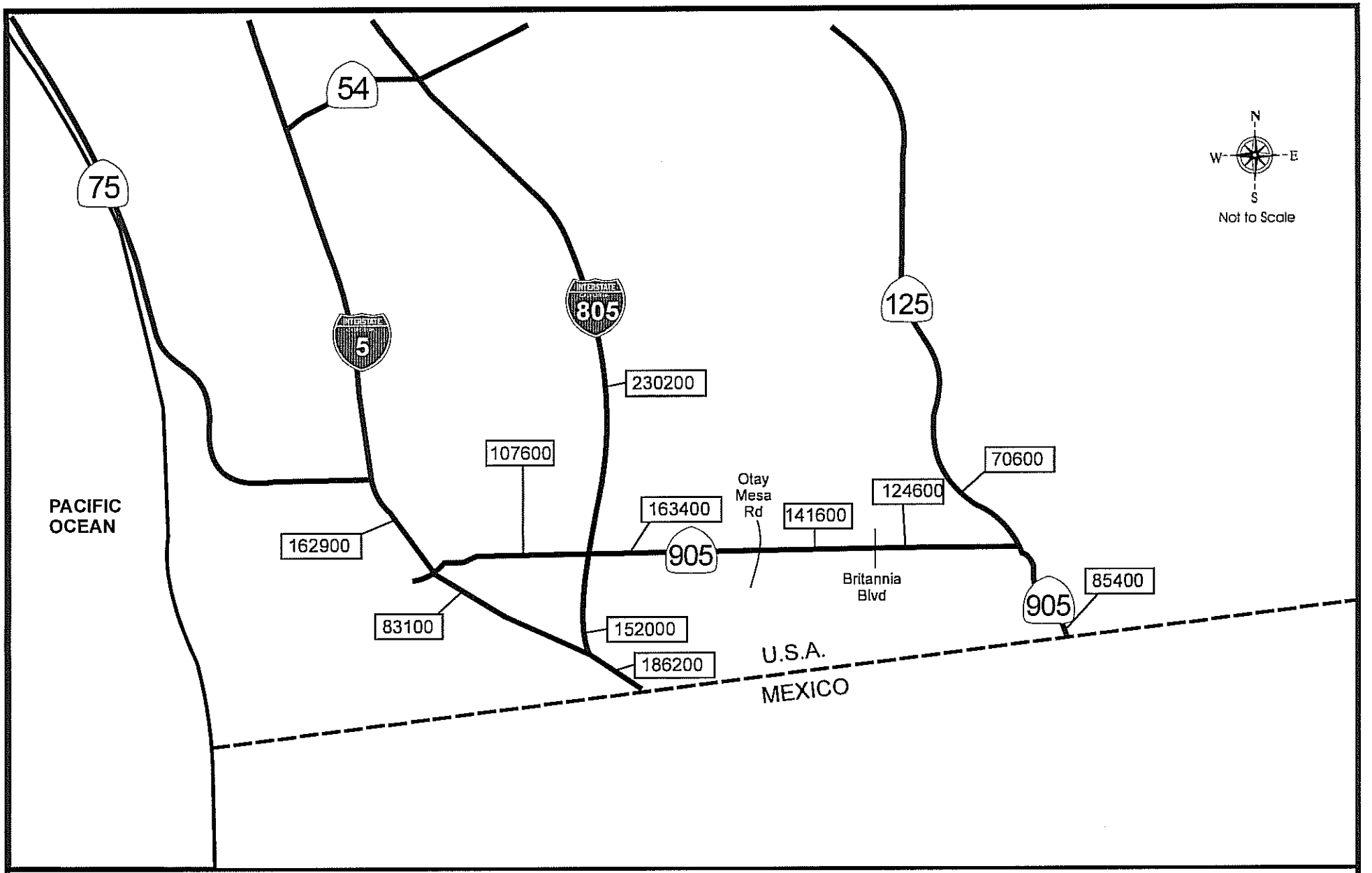
Horizon Year (2035) Lane Geometry - No Build
SR-905 / SR-125 / SR-11 Interchange

Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed Ramp

Figure 5-2e



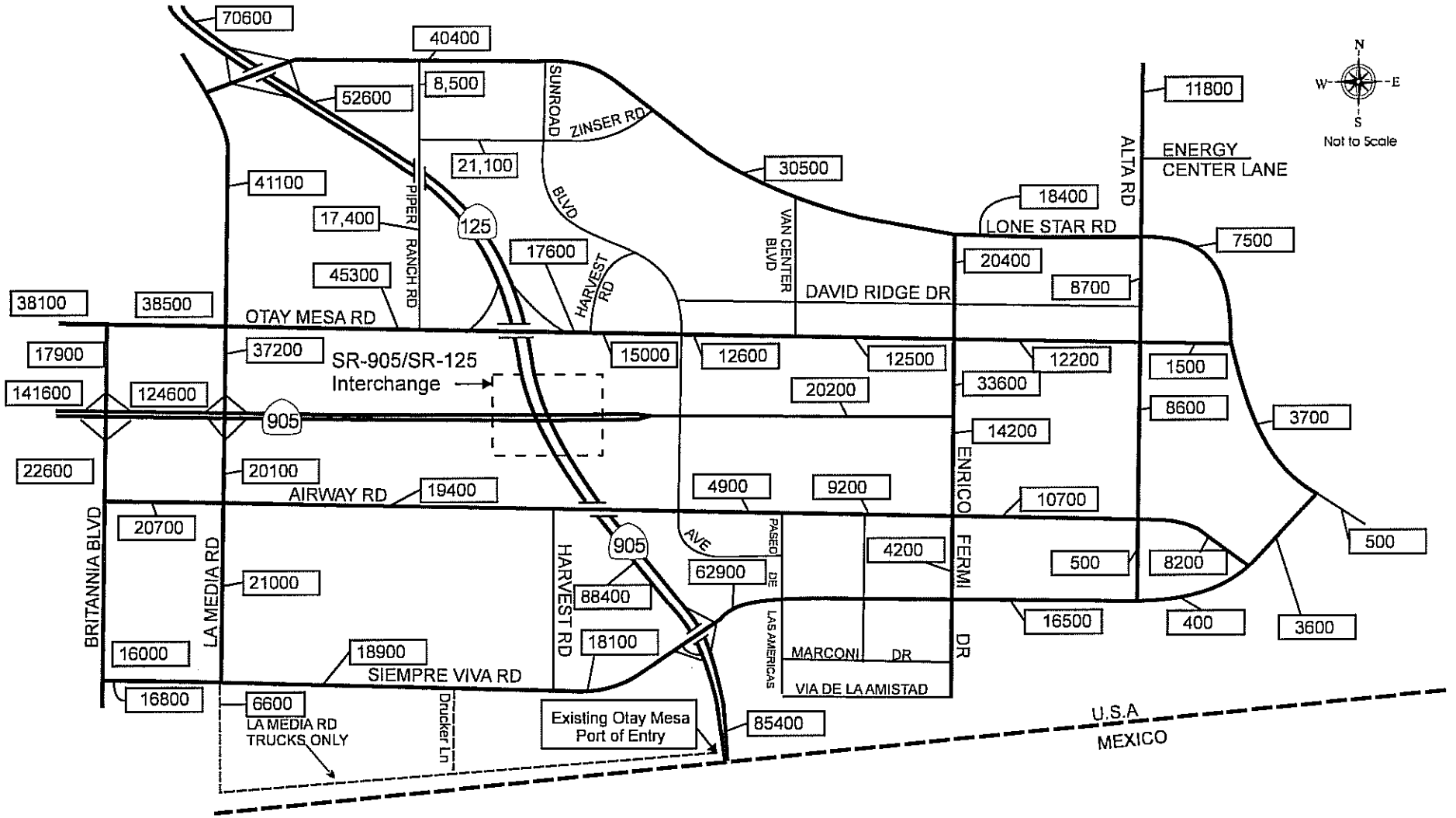
Horizon Year (2035) Average Daily Traffic - No Build

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-3a

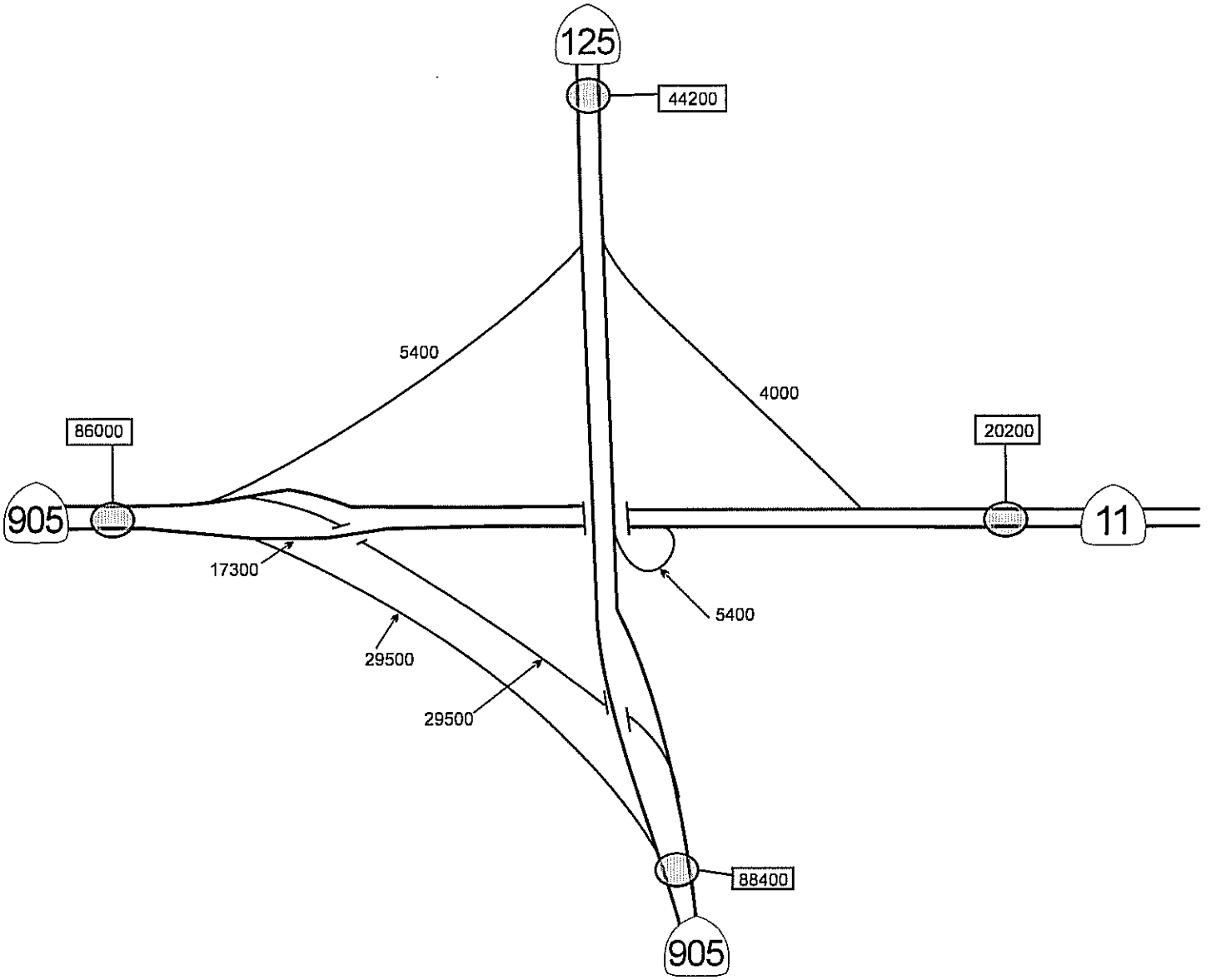


Horizon Year (2035) Average Daily Traffic - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-3b

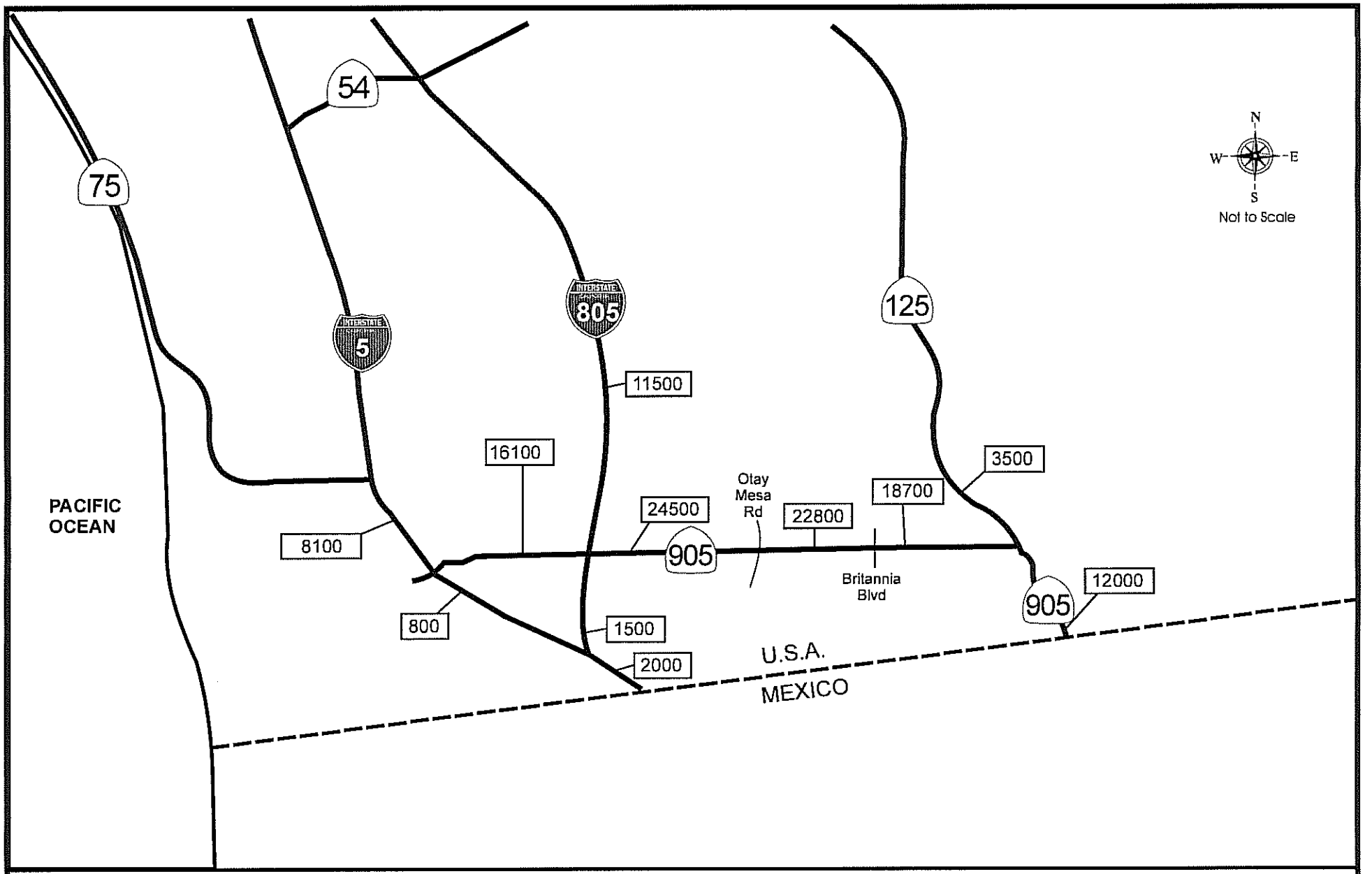


Horizon Year (2035)Average Daily Traffic - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-3c



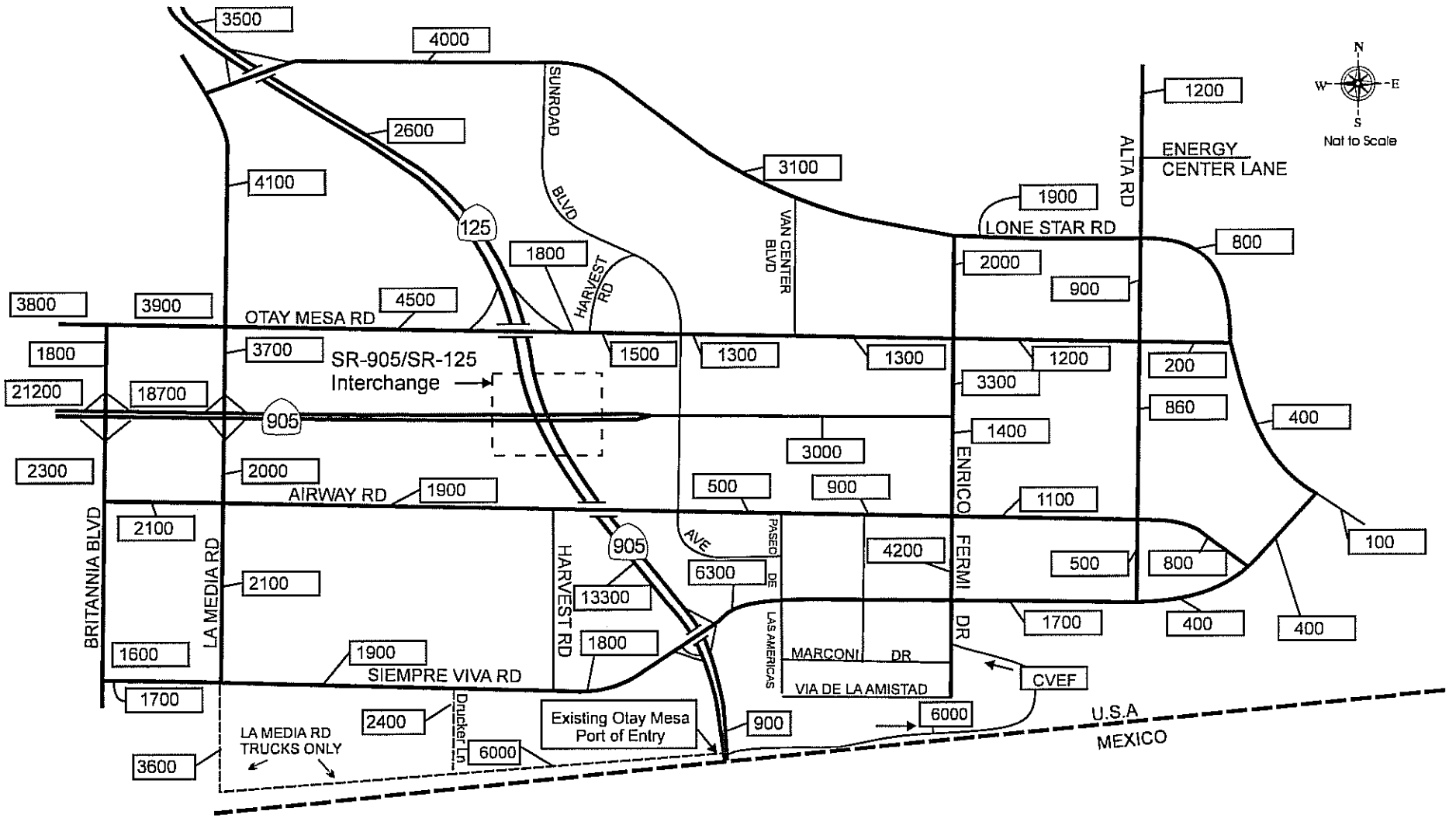
Horizon Year (2035) Daily Truck Trips - No Build

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-4a



Horizon Year (2035) Daily Truck Trips - No Build

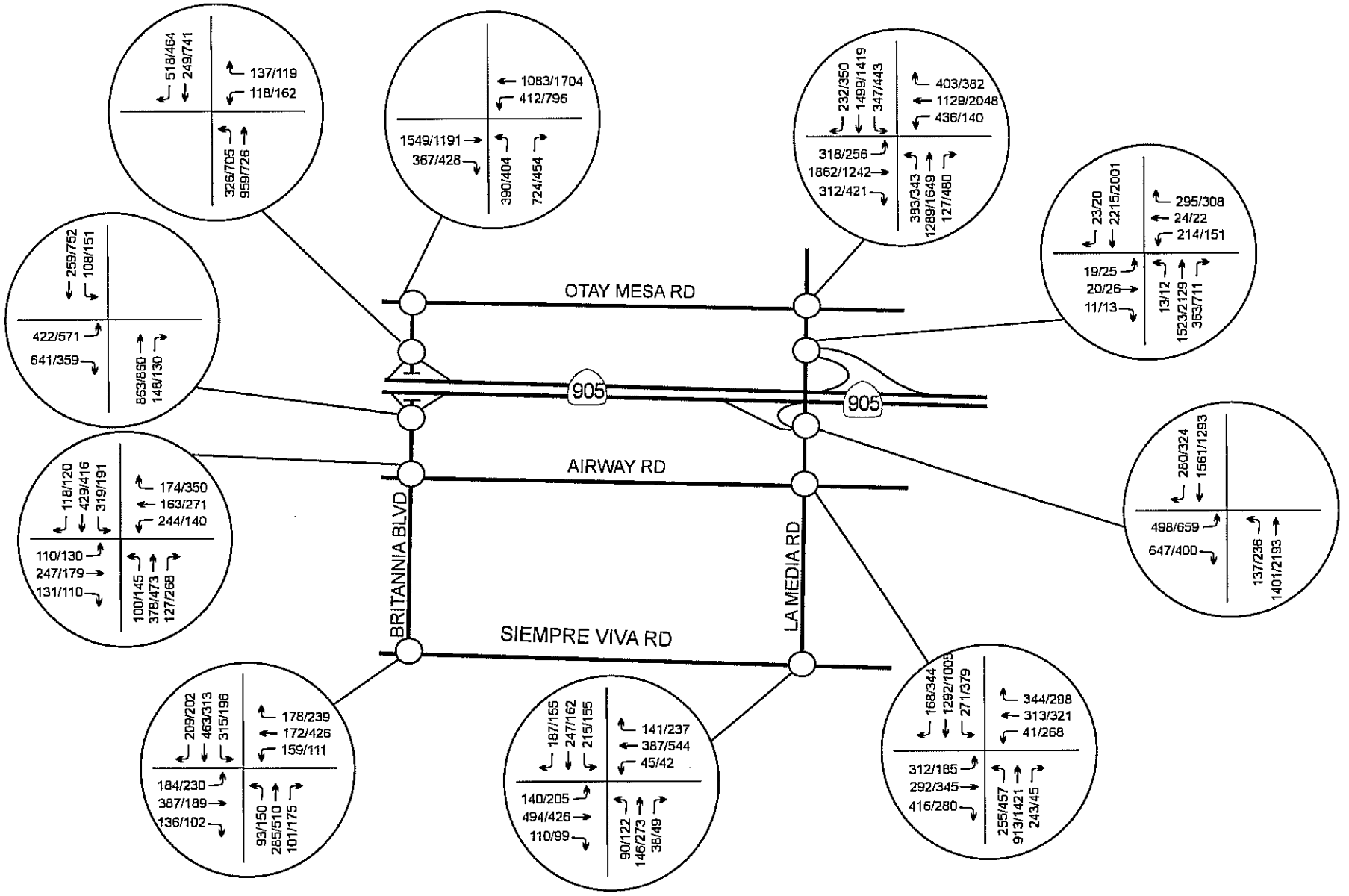
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-4b

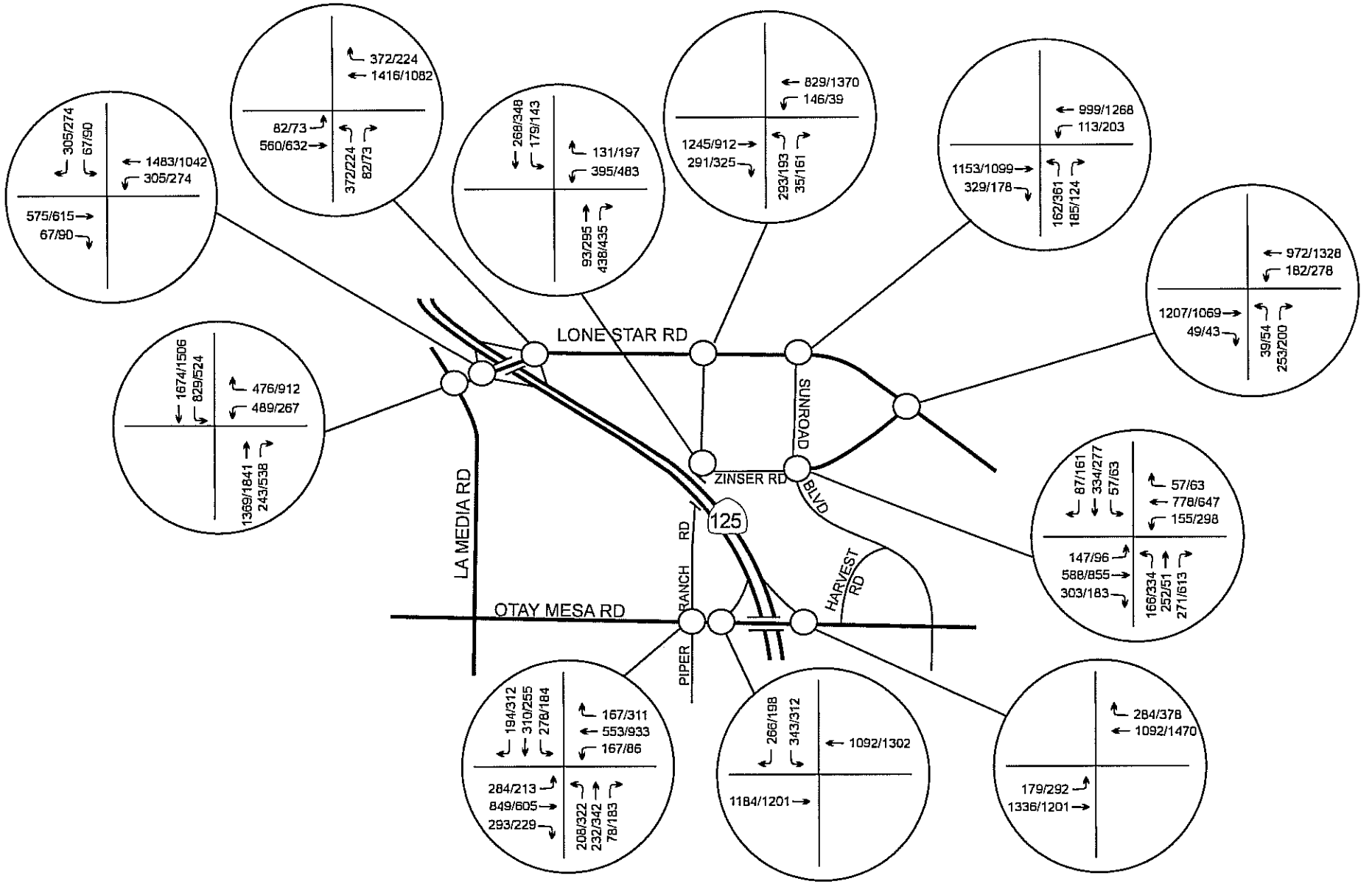


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-5a

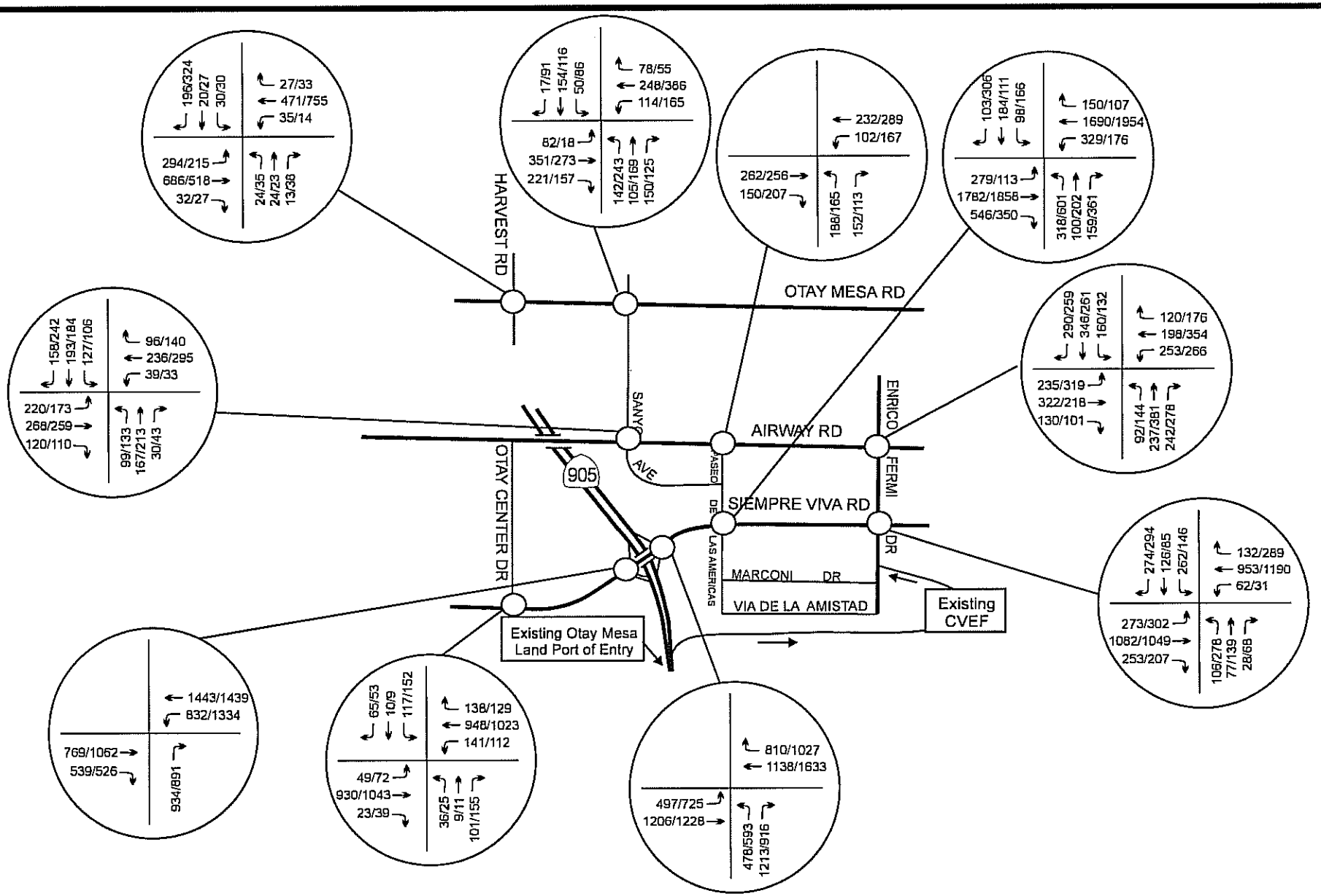


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-5b

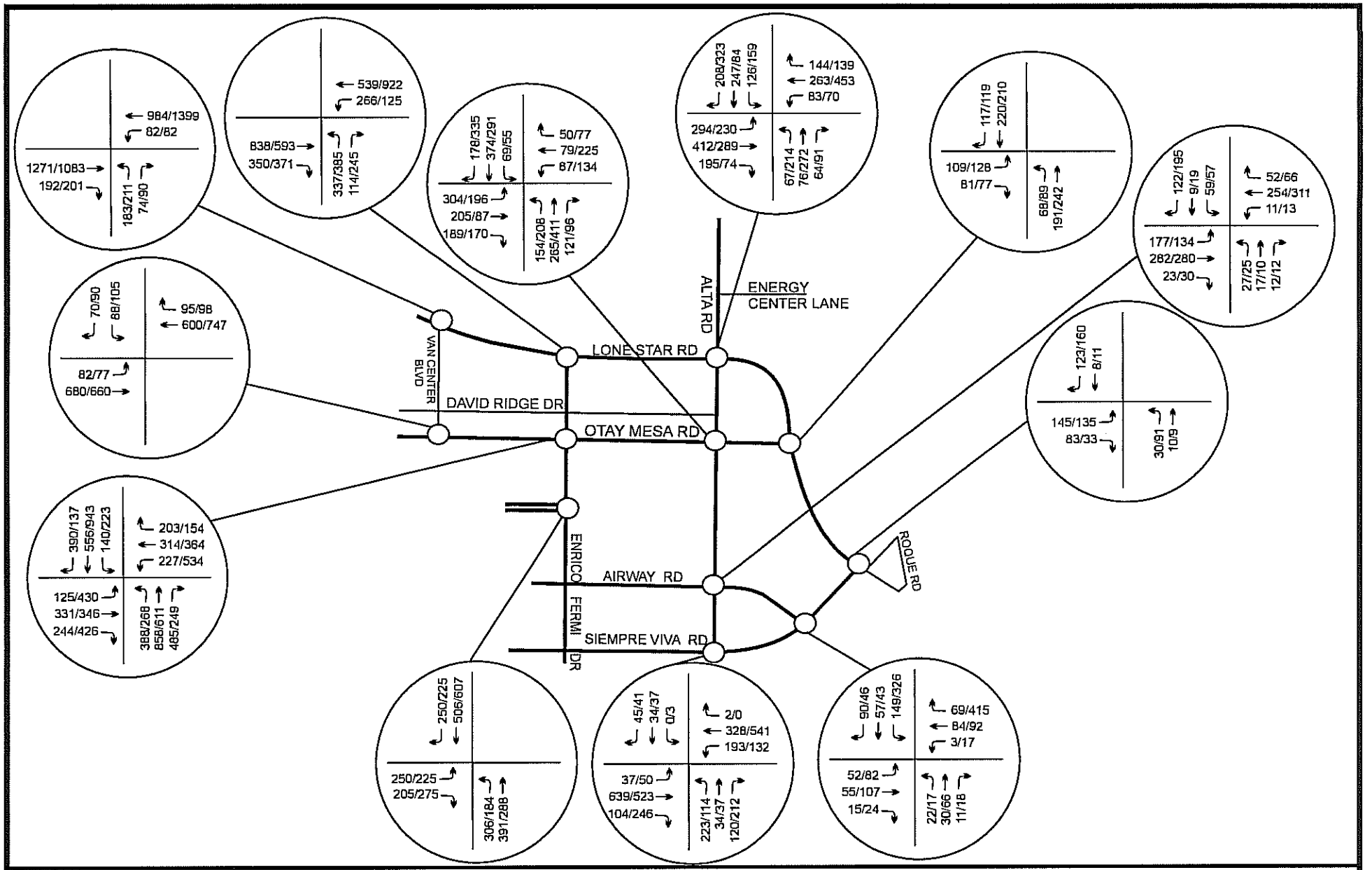


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-5c

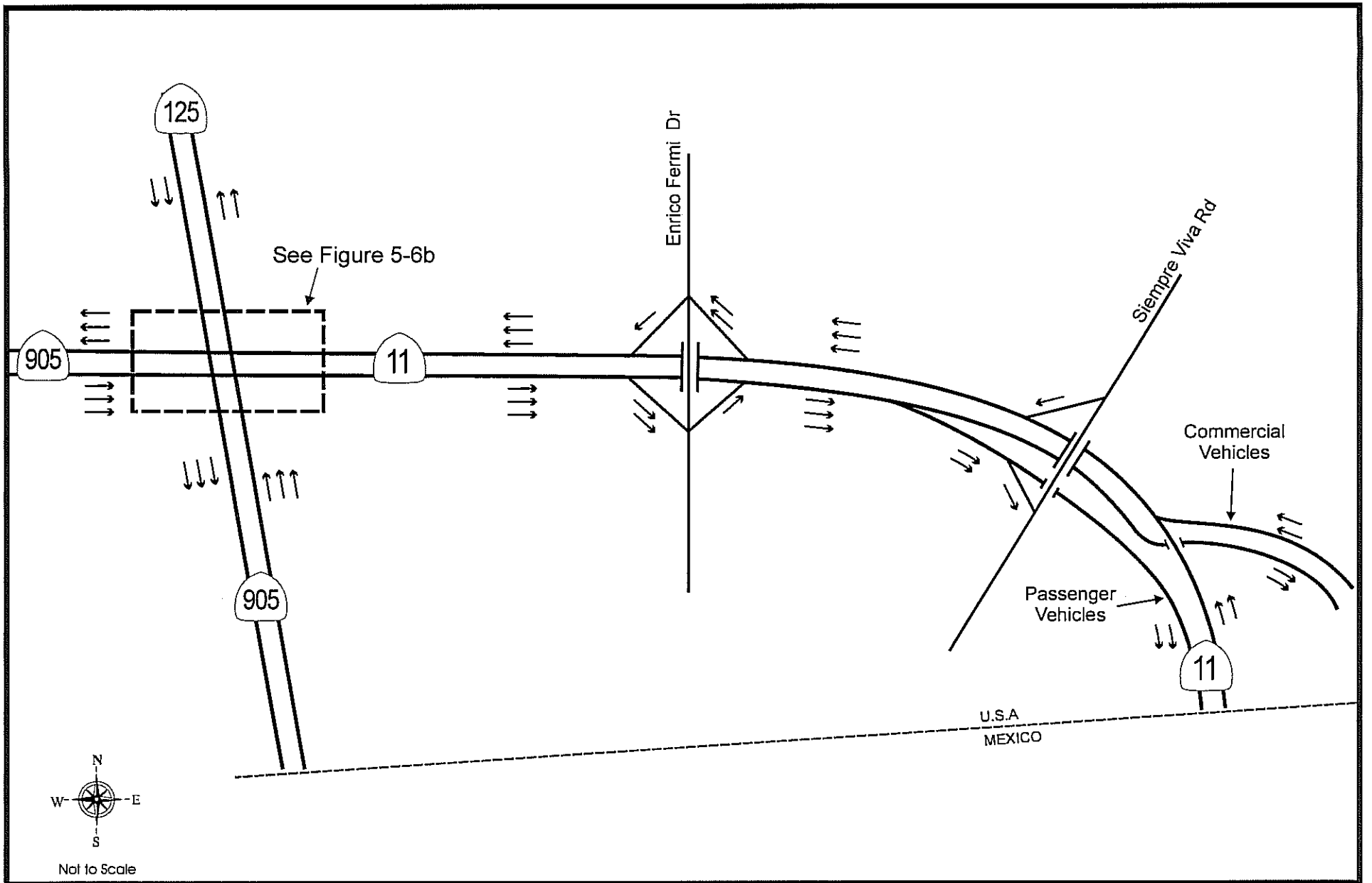


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Build

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-5d

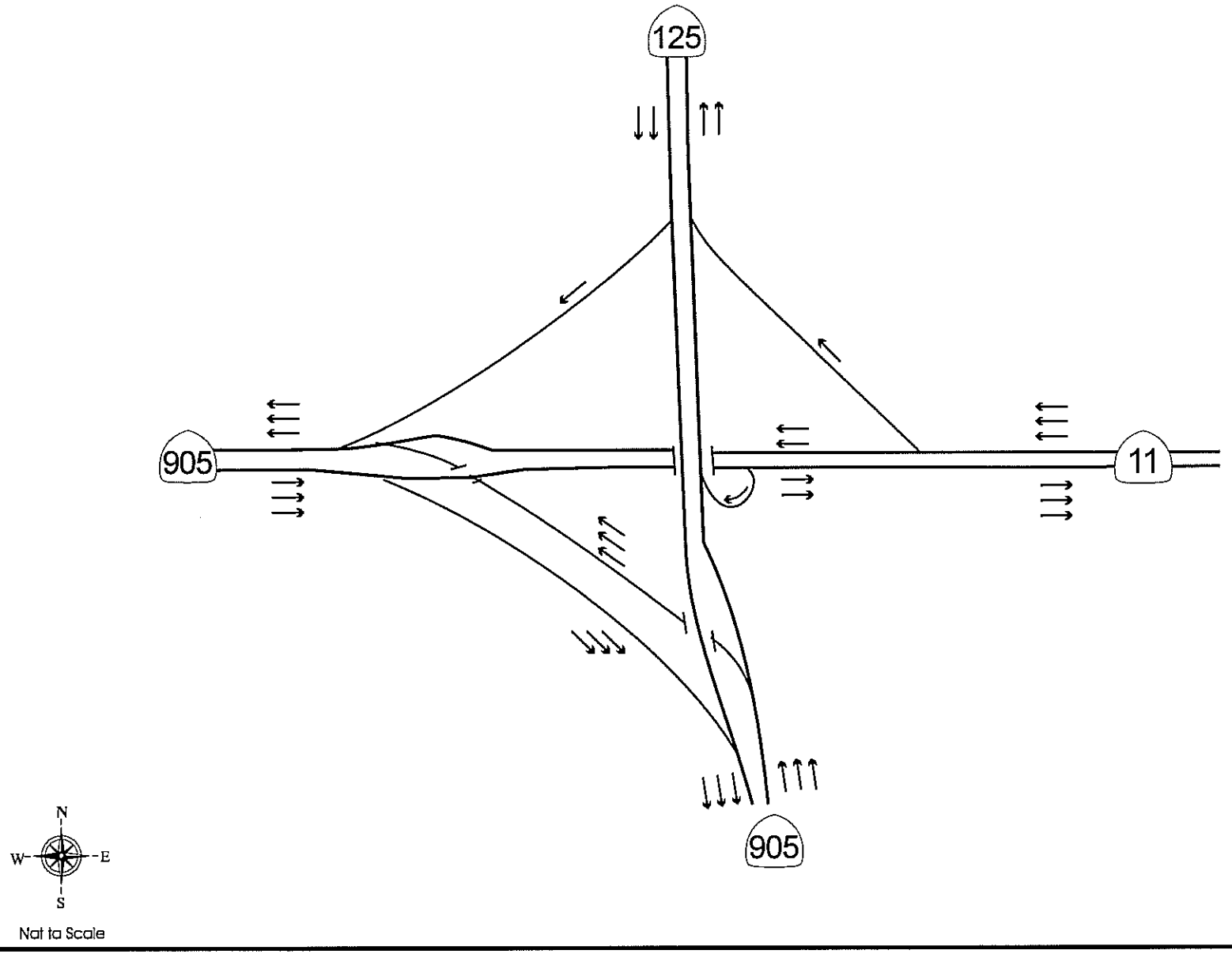


Horizon Year (2035) SR-11 Lane Geometry - Two Interchange Alternative

Legend

← Number of Lanes

Figure 5-6a

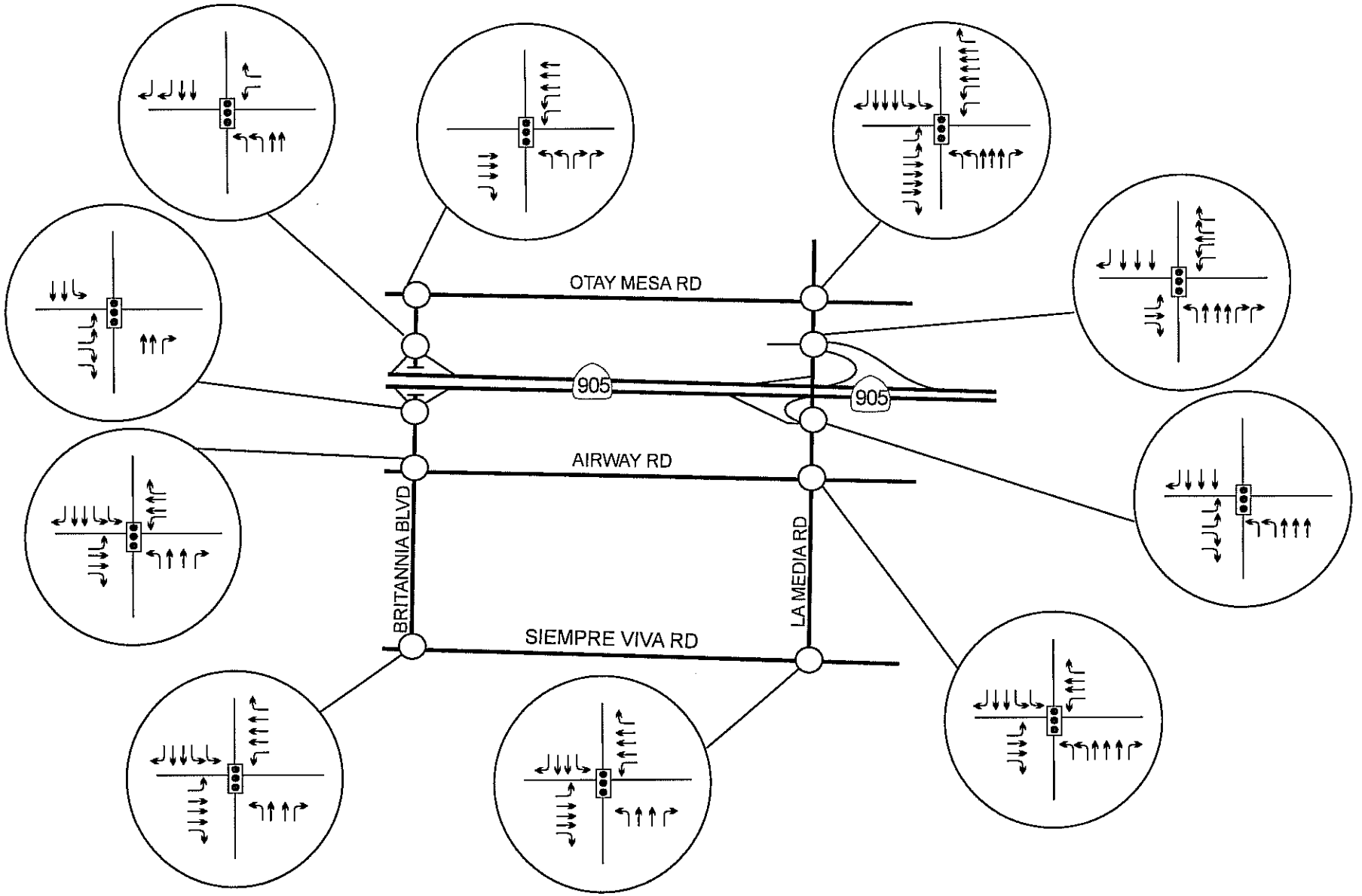


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry - Two Interchange Alternative

Legend

← Number of Lanes

Figure 5-6b

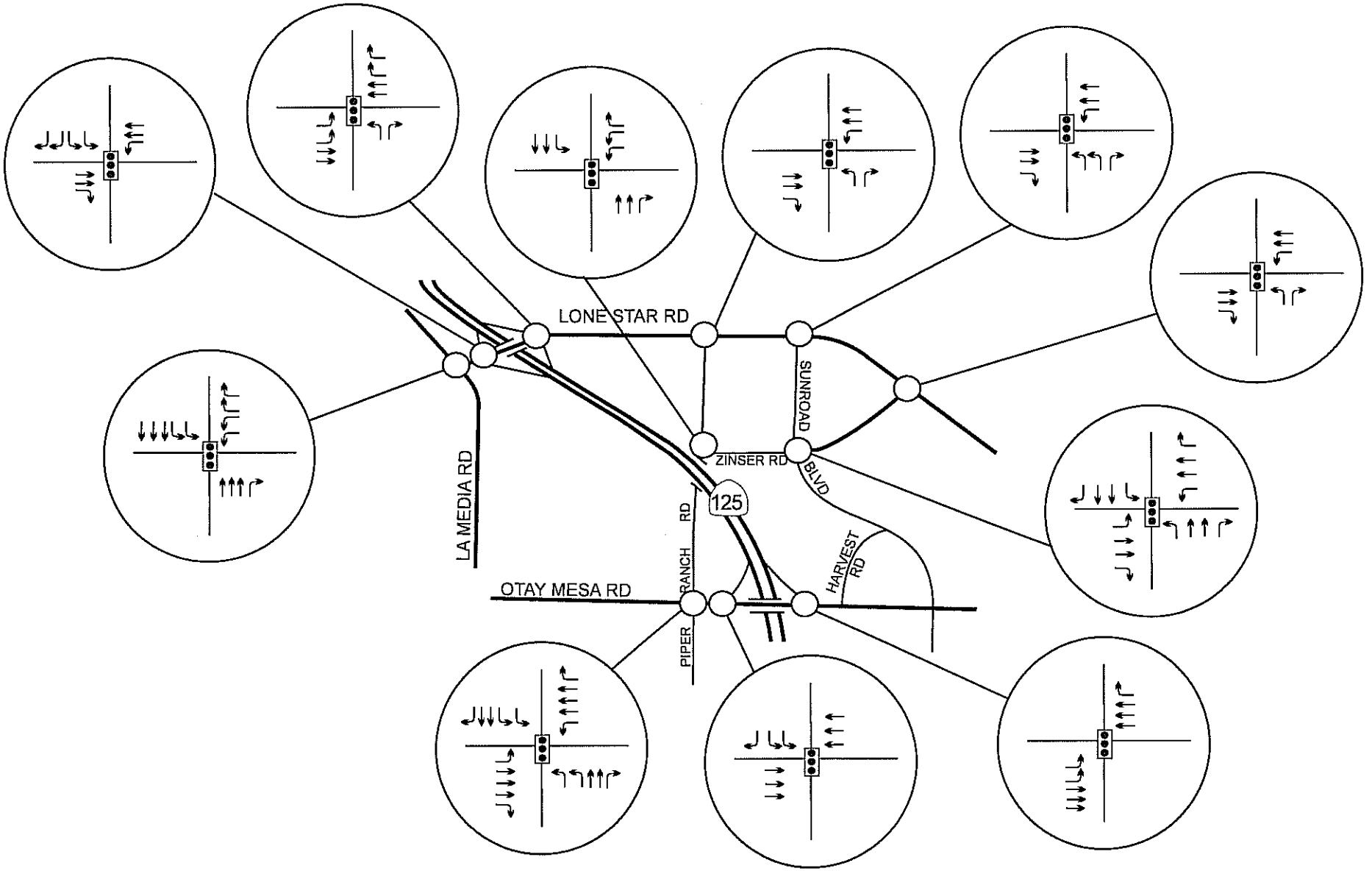


Horizon Year (2035) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-7a

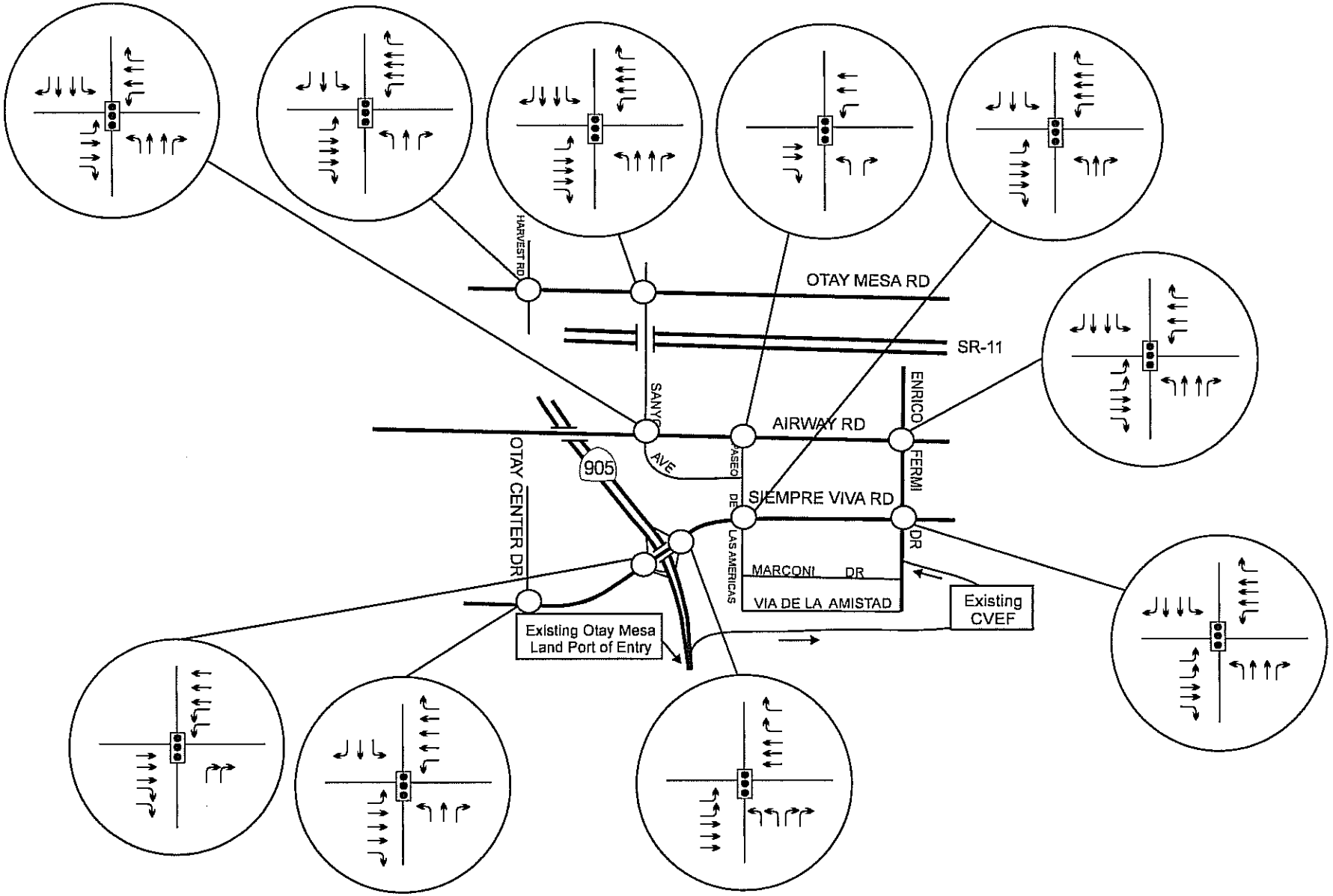


Horizon Year (2035) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-7b

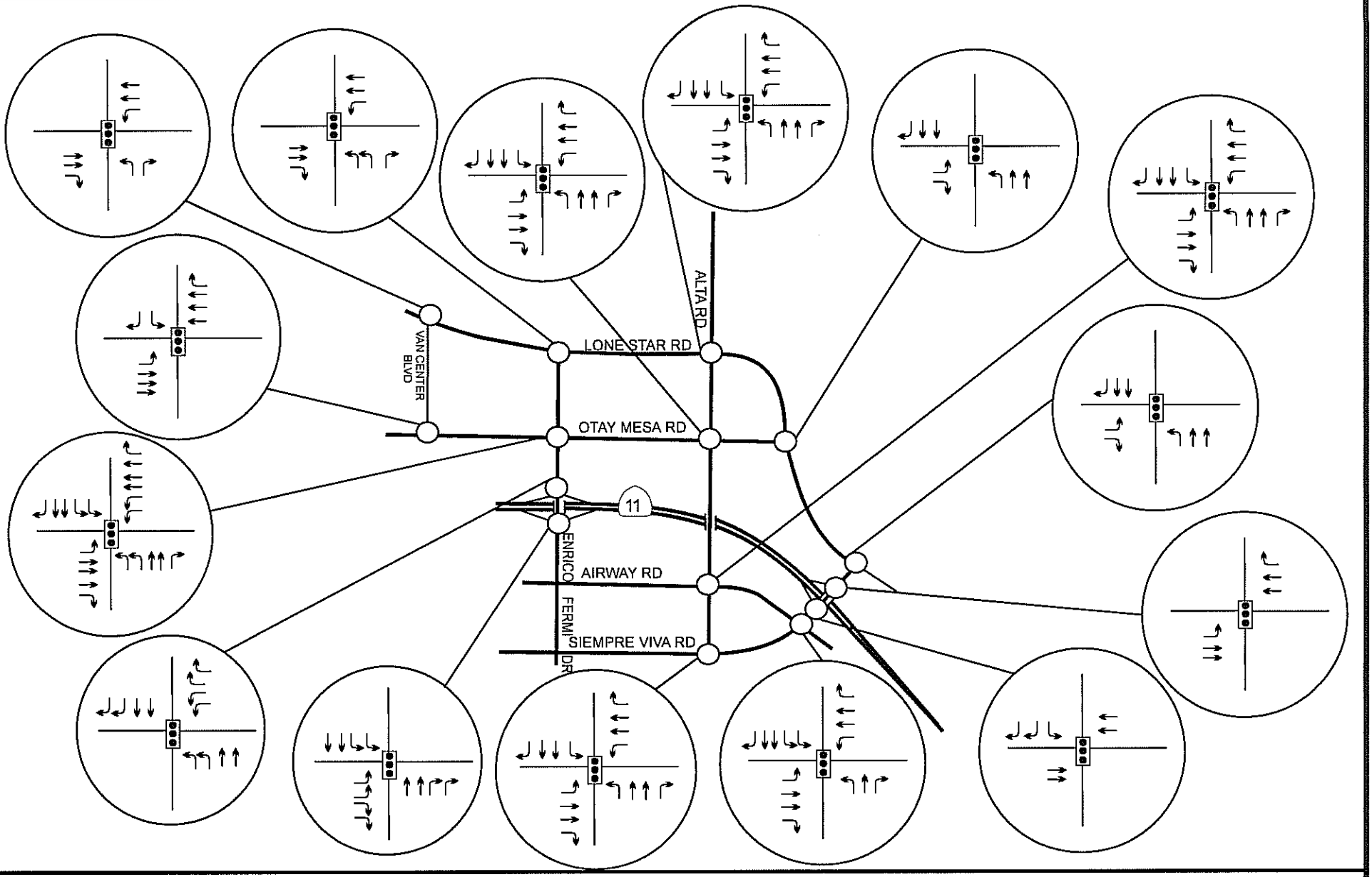


Horizon Year (2035) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-7c

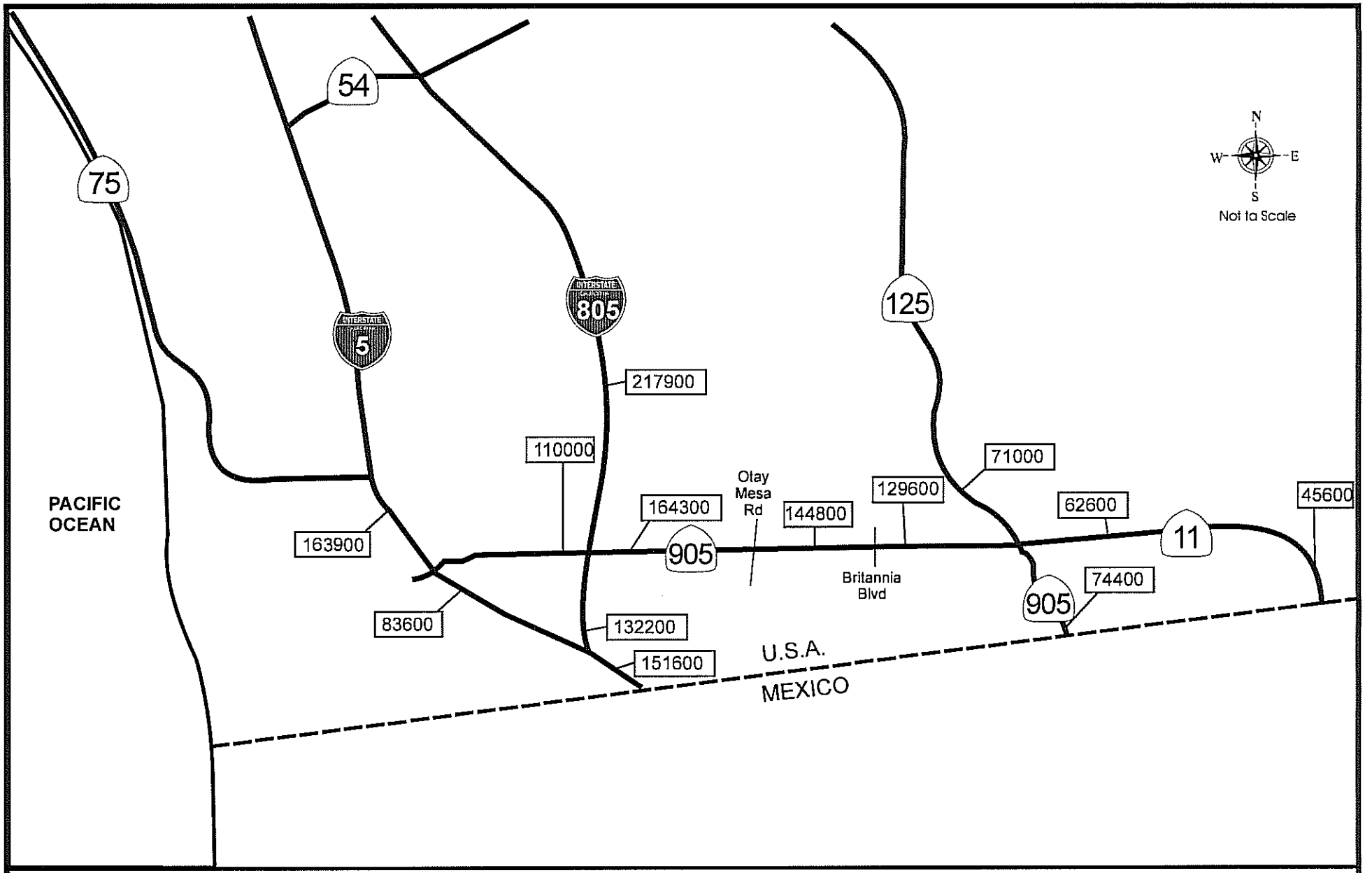


Horizon Year (2035) Intersection Lane Geometry - Two Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-7d



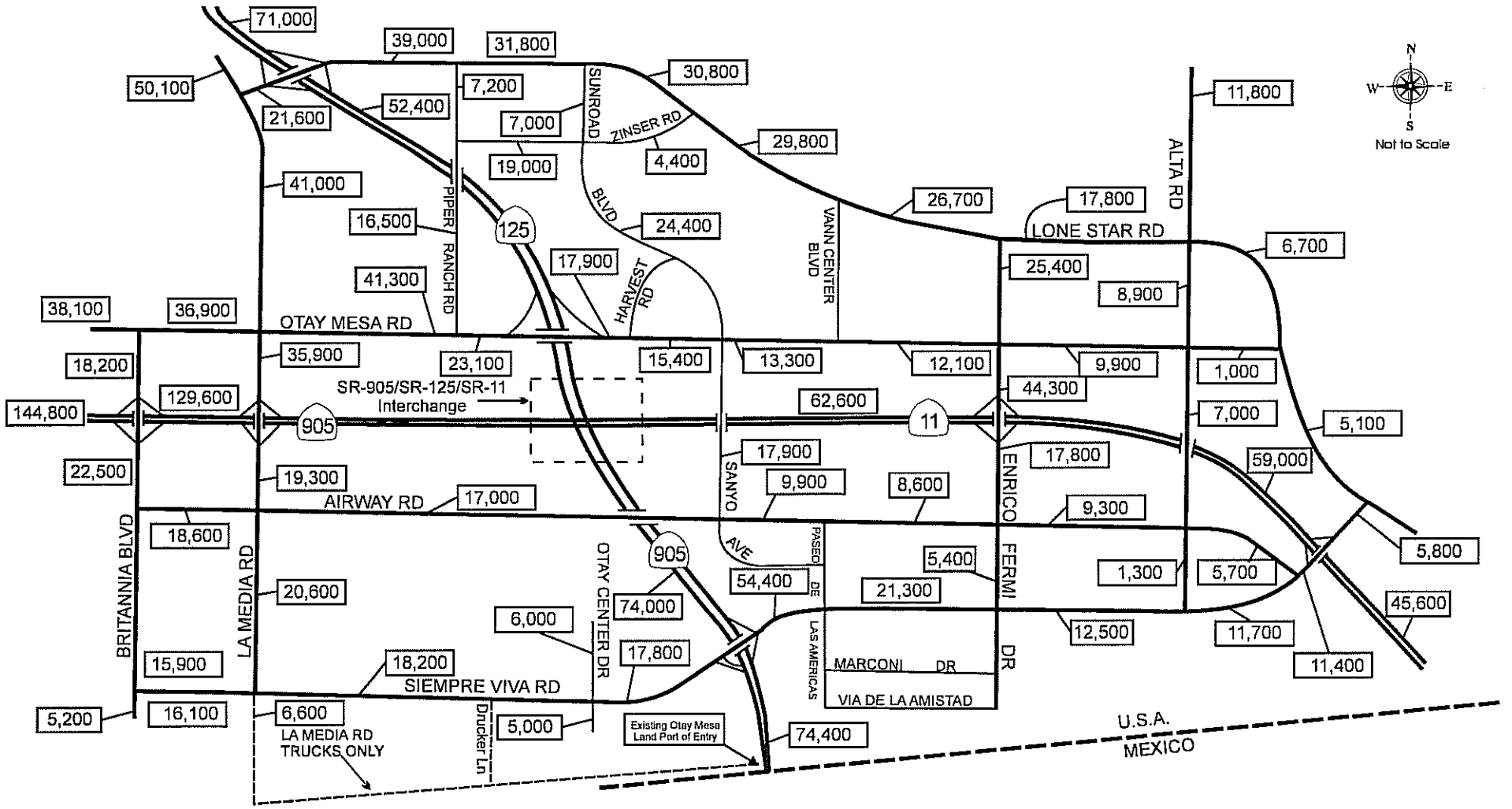
Horizon Year (2035) Average Daily Traffic - Two Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-8a



Horizon Year (2035) Average Daily Traffic - Two Interchange Alternative

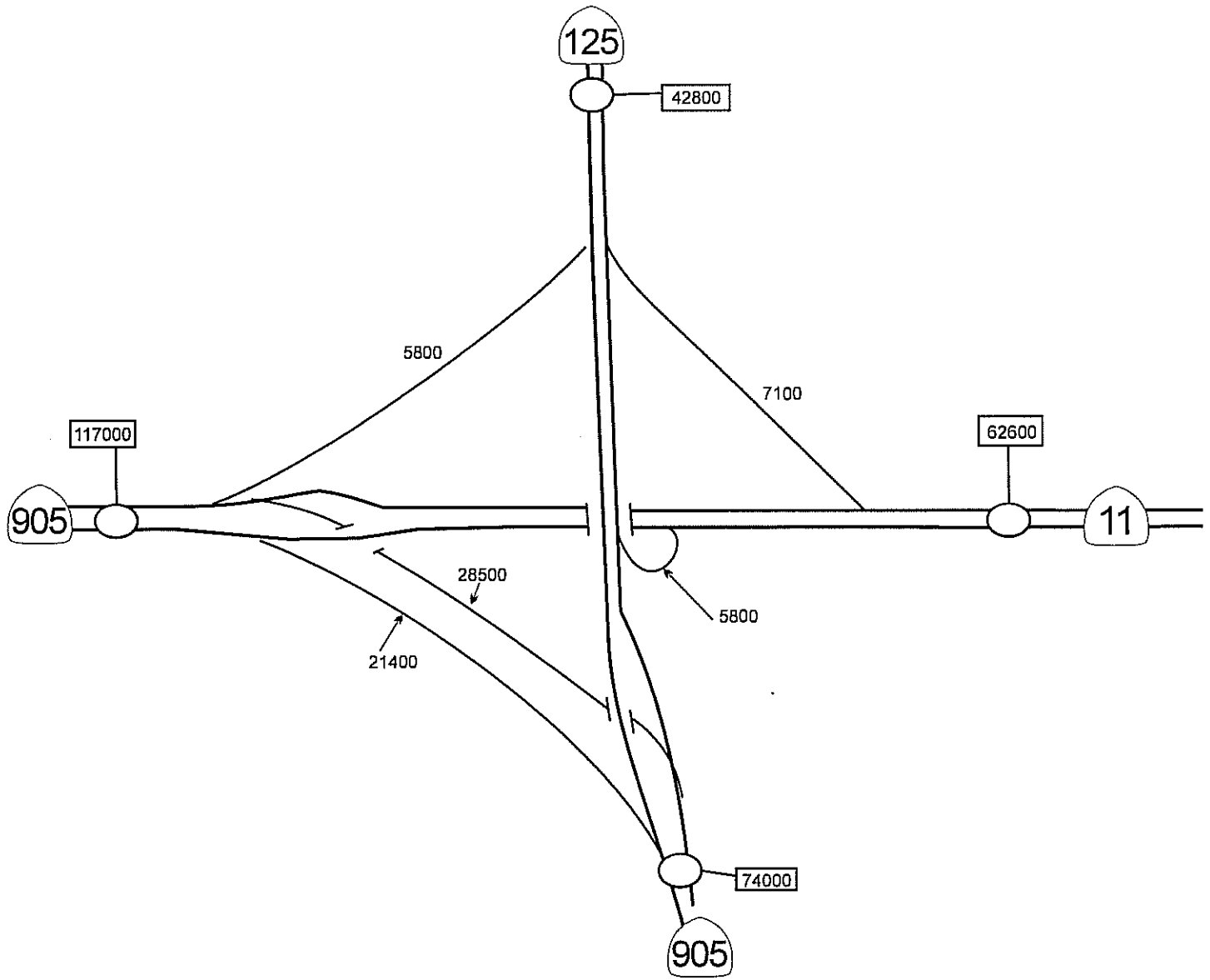
Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-8b

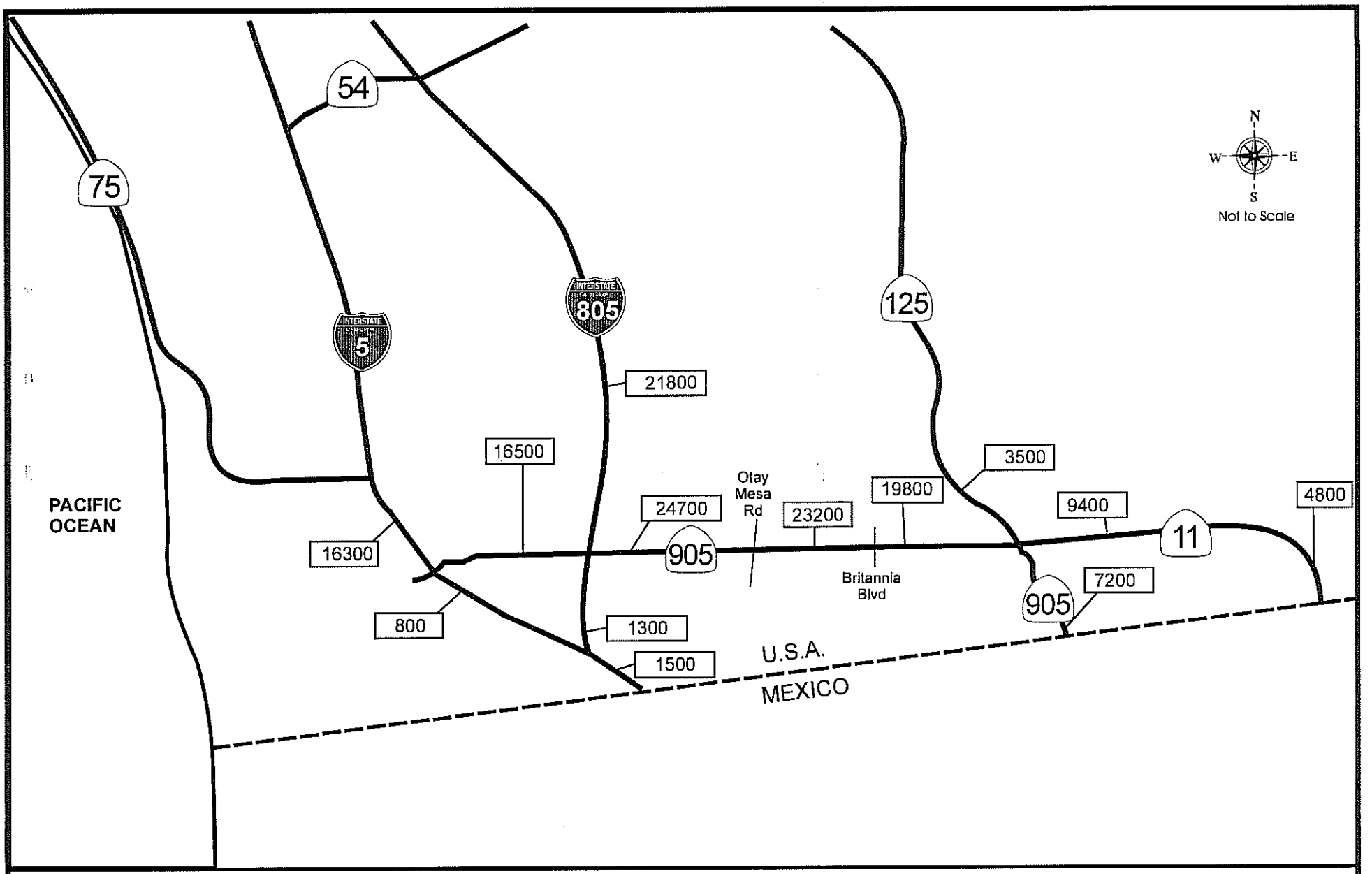


Horizon Year (2035) Average Daily Traffic - Two Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-8c



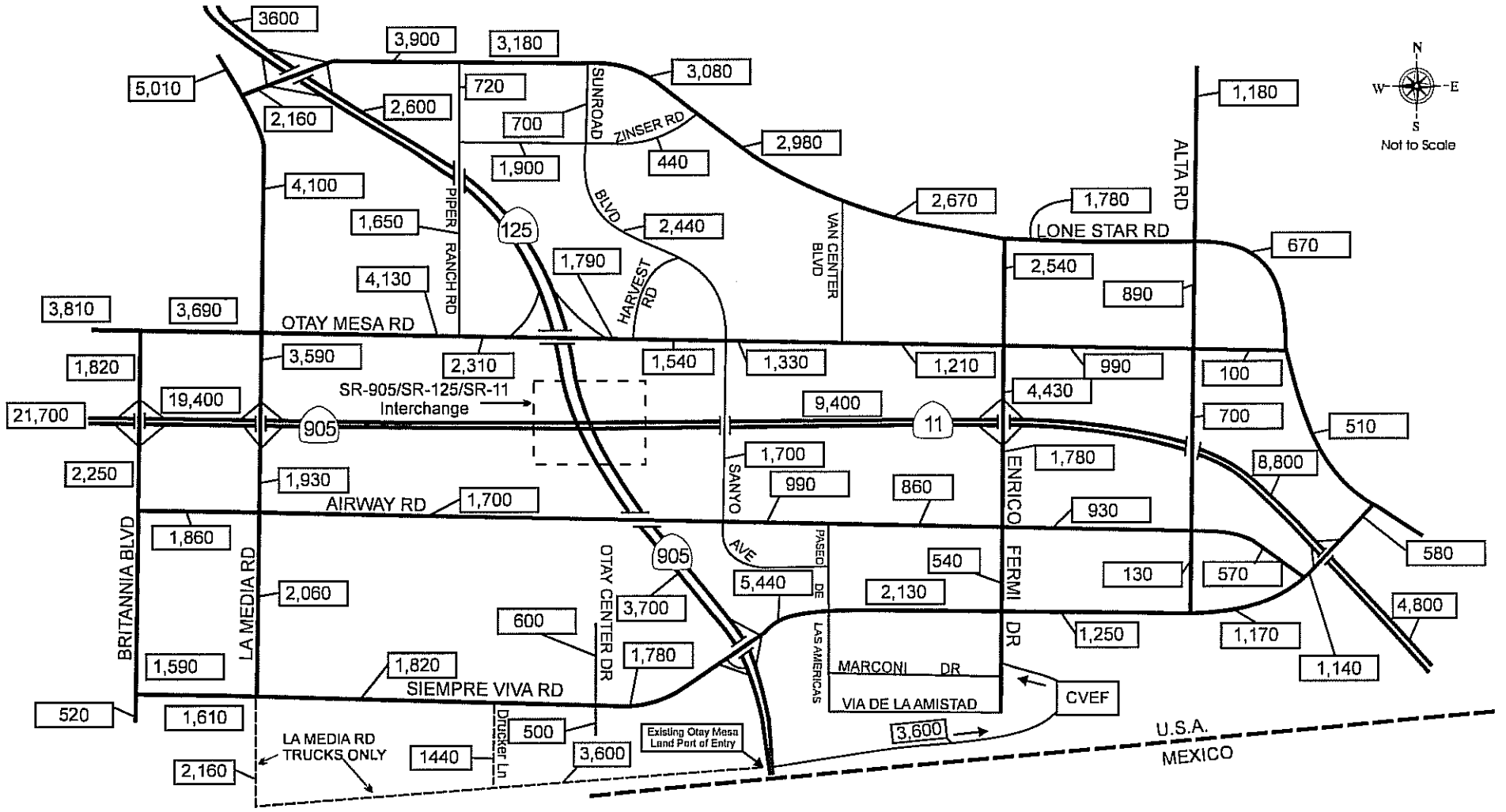
Horizon Year (2035) Daily Truck Trips - Two Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-9a



Horizon Year (2035) Daily Truck Trips - Two Interchange Alternative

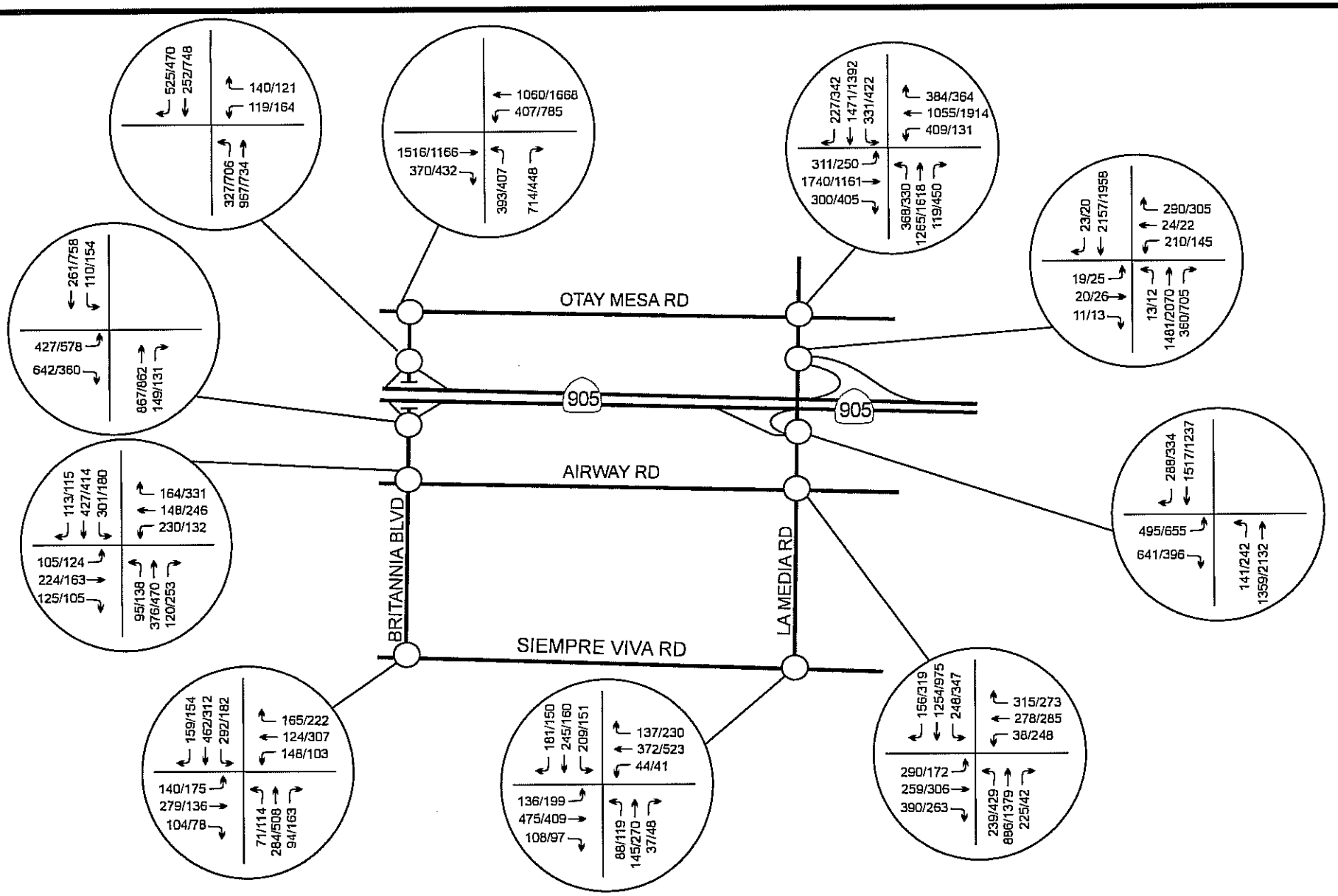
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-9b

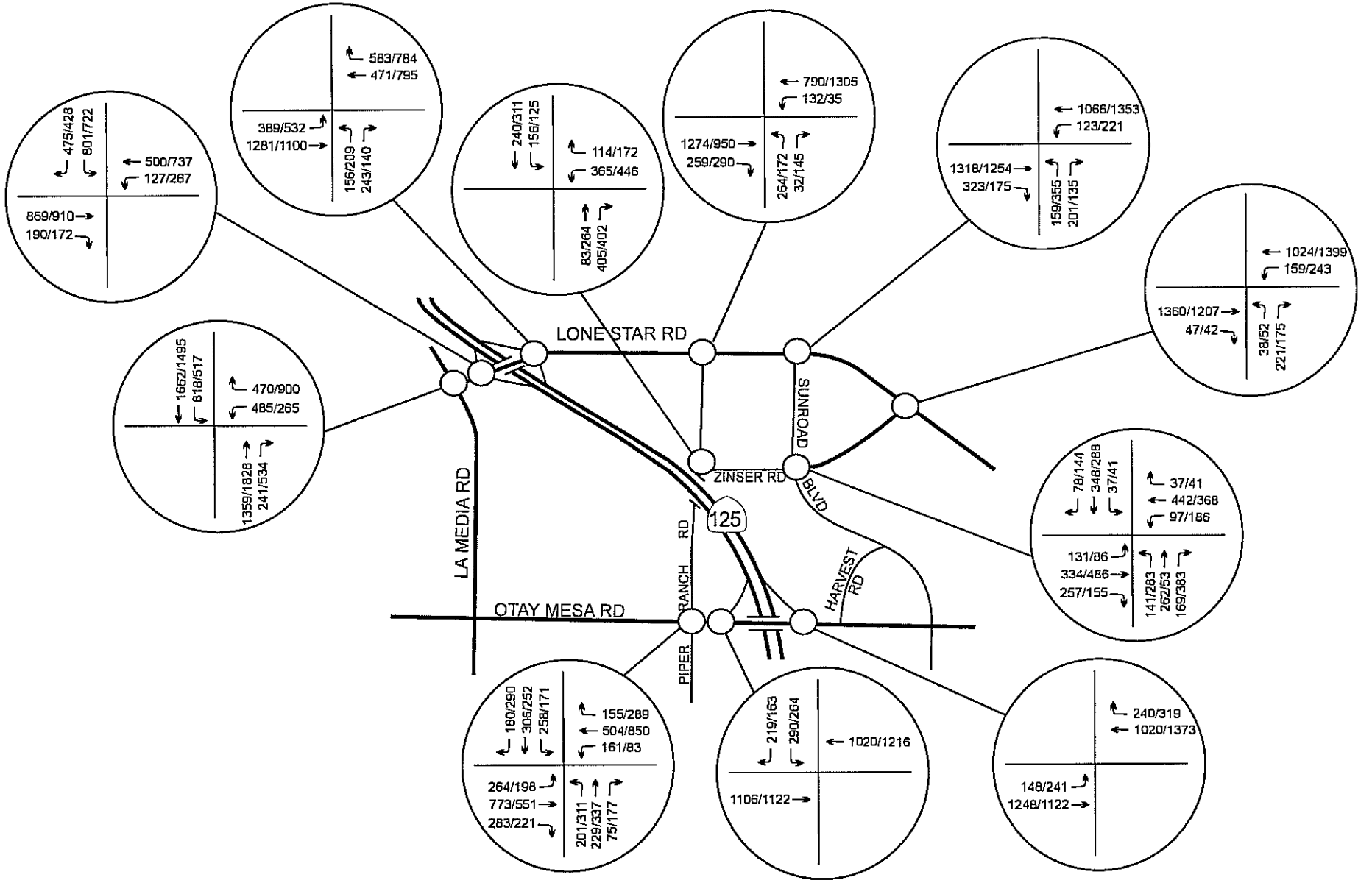


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-10a

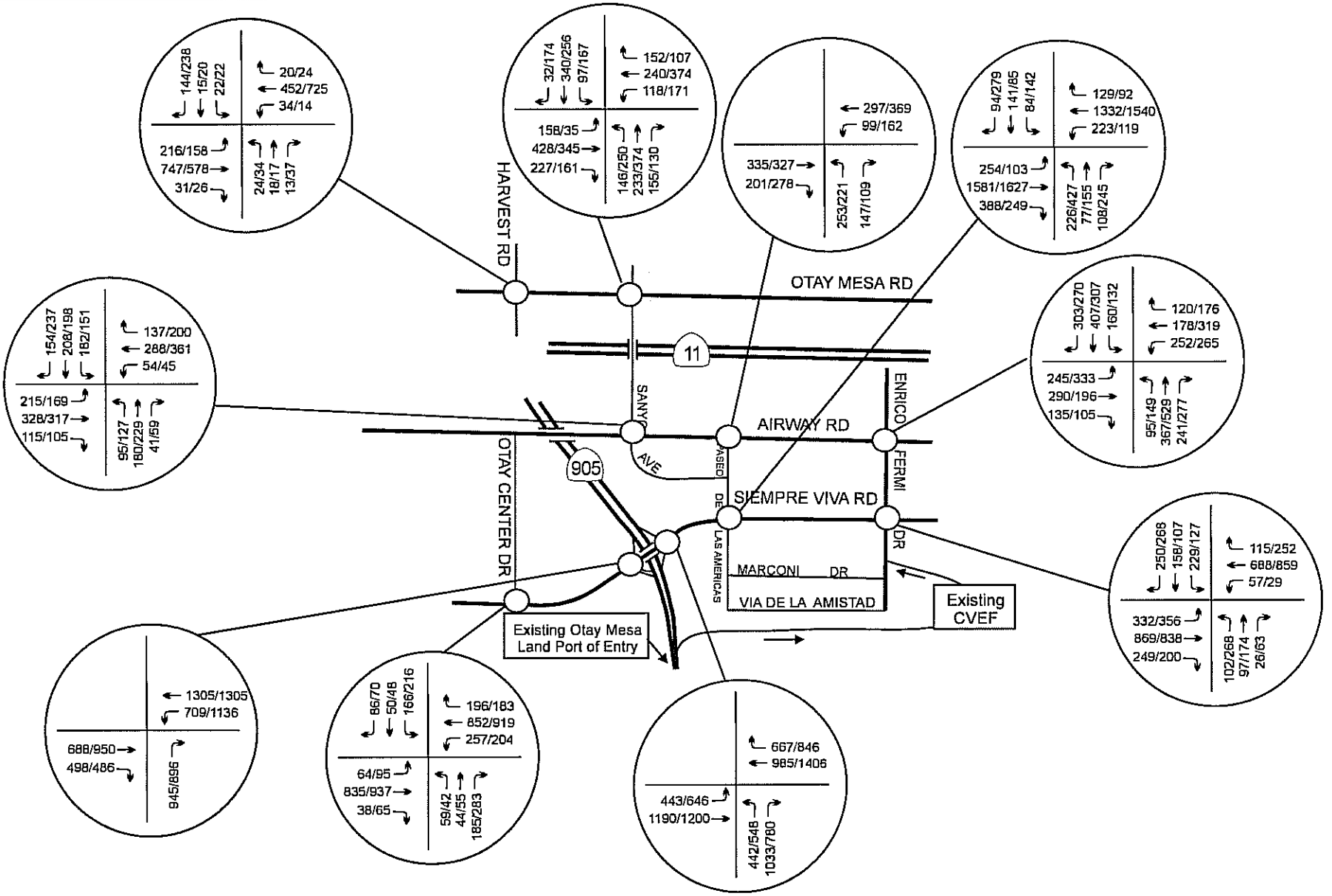


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-10b

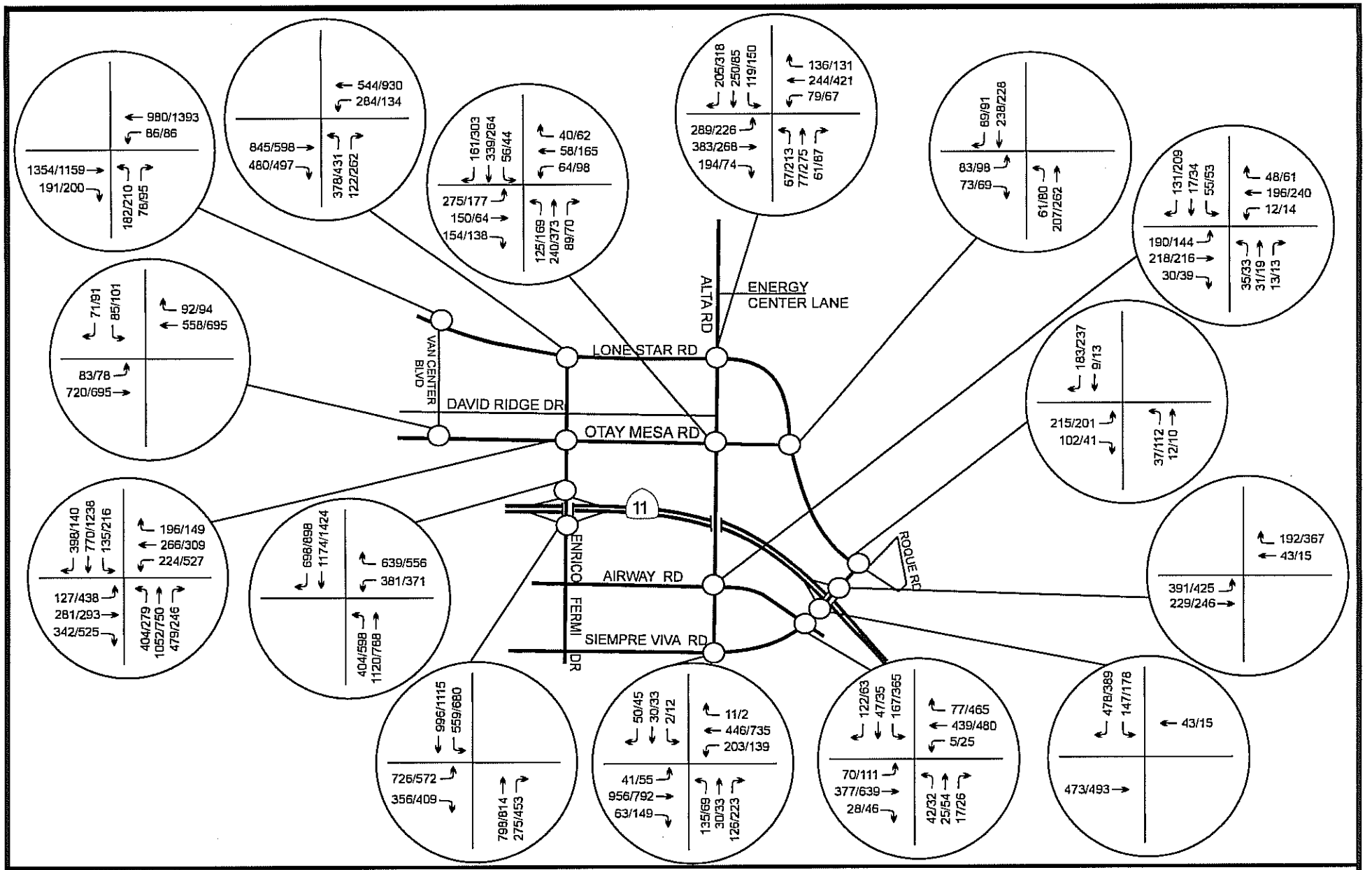


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-10c

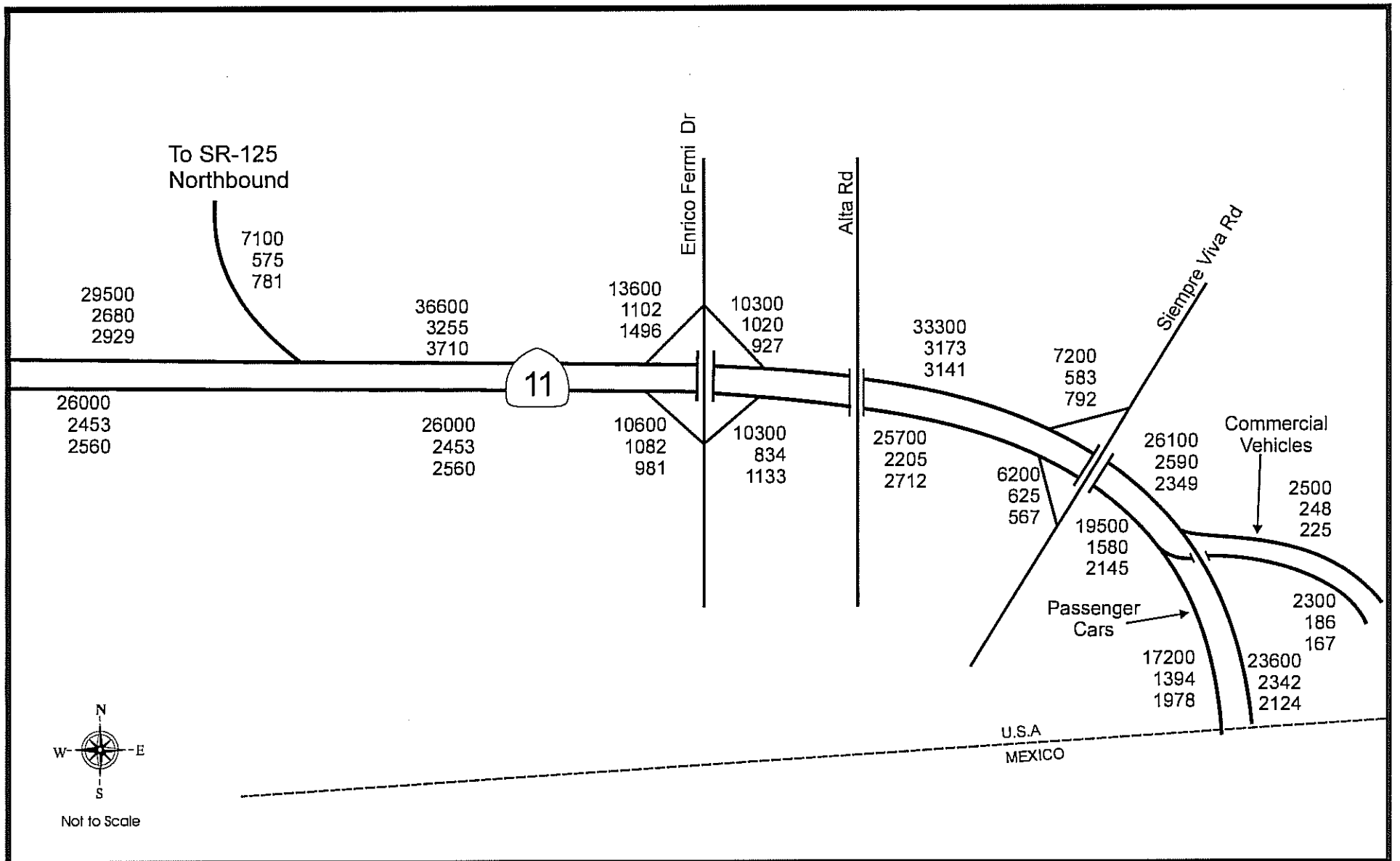


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-10d

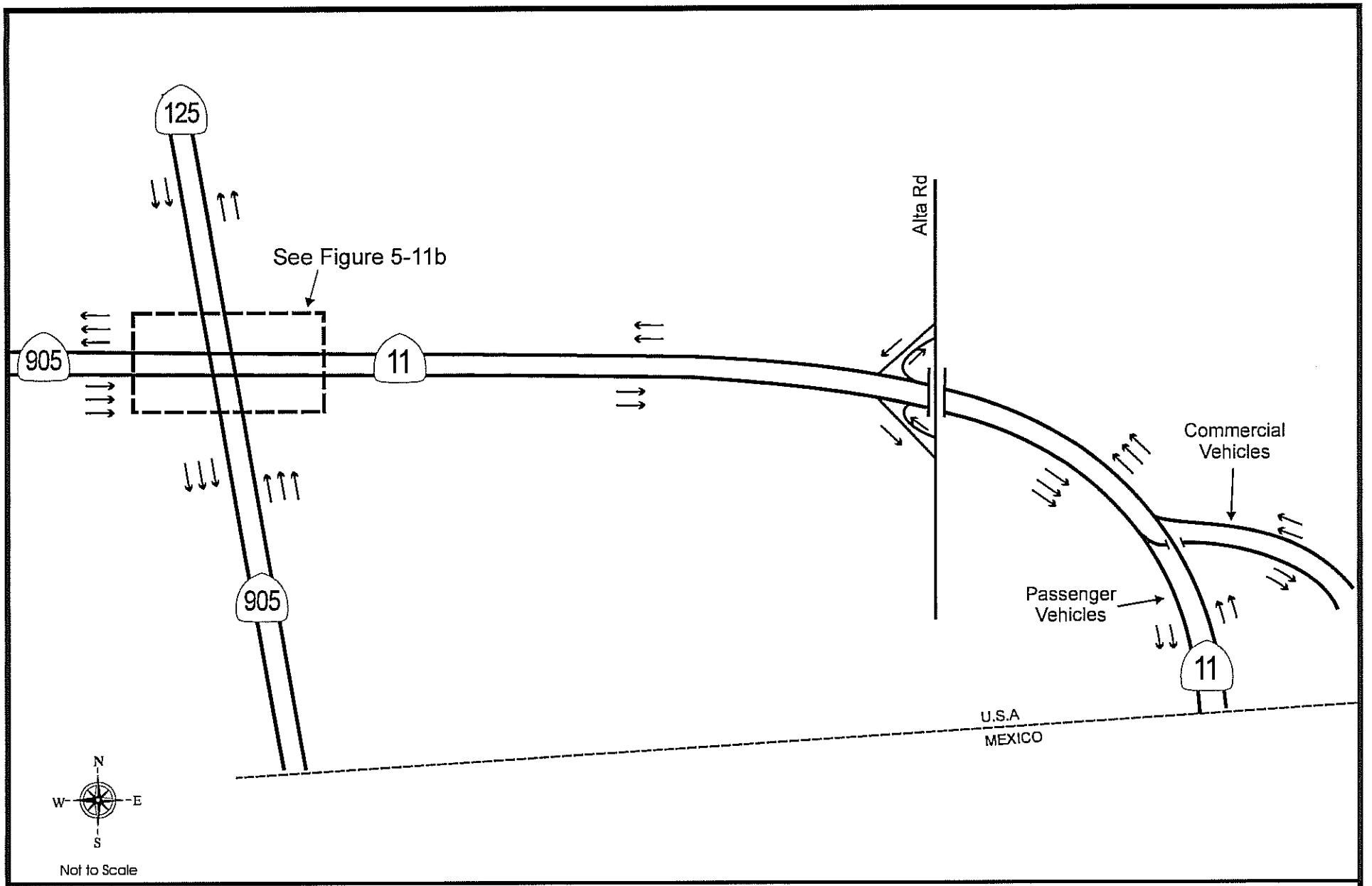


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - Two Interchange Alternative

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-10e

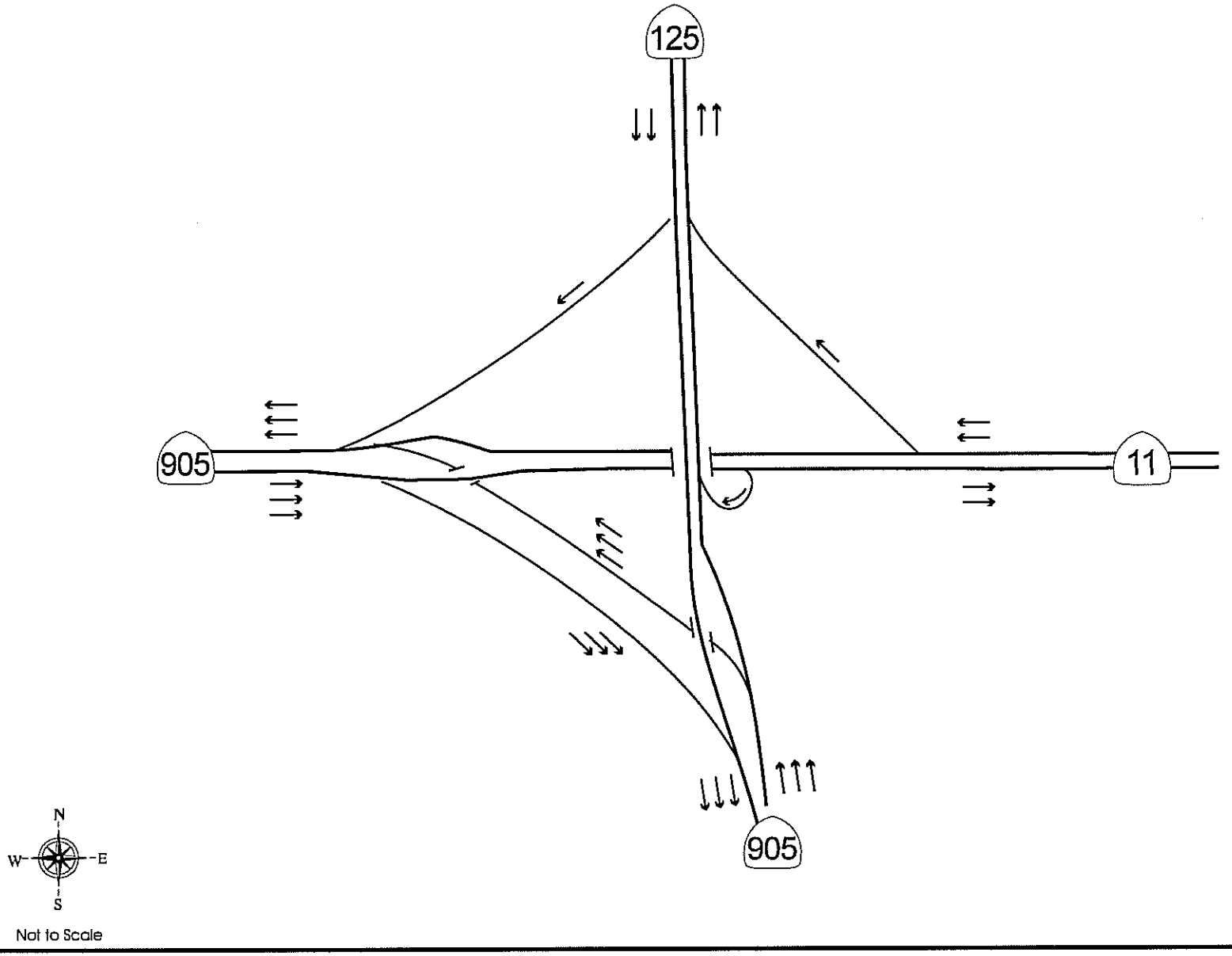


Horizon Year (2035) SR-11 Lane Geometry - One Interchange Alternative

Legend

← Number of Lanes

Figure 5-11a

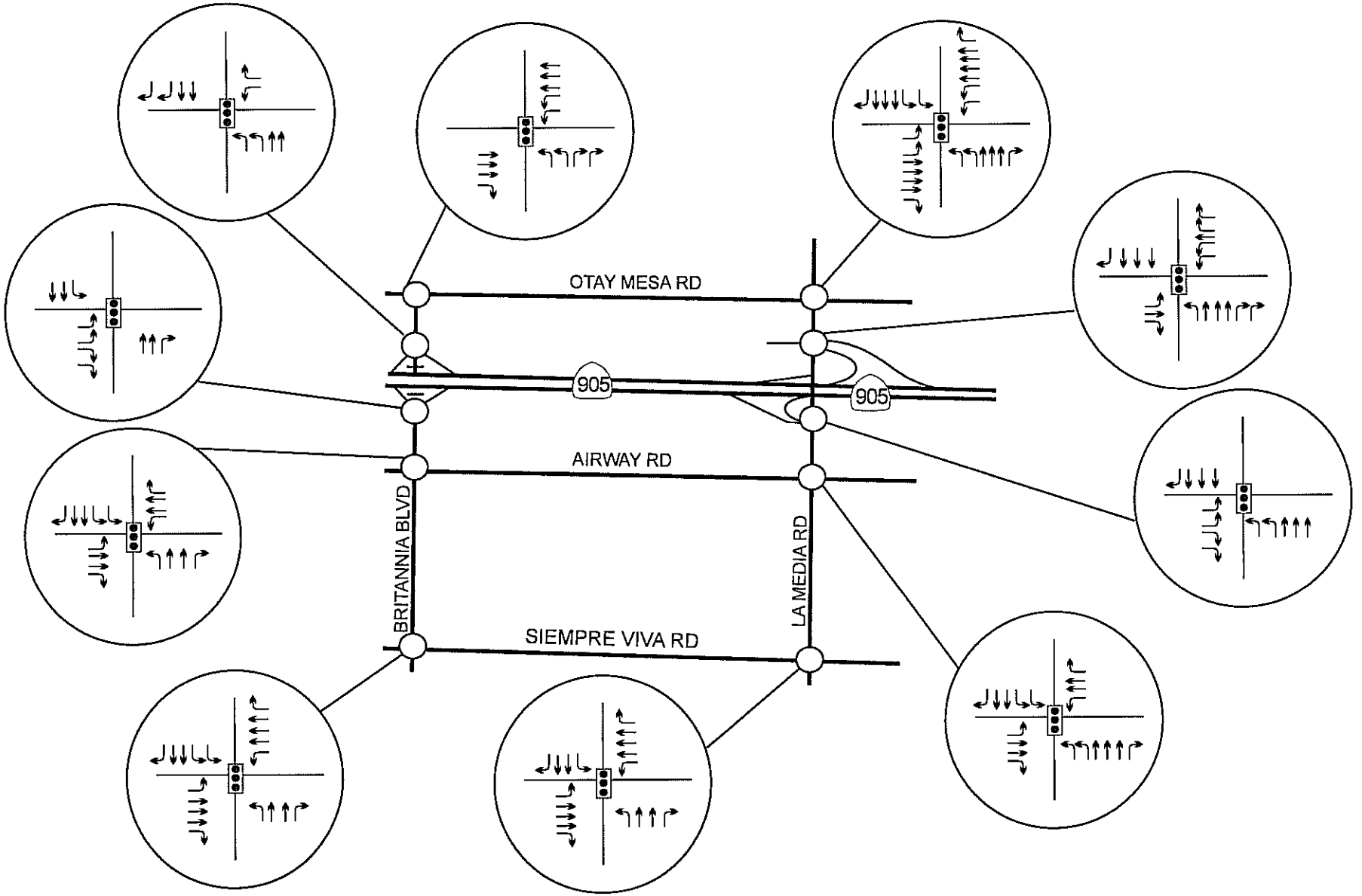


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
One Interchange Alternative

Legend

← Number of Lanes

Figure 5-11b

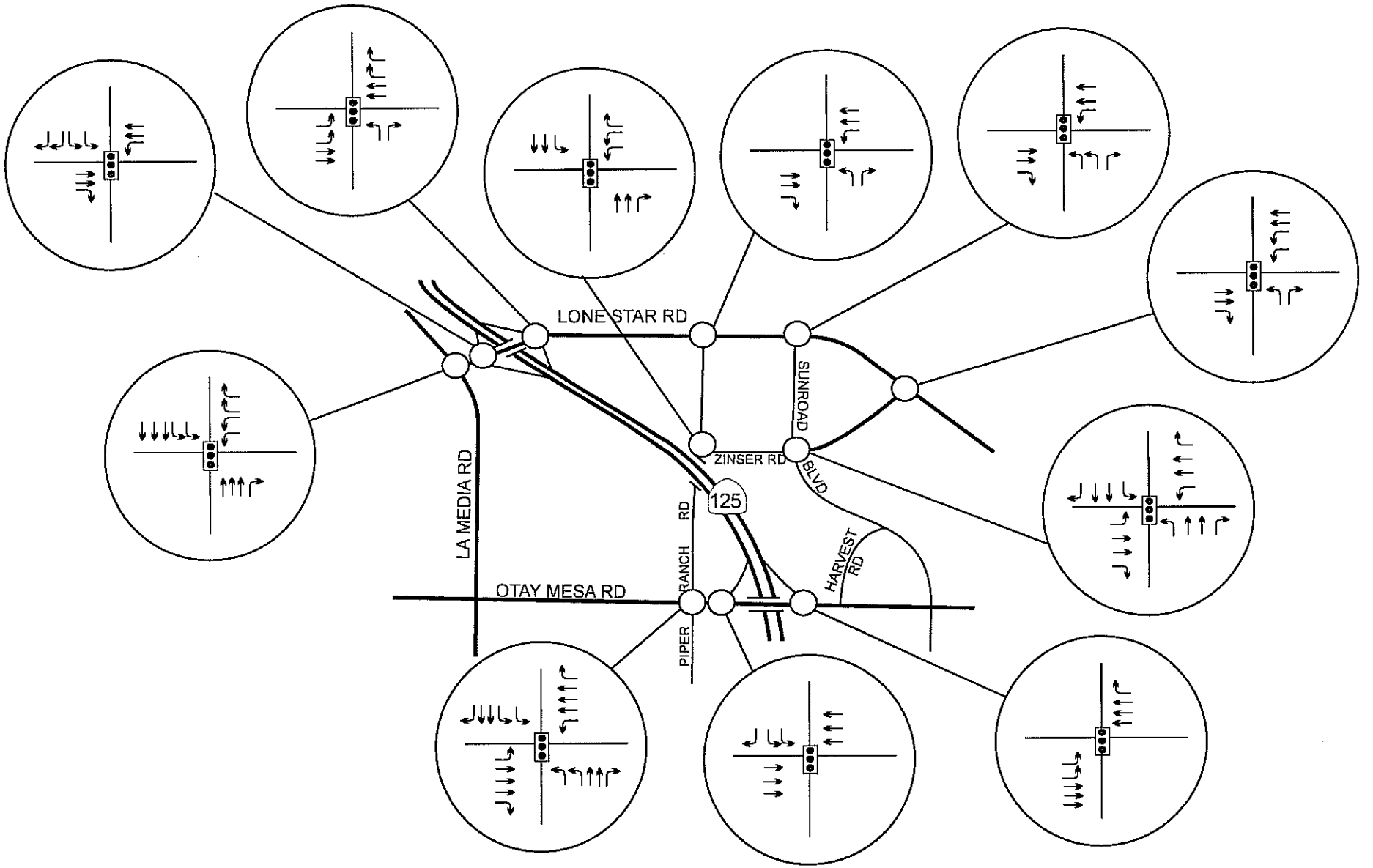


Horizon Year (2035) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-12a

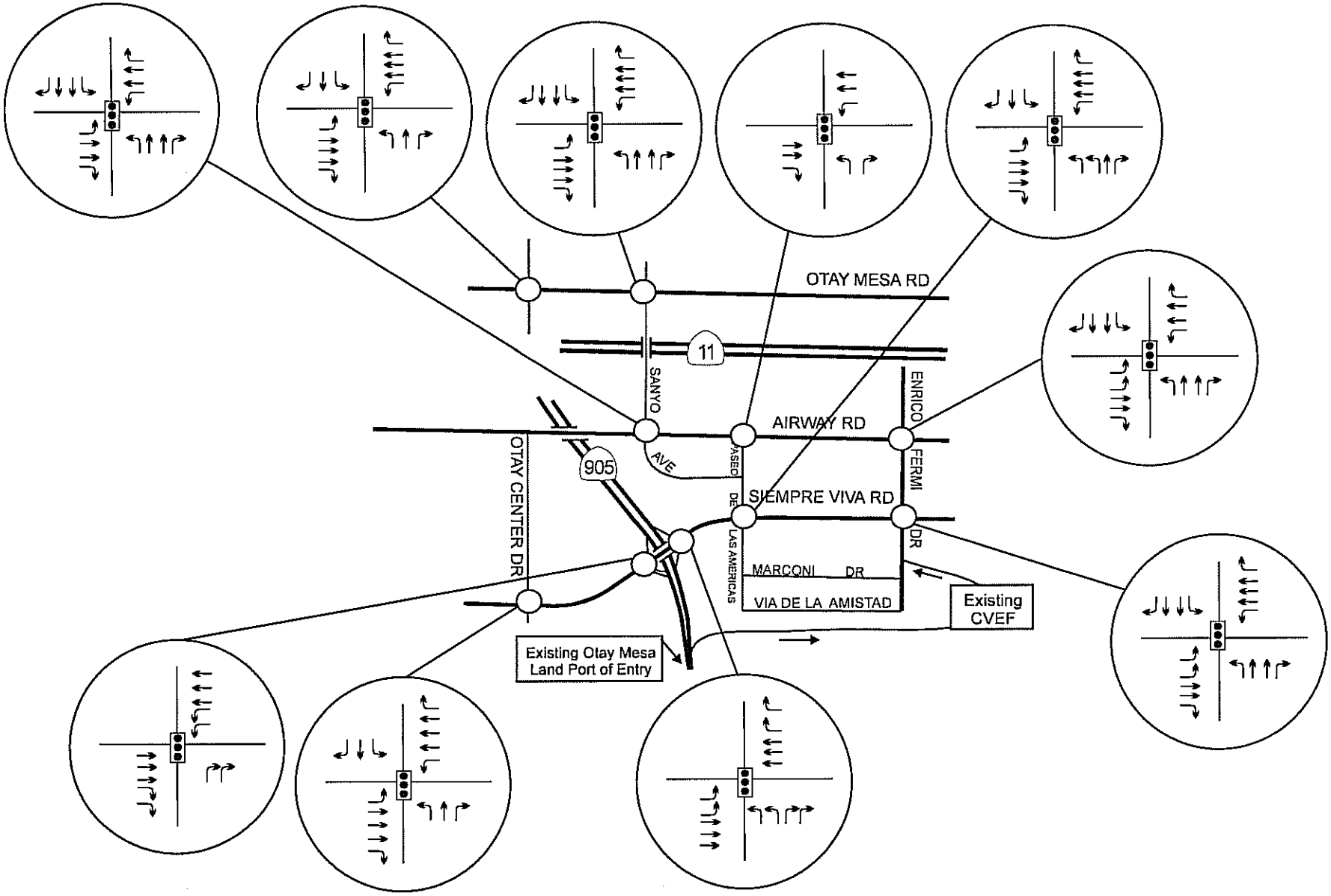


Horizon Year (2035) Intersection Lane Geometry - One Interchange Alternaitve

Legend

Direction of Travel Stop Sign Signal

Figure 5-12b

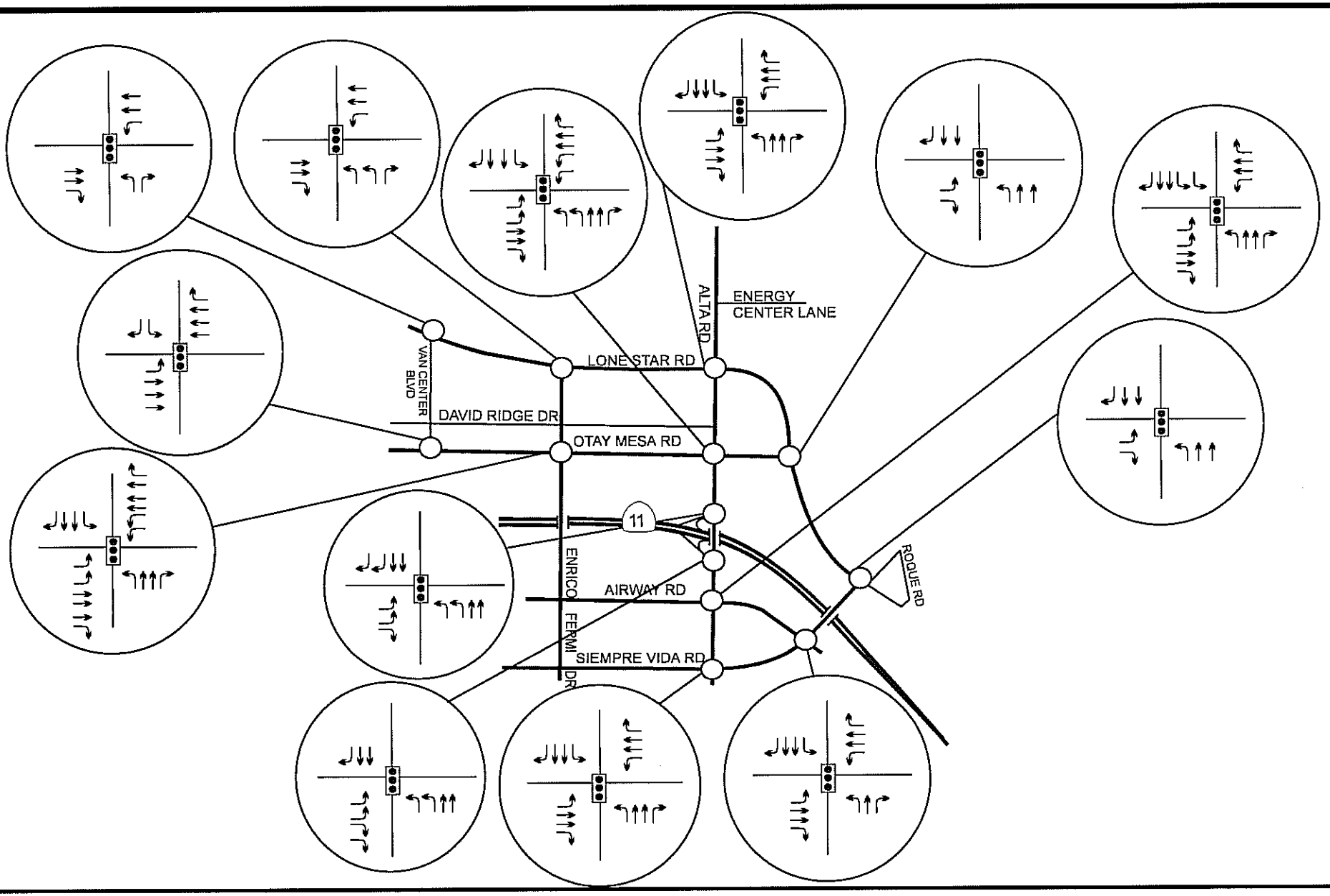


Horizon Year (2035) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-12c

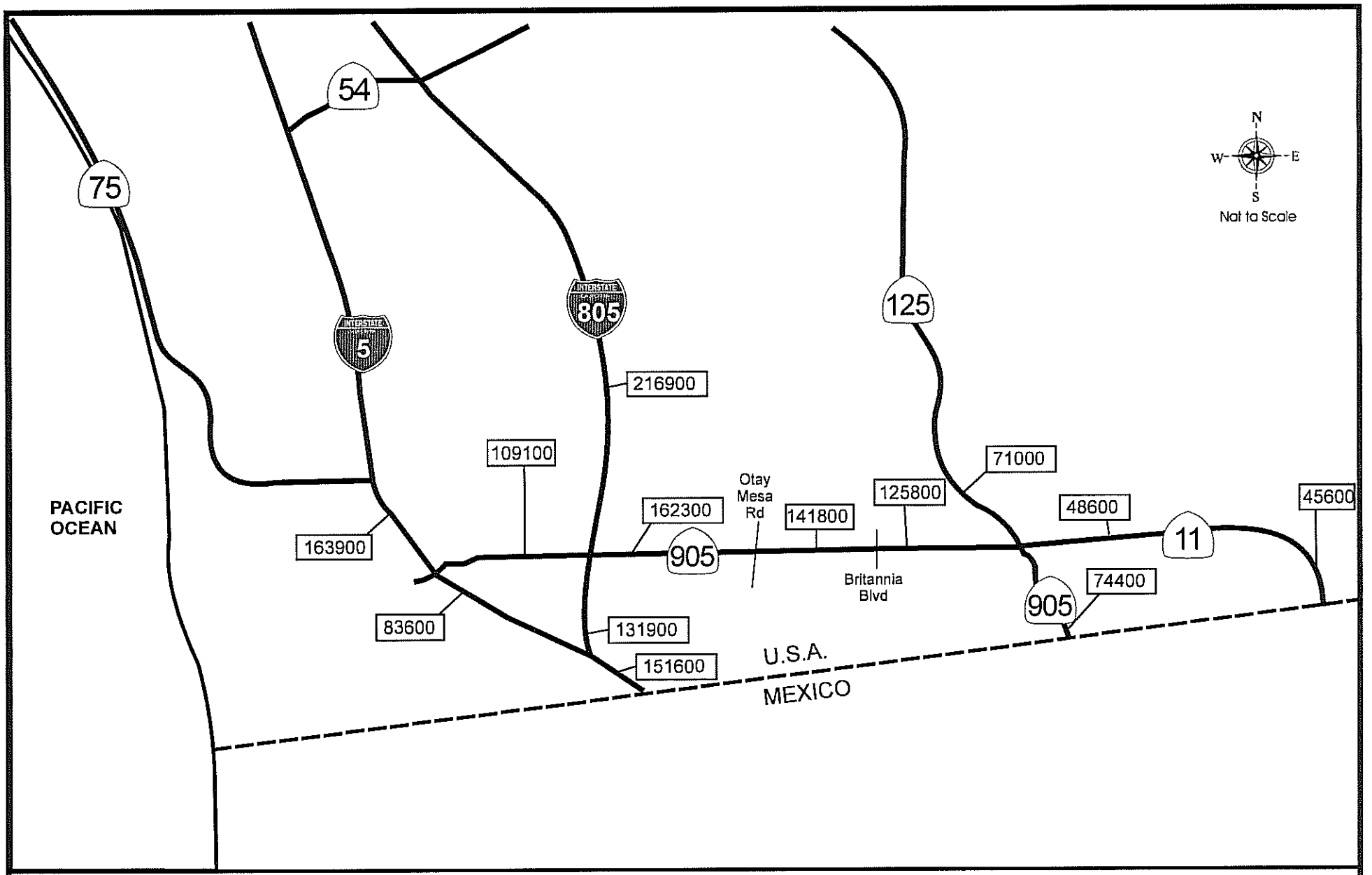


Horizon Year (2035) Intersection Lane Geometry - One Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-12d



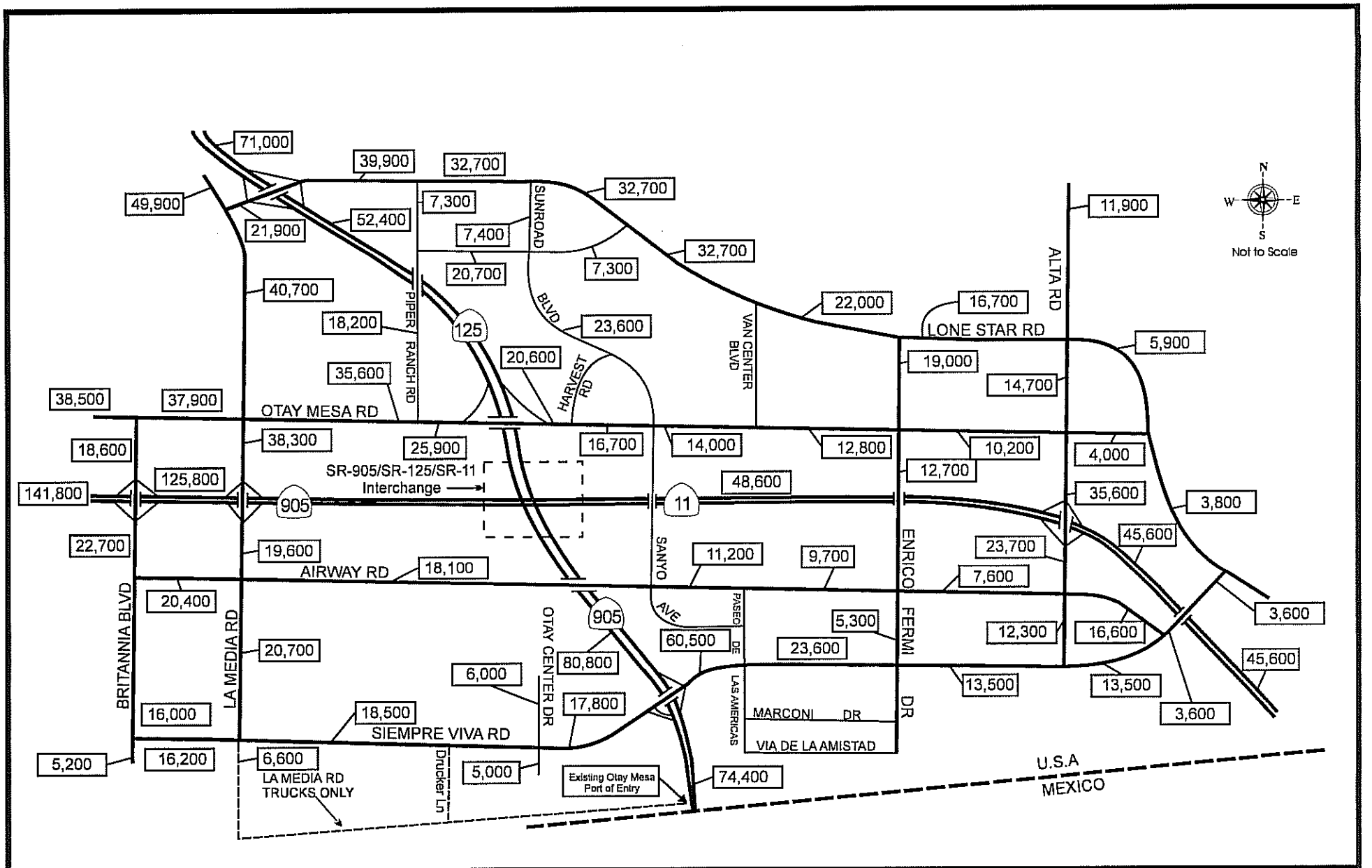
Horizon Year (2035) Average Daily Traffic - One Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-13a

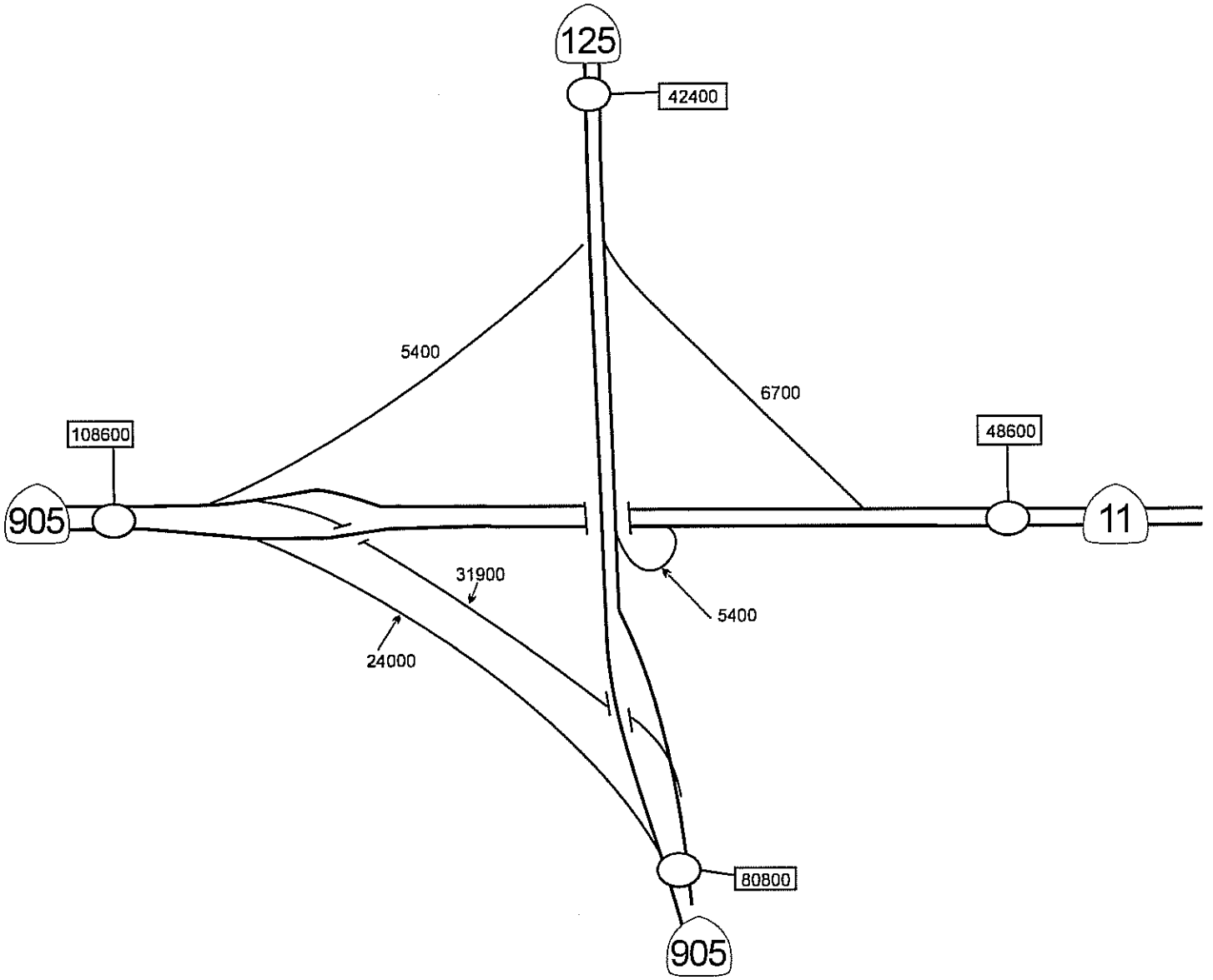


Horizon Year (2035) Average Daily Traffic - One Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-13b

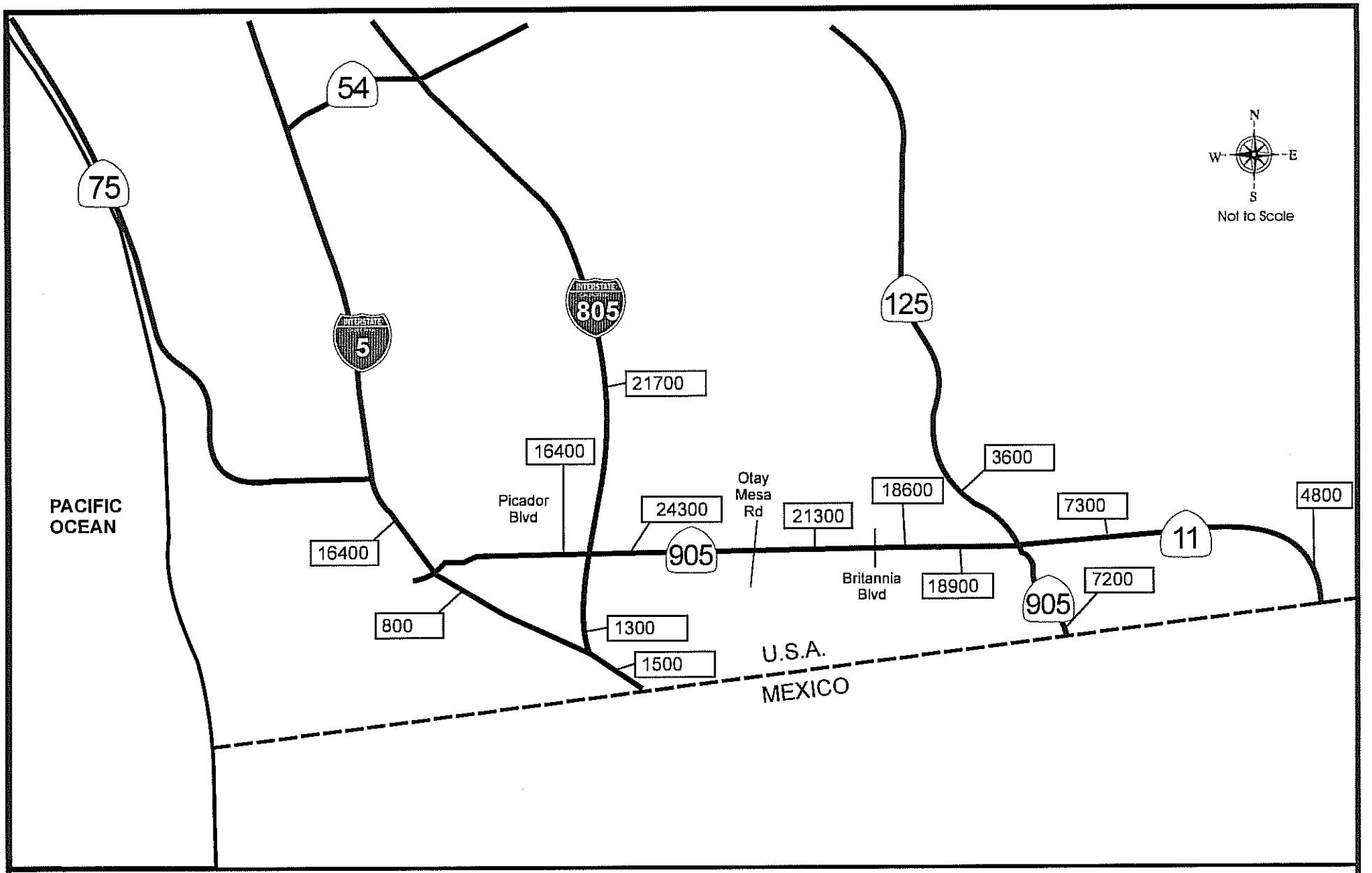


Horizon Year (2035) Average Daily Traffic - One Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-13c



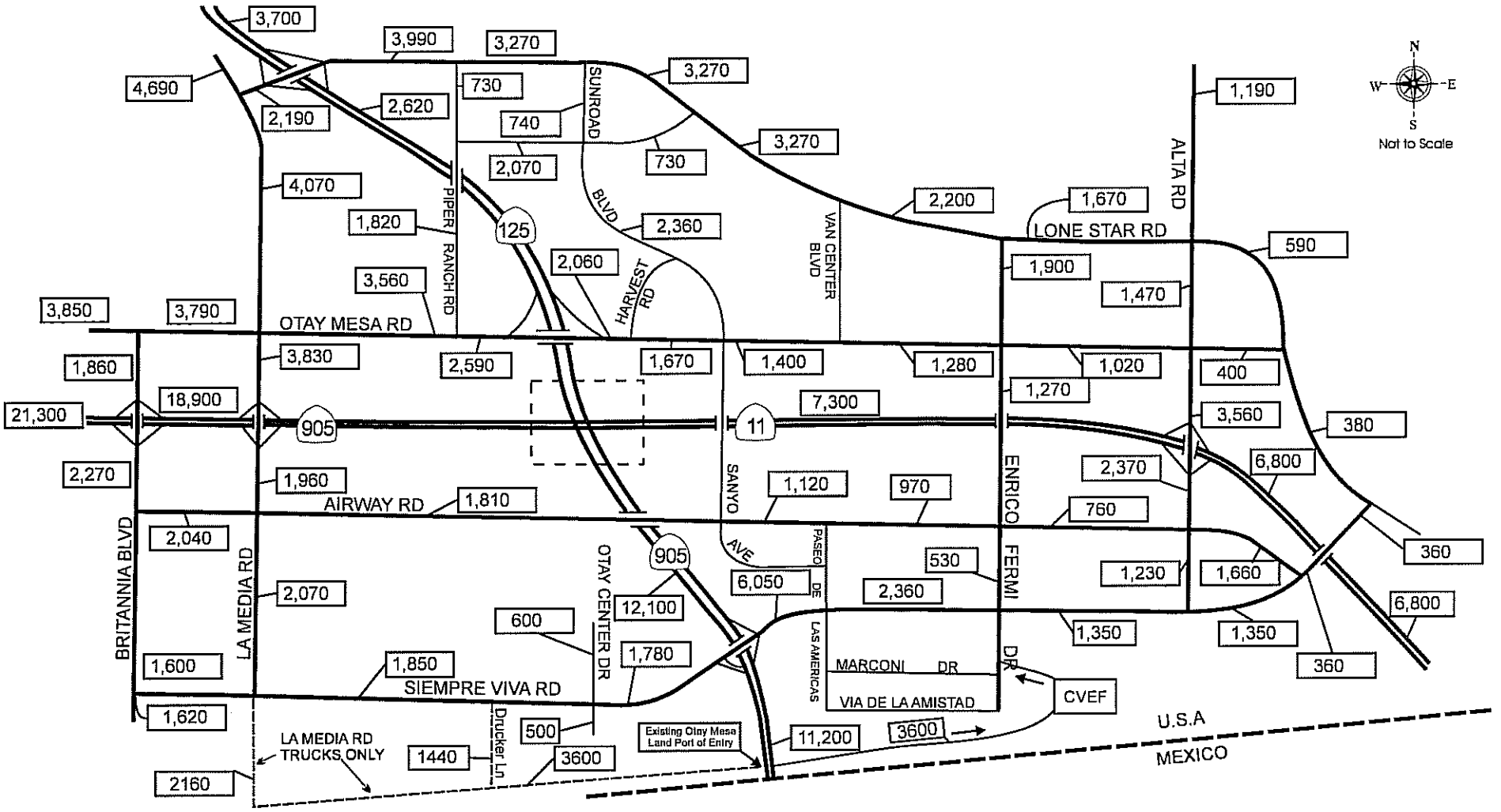
Horizon Year (2035) Daily Truck Trips - One Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-14a



Horizon Year (2035) Daily Truck Trips - One Interchange Alternative

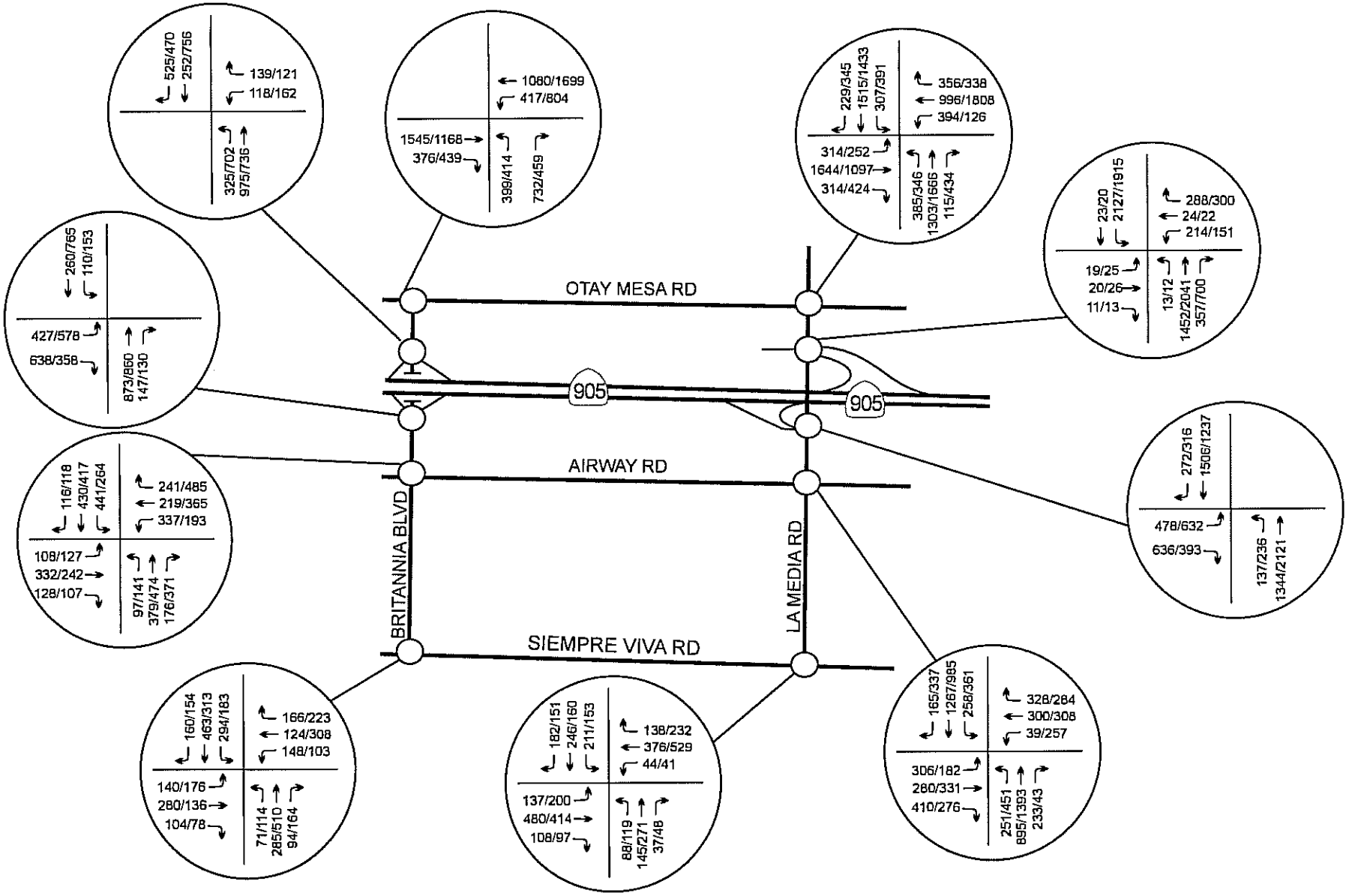
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-14b

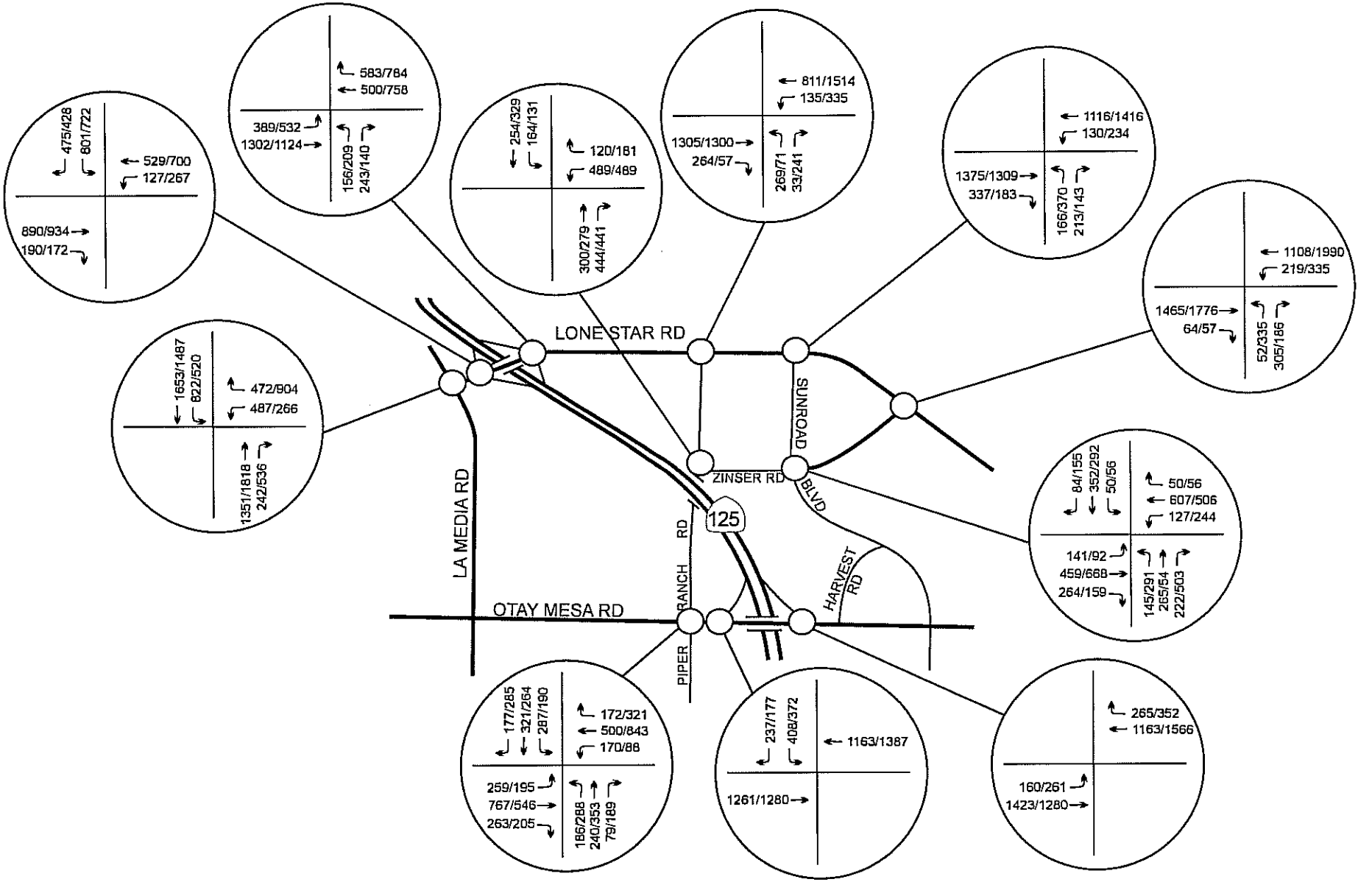


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-15a

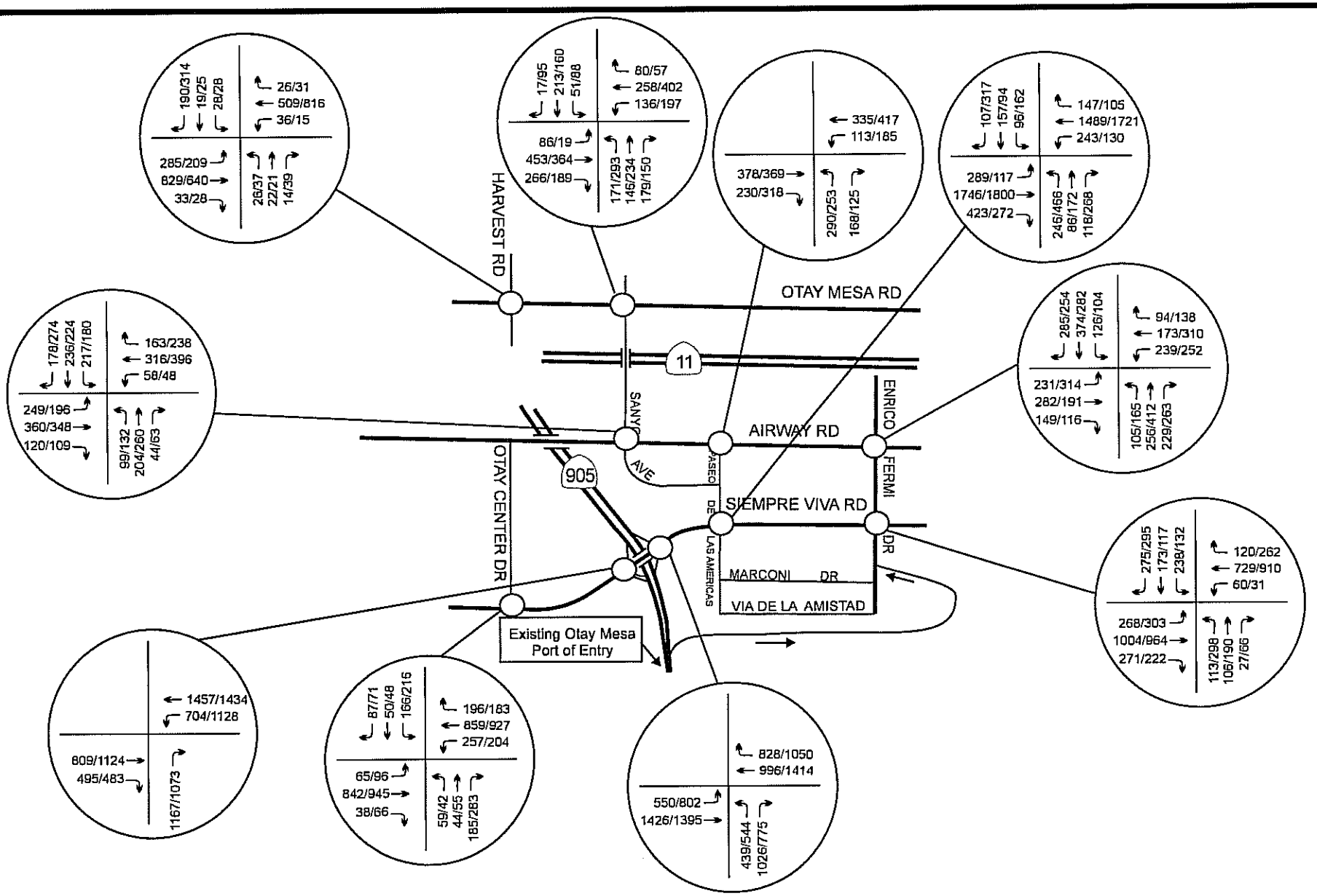


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-15b

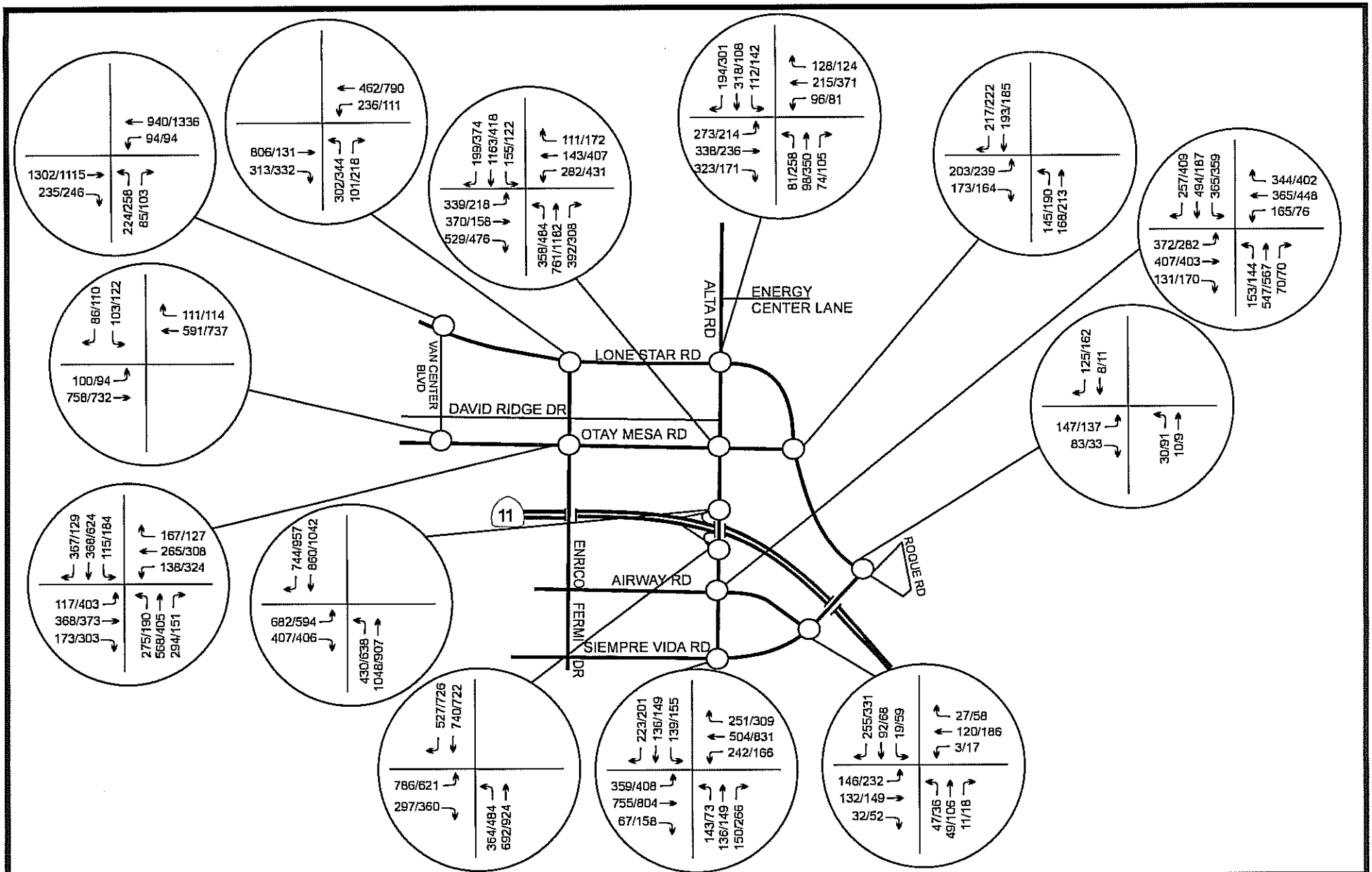


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

Existing or Proposed Freeway/Tollway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-15c

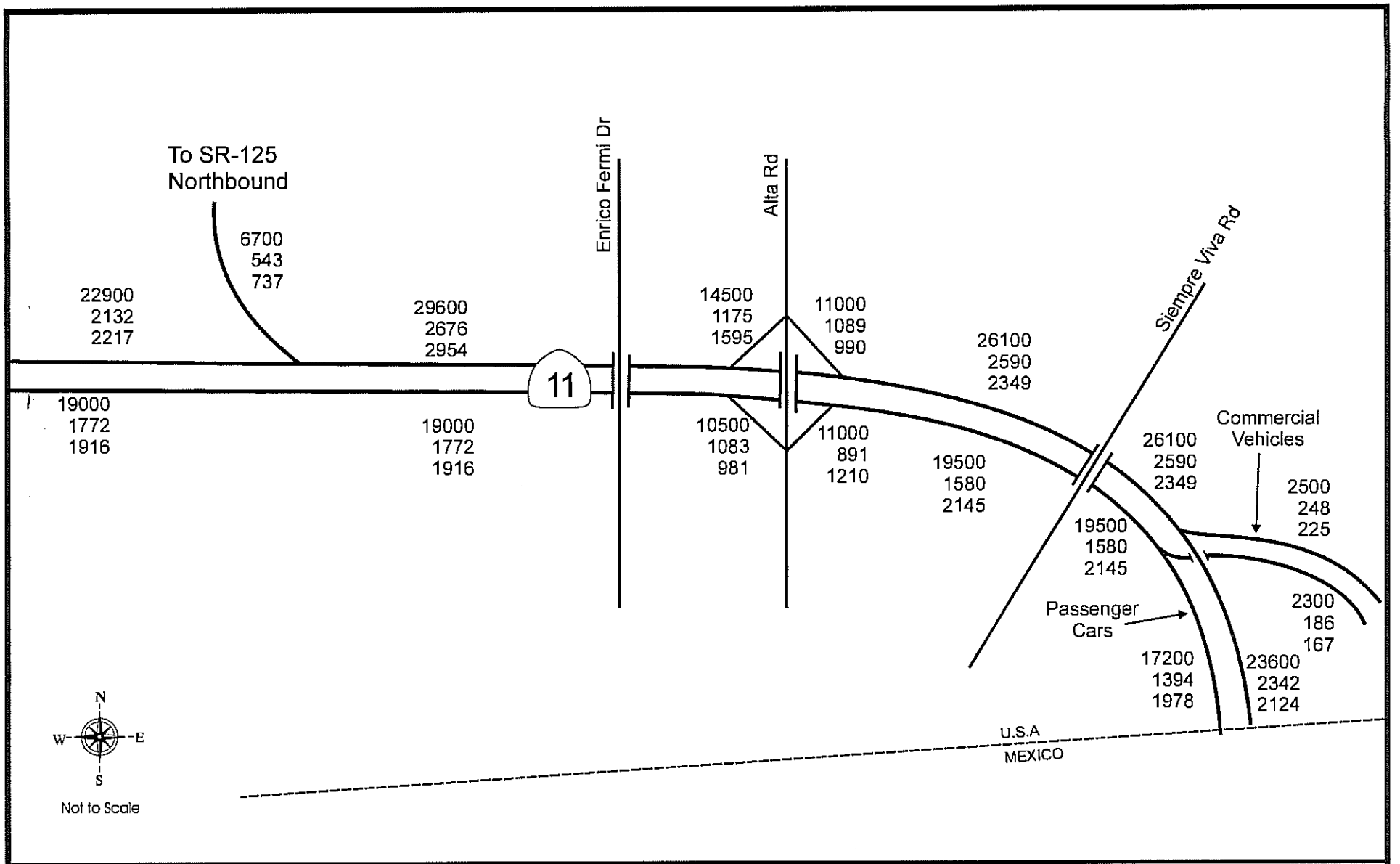


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - One Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-15d

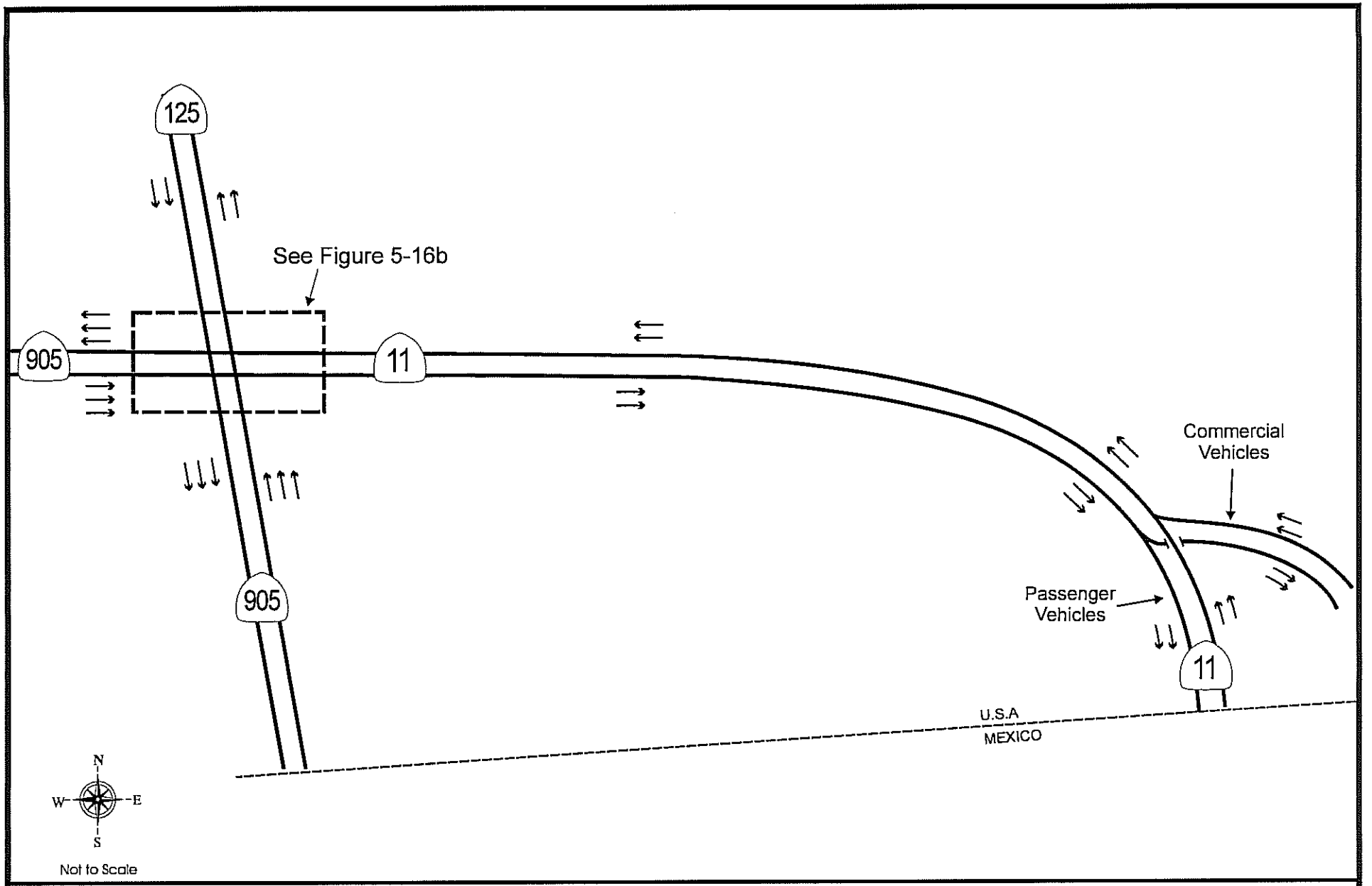


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - One Interchange Alternative

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-15e

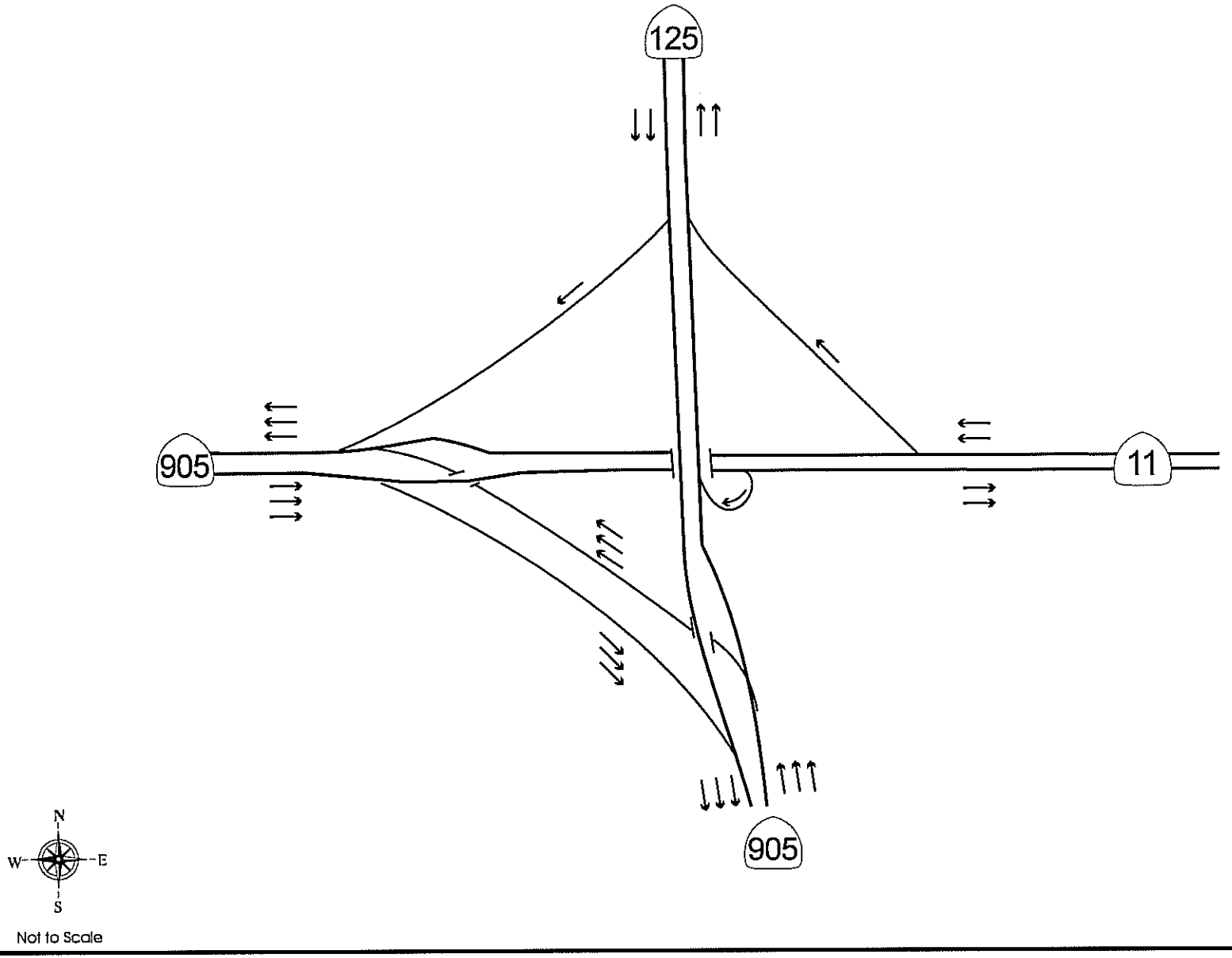


Horizon Year (2035) SR-11 Lane Geometry No Interchange Alternative

Legend

⟵ Number of Lanes

Figure 5-16a

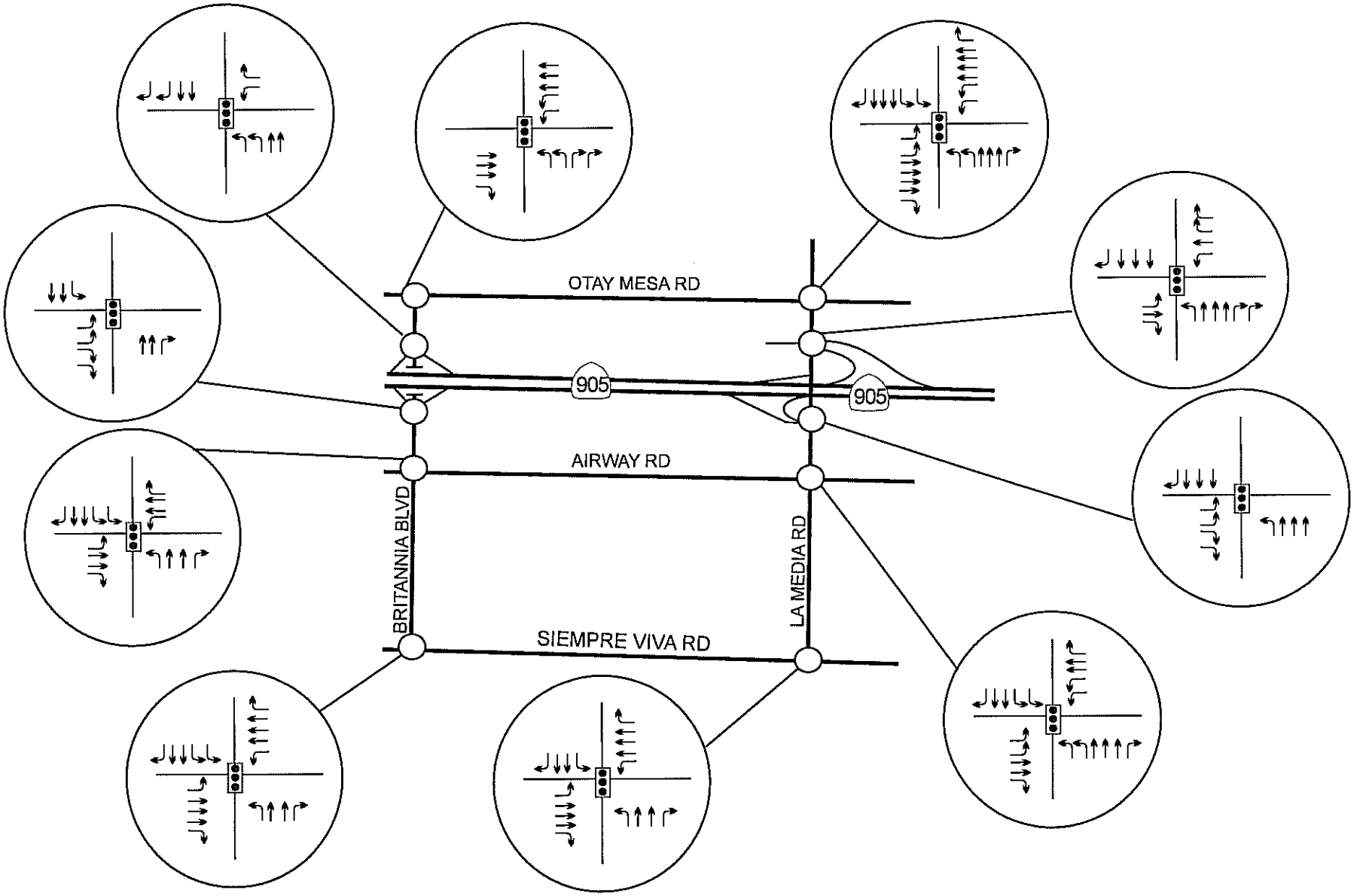


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
No Interchange Alternative

Legend

← Number of Lanes

Figure 5-16b

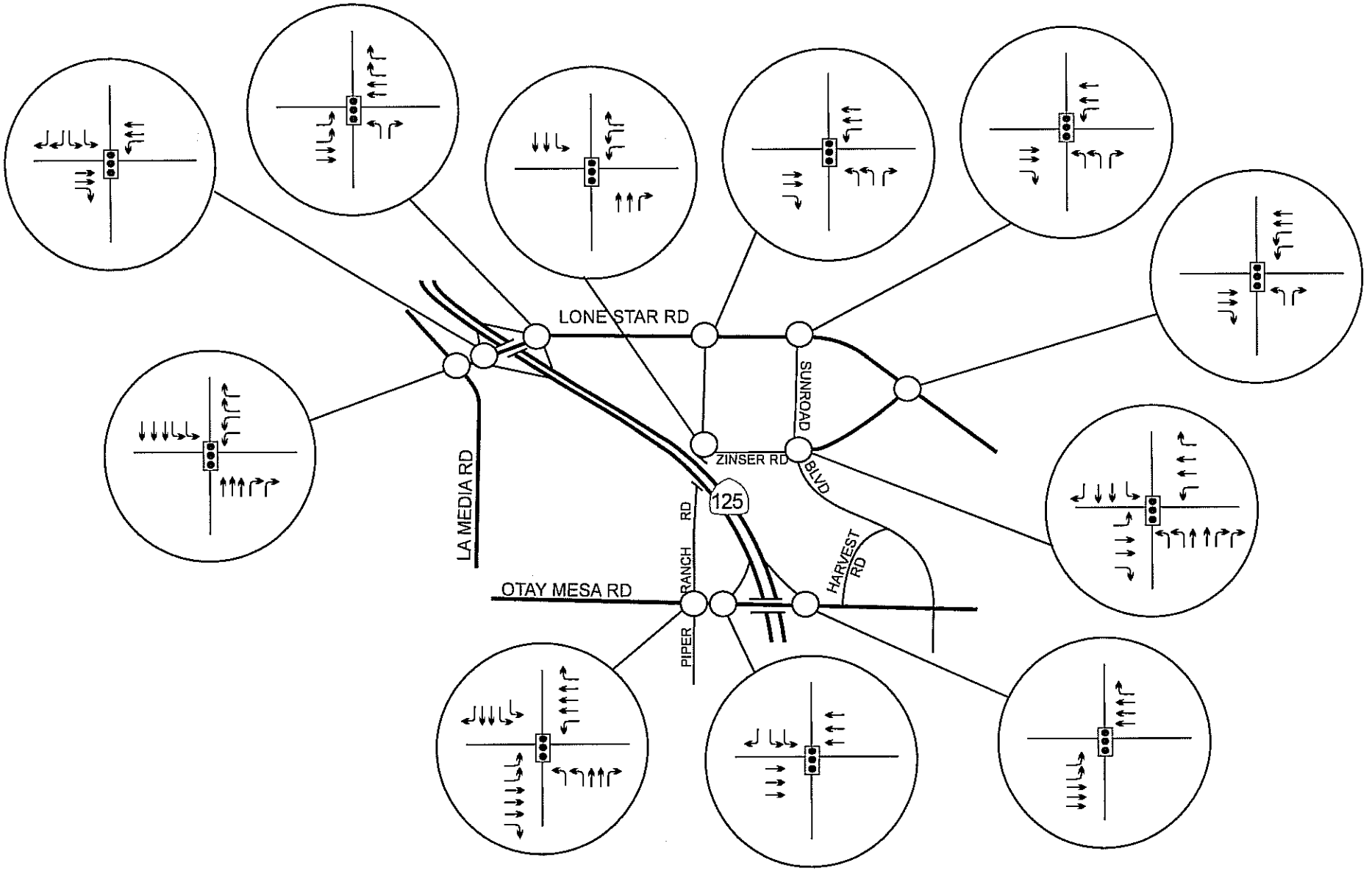


Horizon Year (2035) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-17a

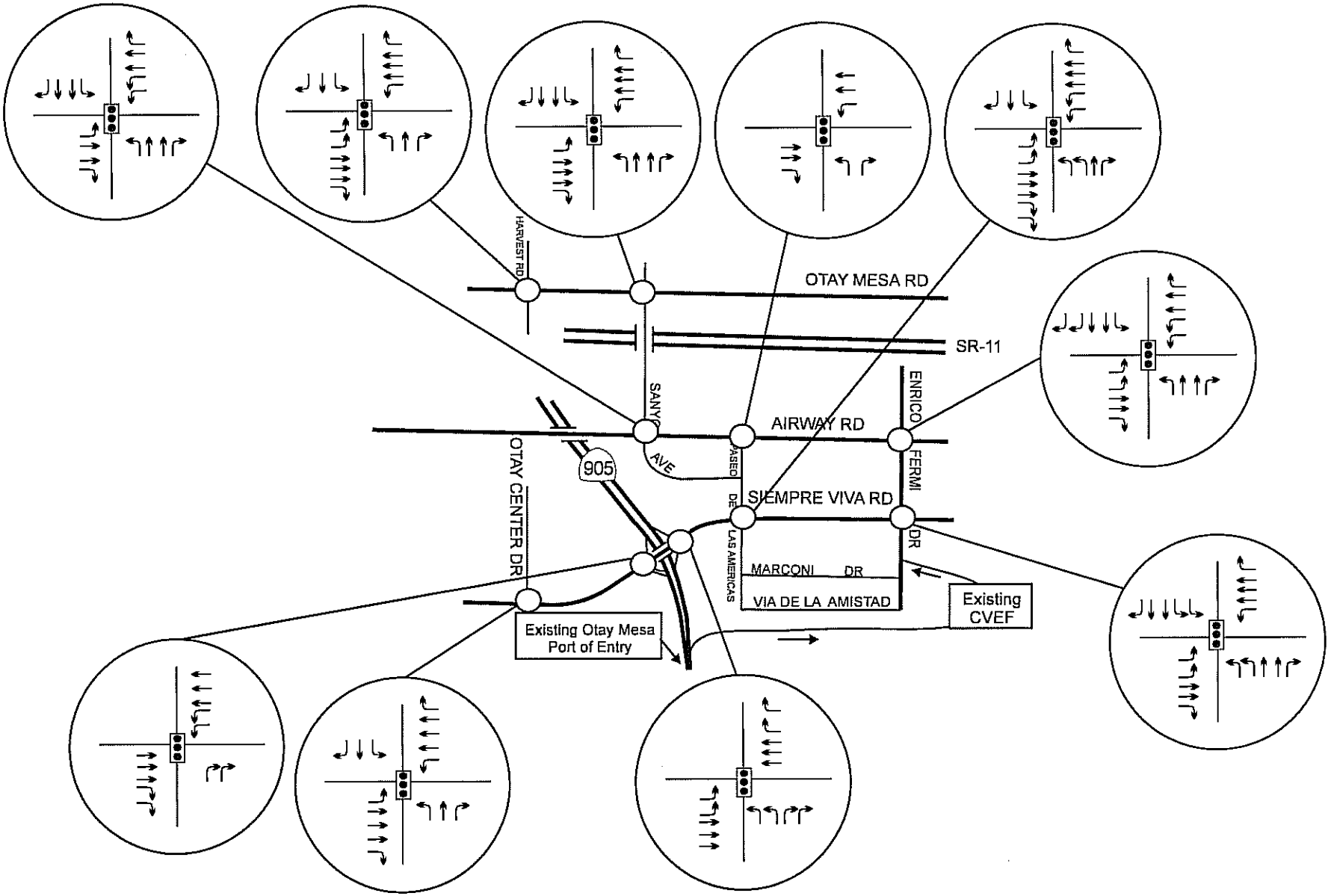


Horizon Year (2035) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-17b

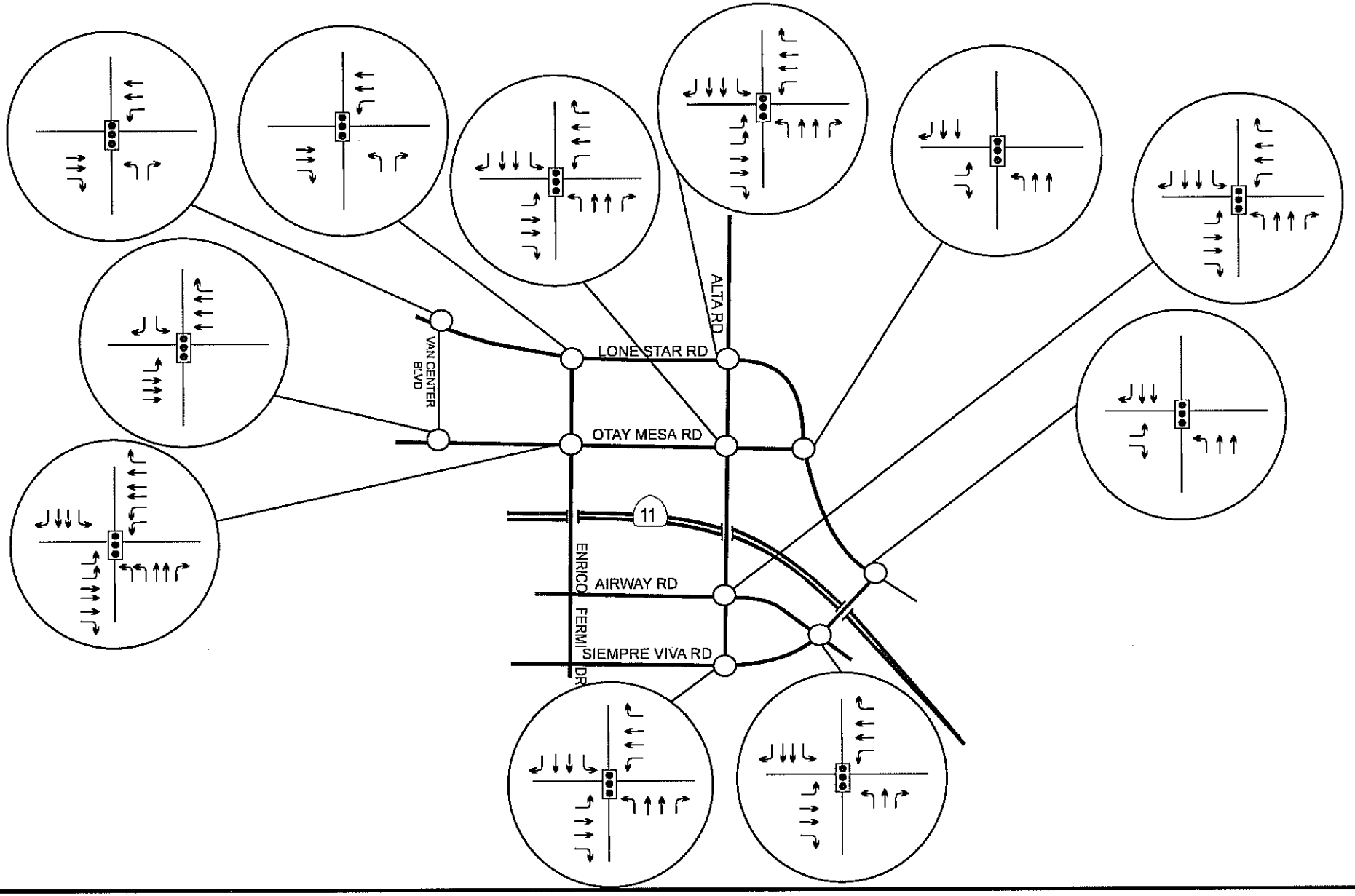


Horizon Year (2035) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-17c

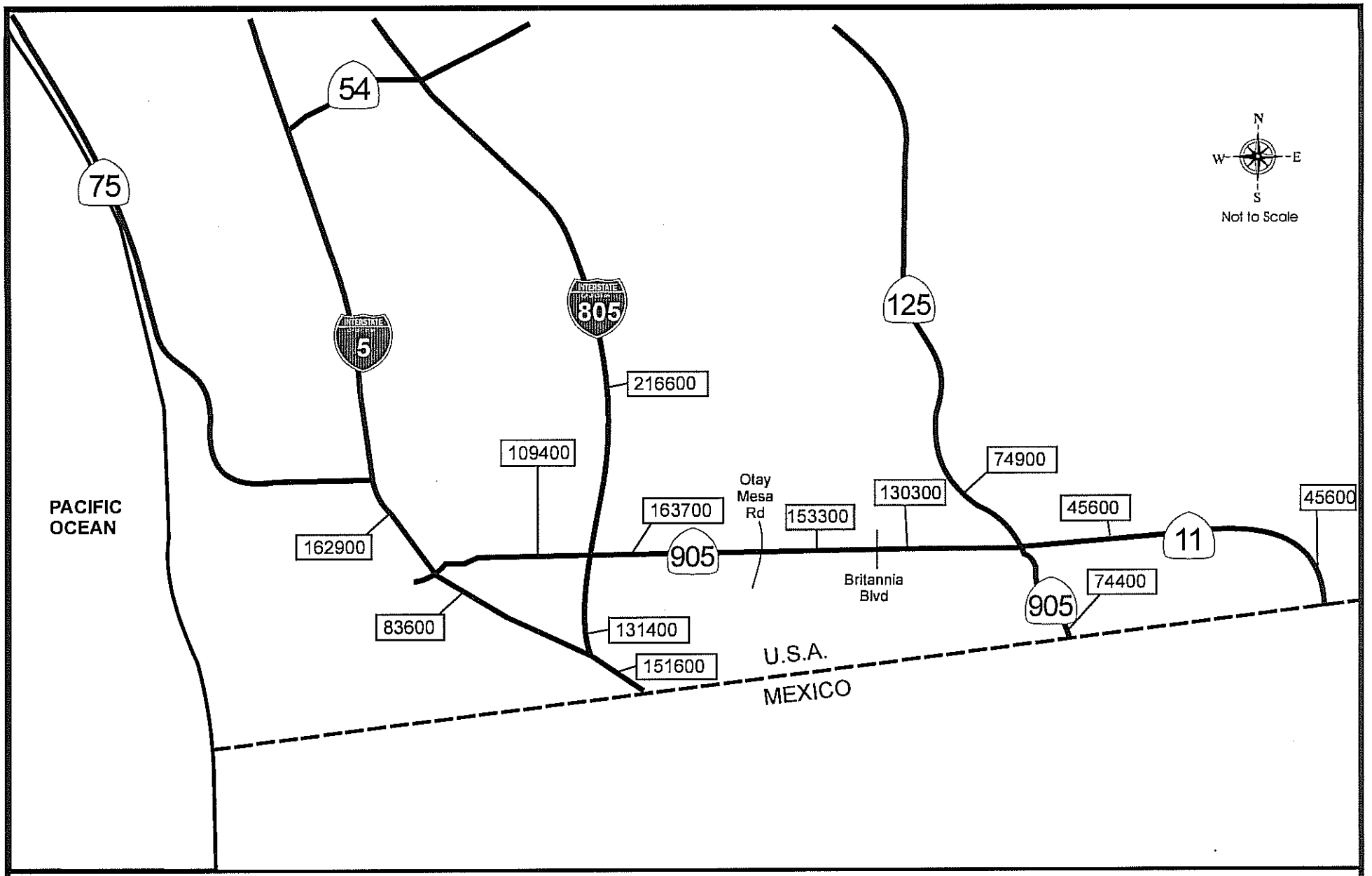


Horizon Year (2035) Intersection Lane Geometry - No Interchange Alternative

Legend

Direction of Travel Stop Sign Signal

Figure 5-17d



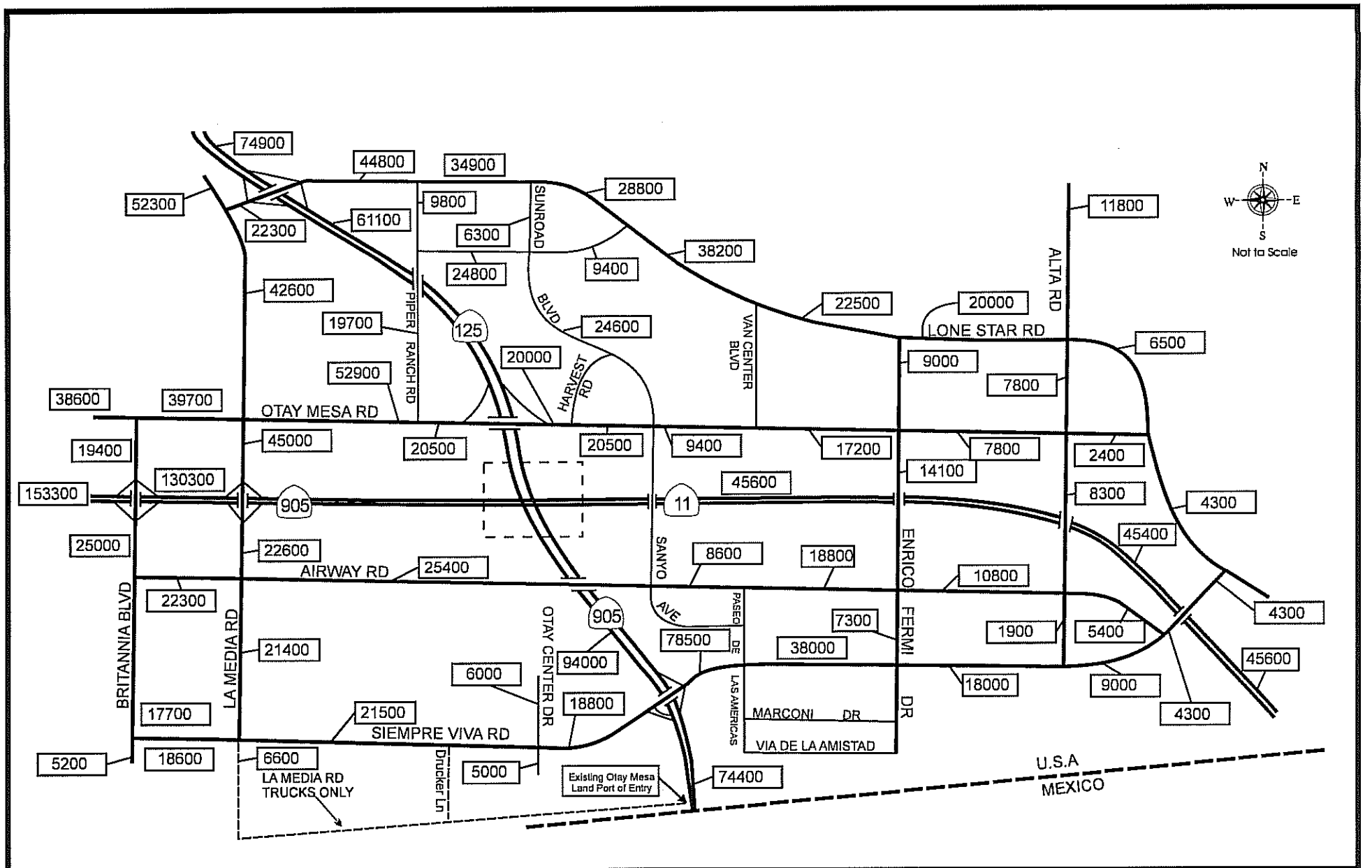
Horizon Year (2035) Average Daily Traffic - No Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-18a



Horizon Year (2035) Average Daily Traffic - No Interchange Alternative

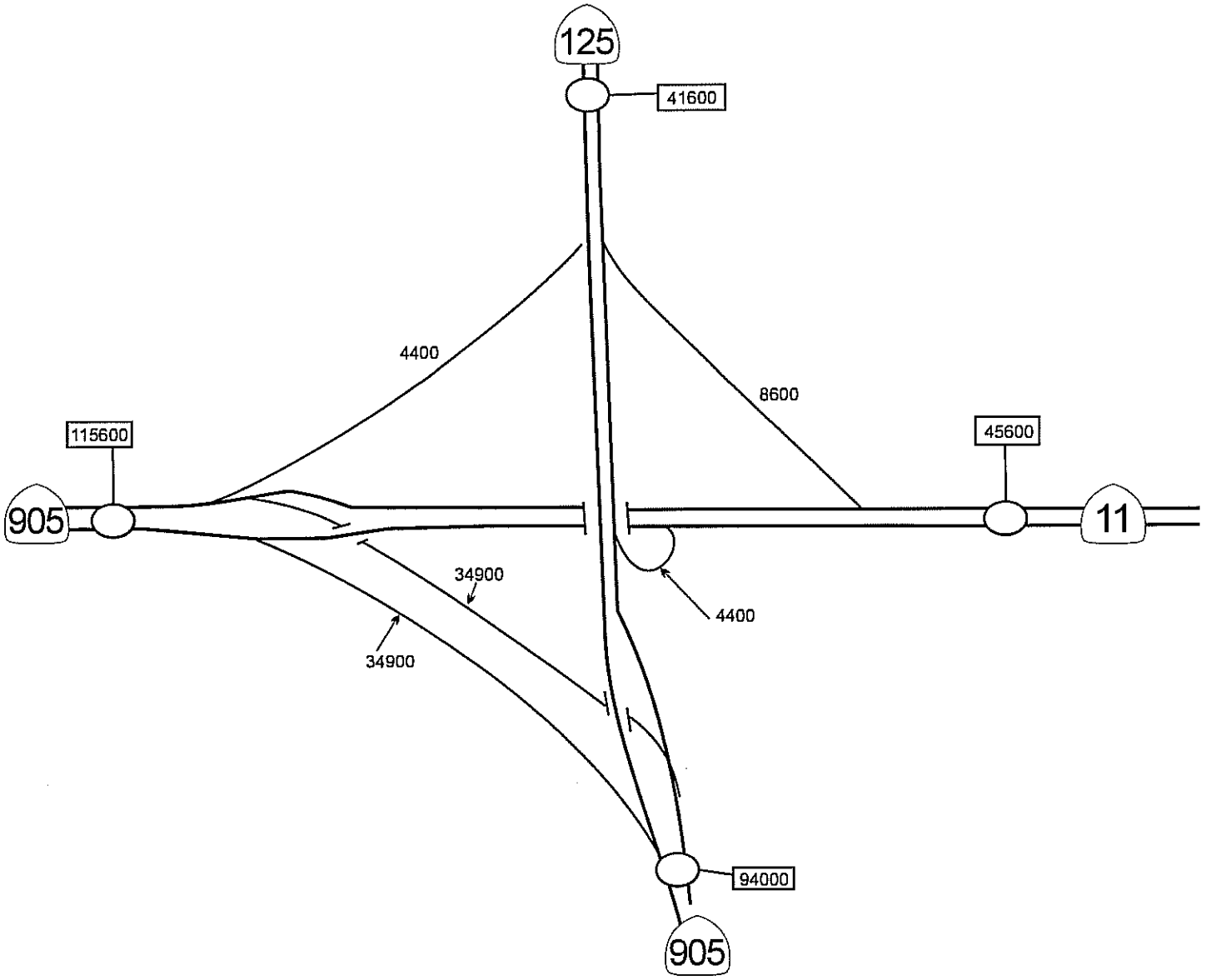
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-18b

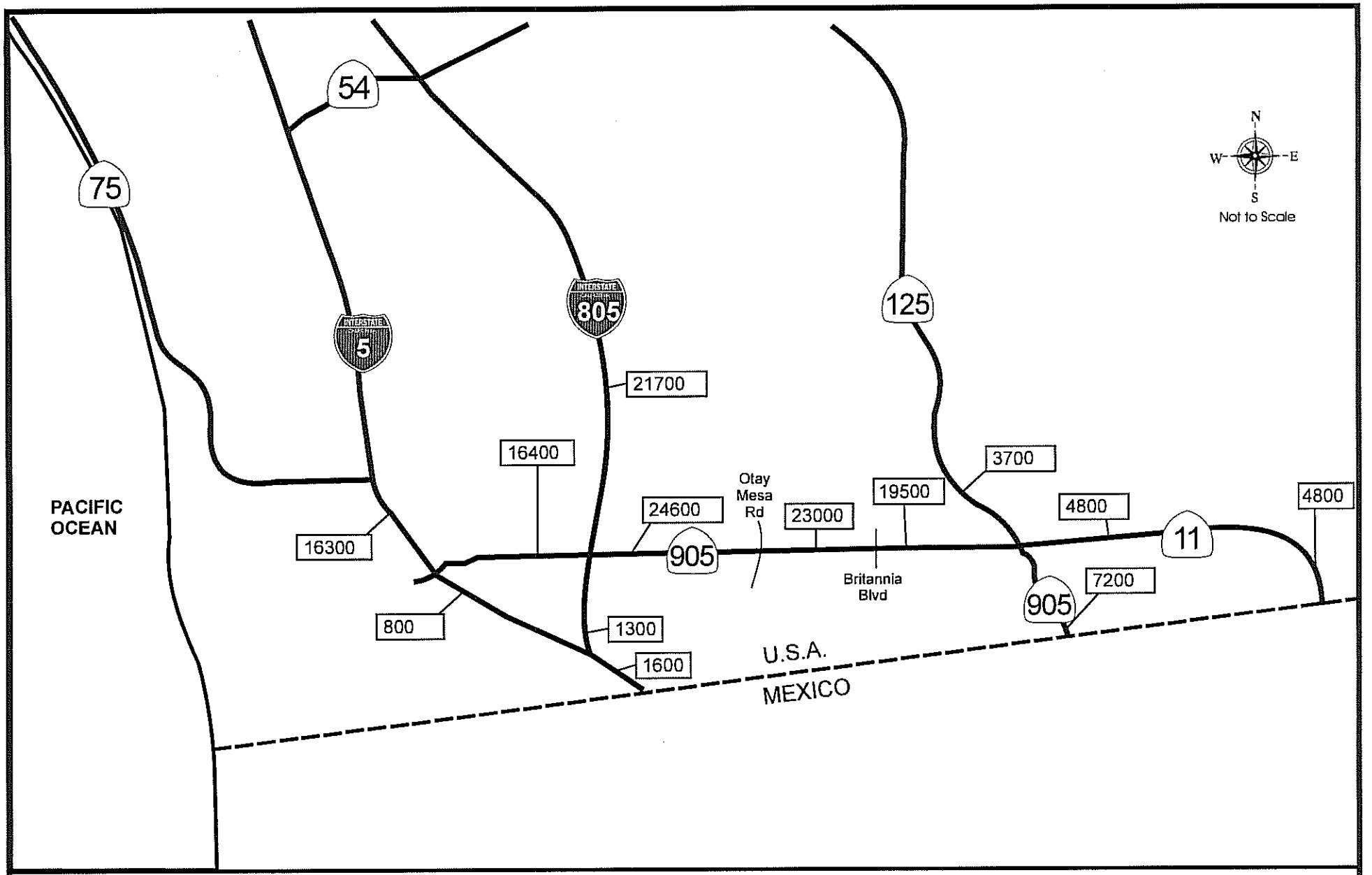


Horizon Year (2035) Average Daily Traffic - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-18c



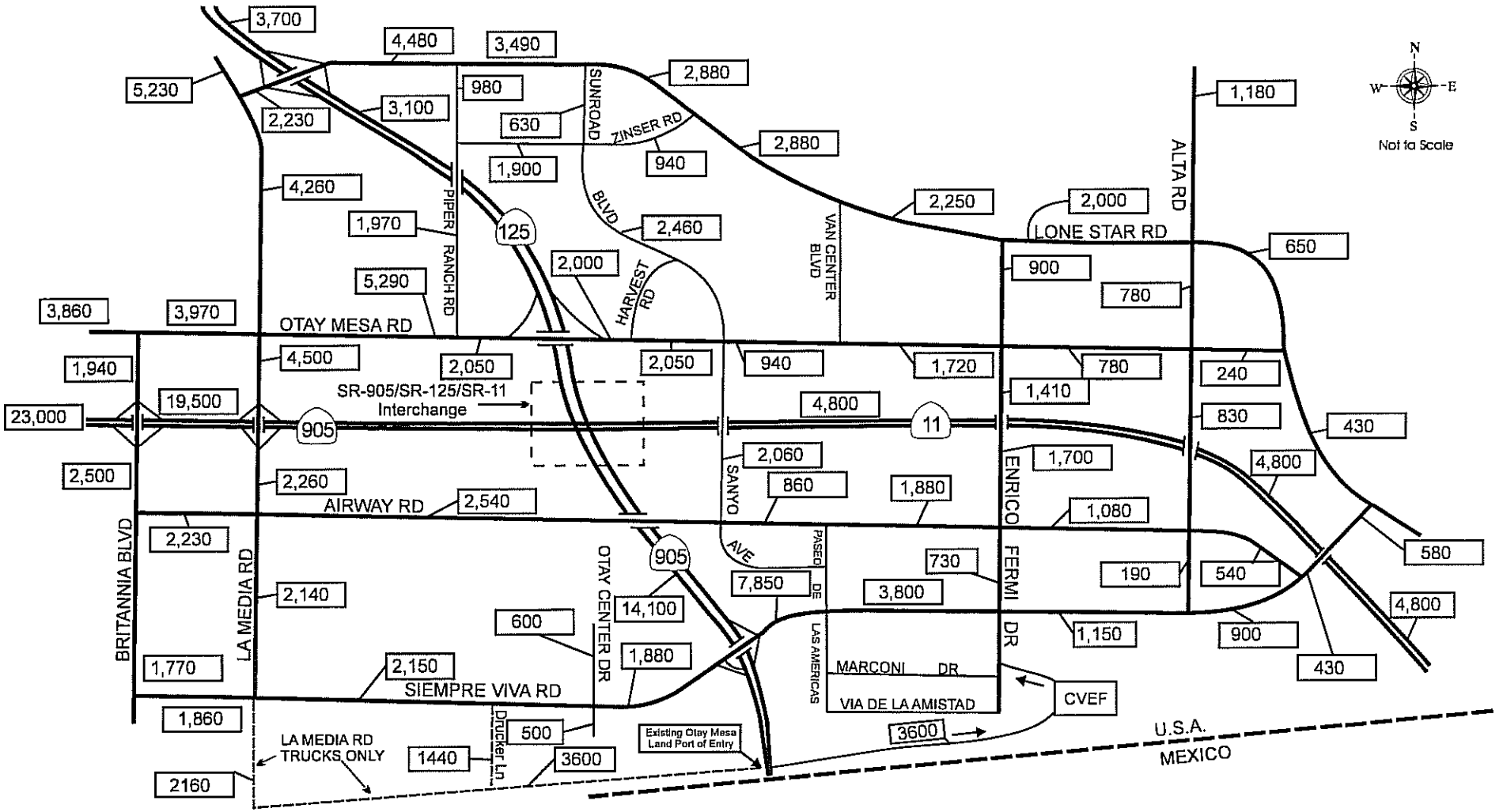
Horizon Year (2035) Daily Truck Trips - No Interchange Alternative

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-19a



Horizon Year (2035) Daily Truck Trips - No Interchange Alternative

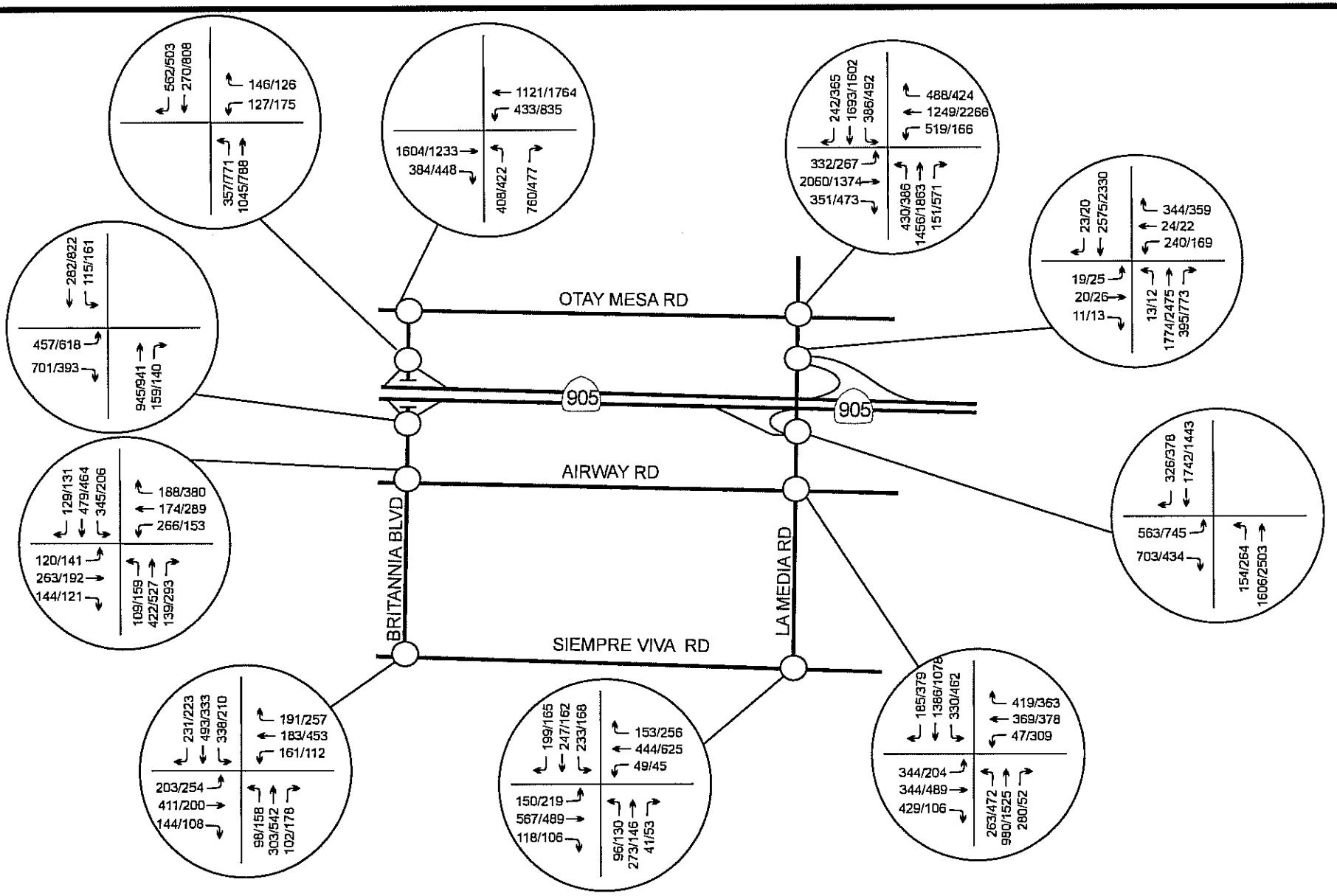
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-19b

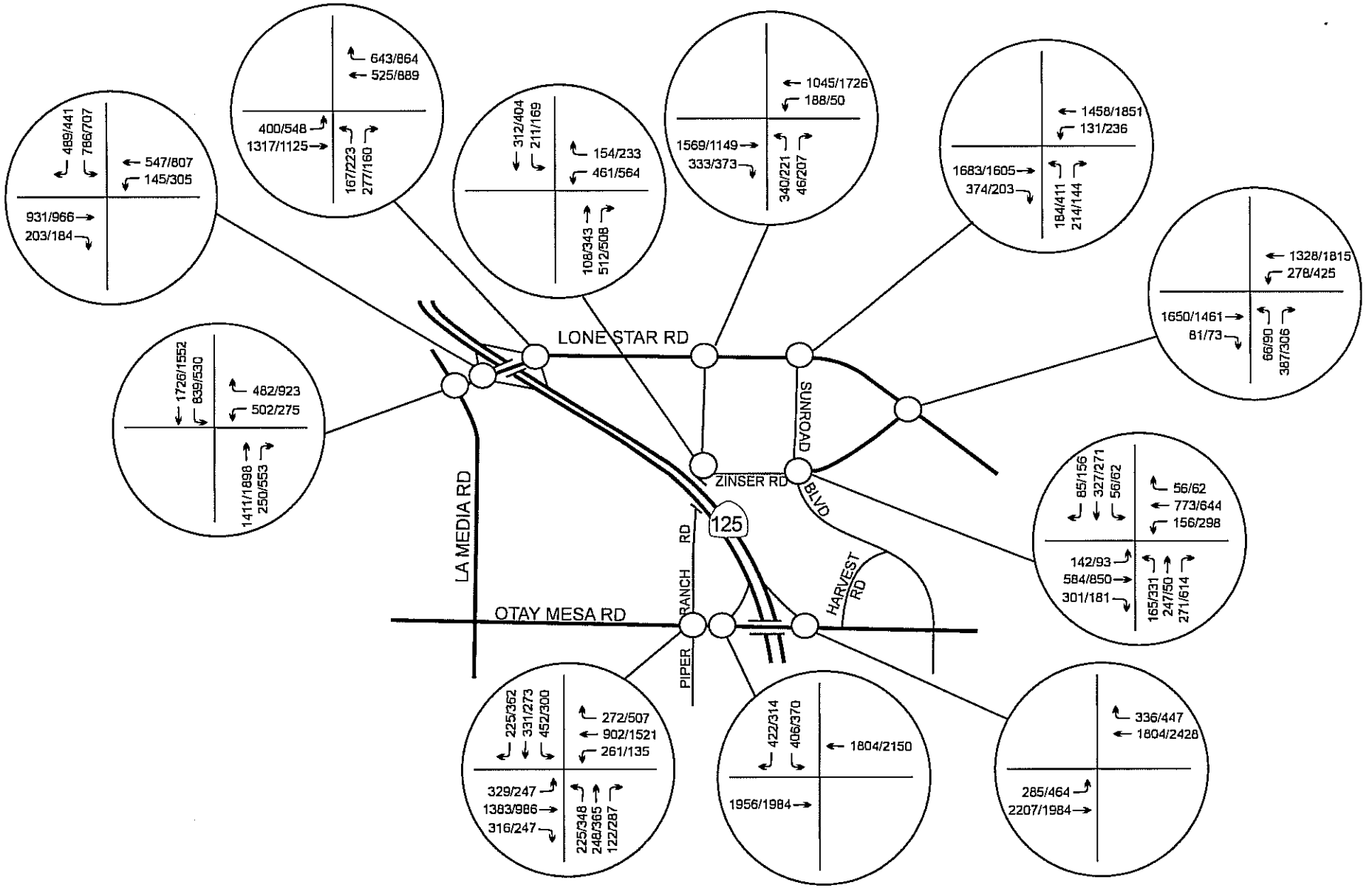


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-20a

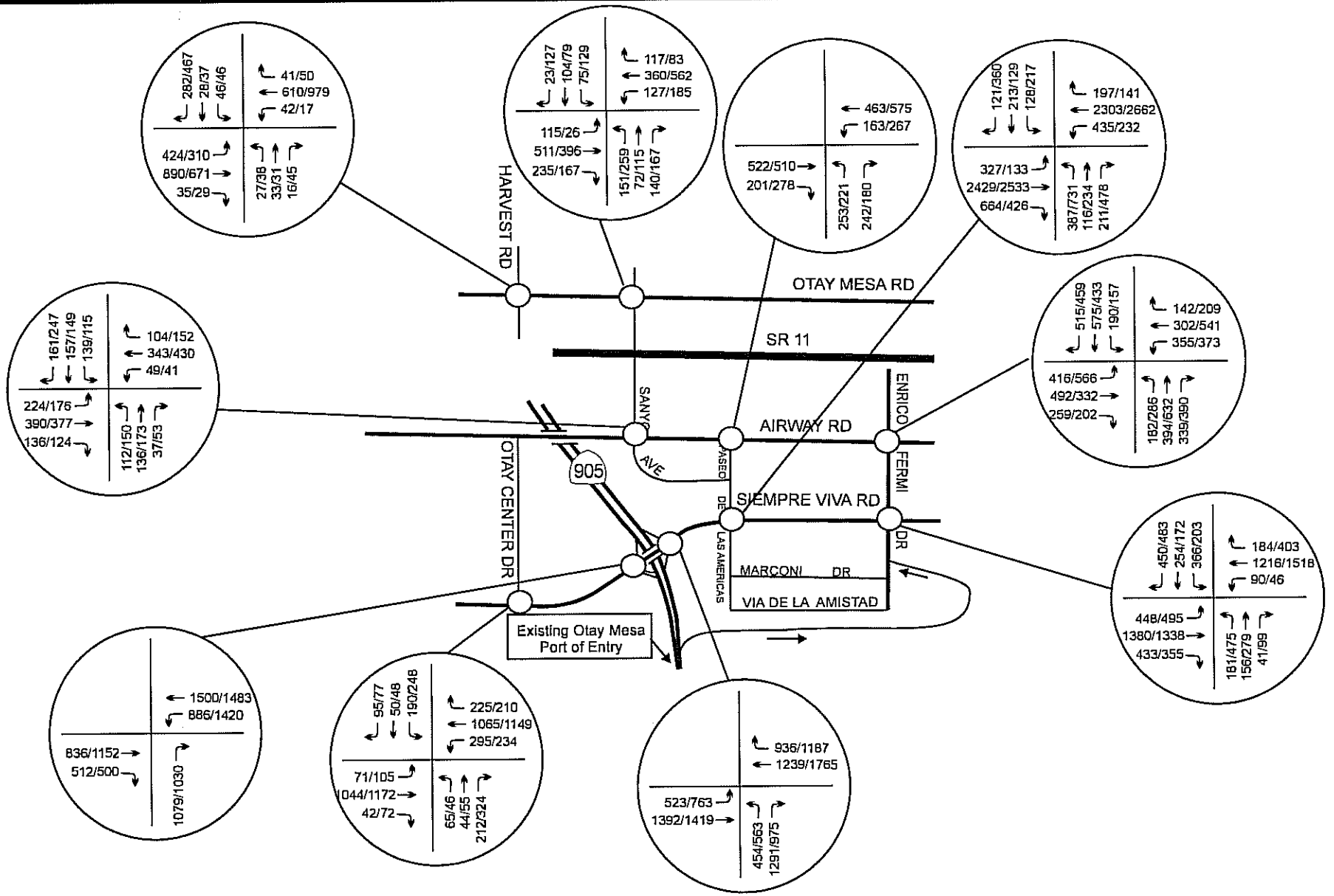


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-20b

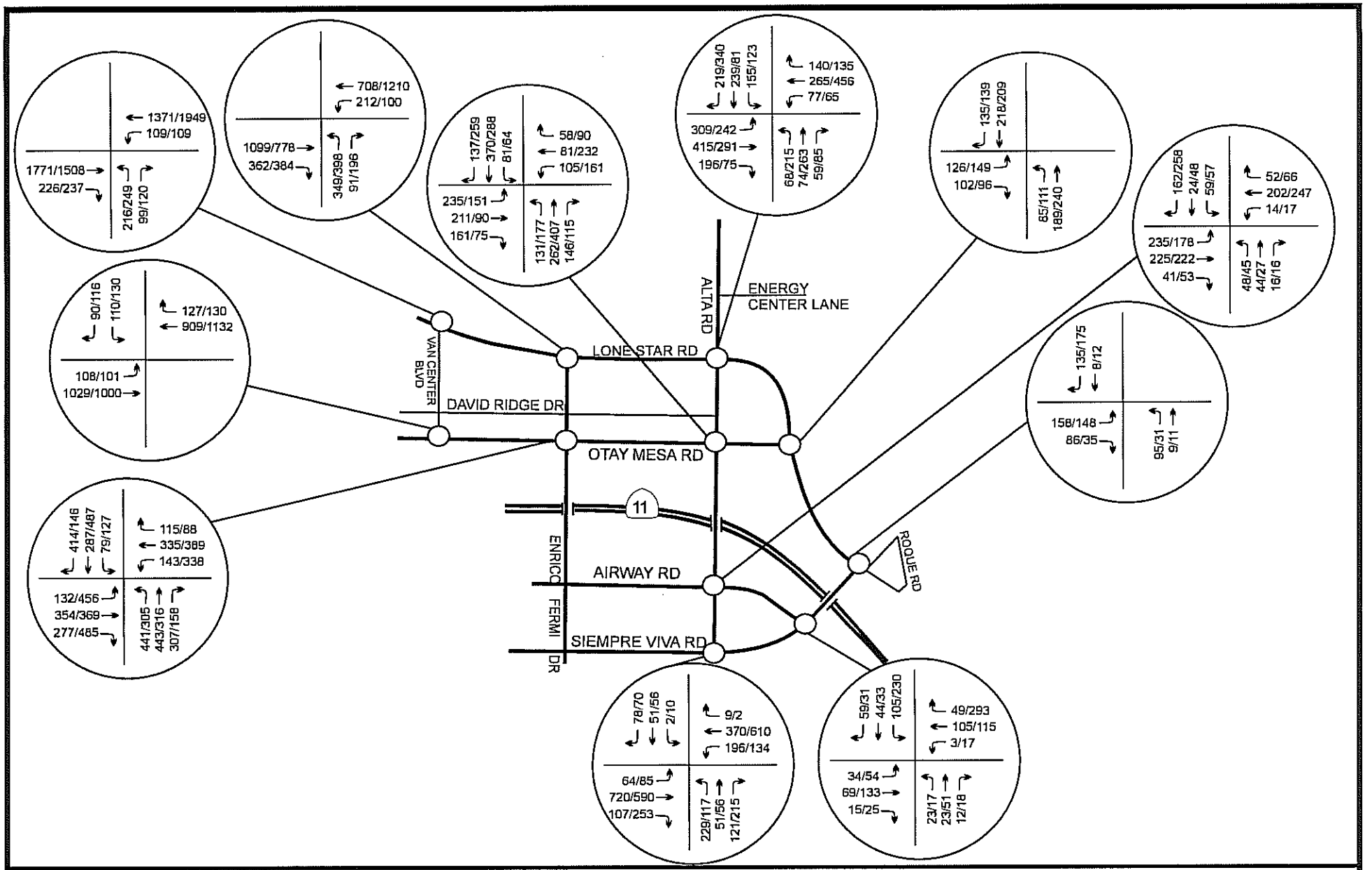


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-20c

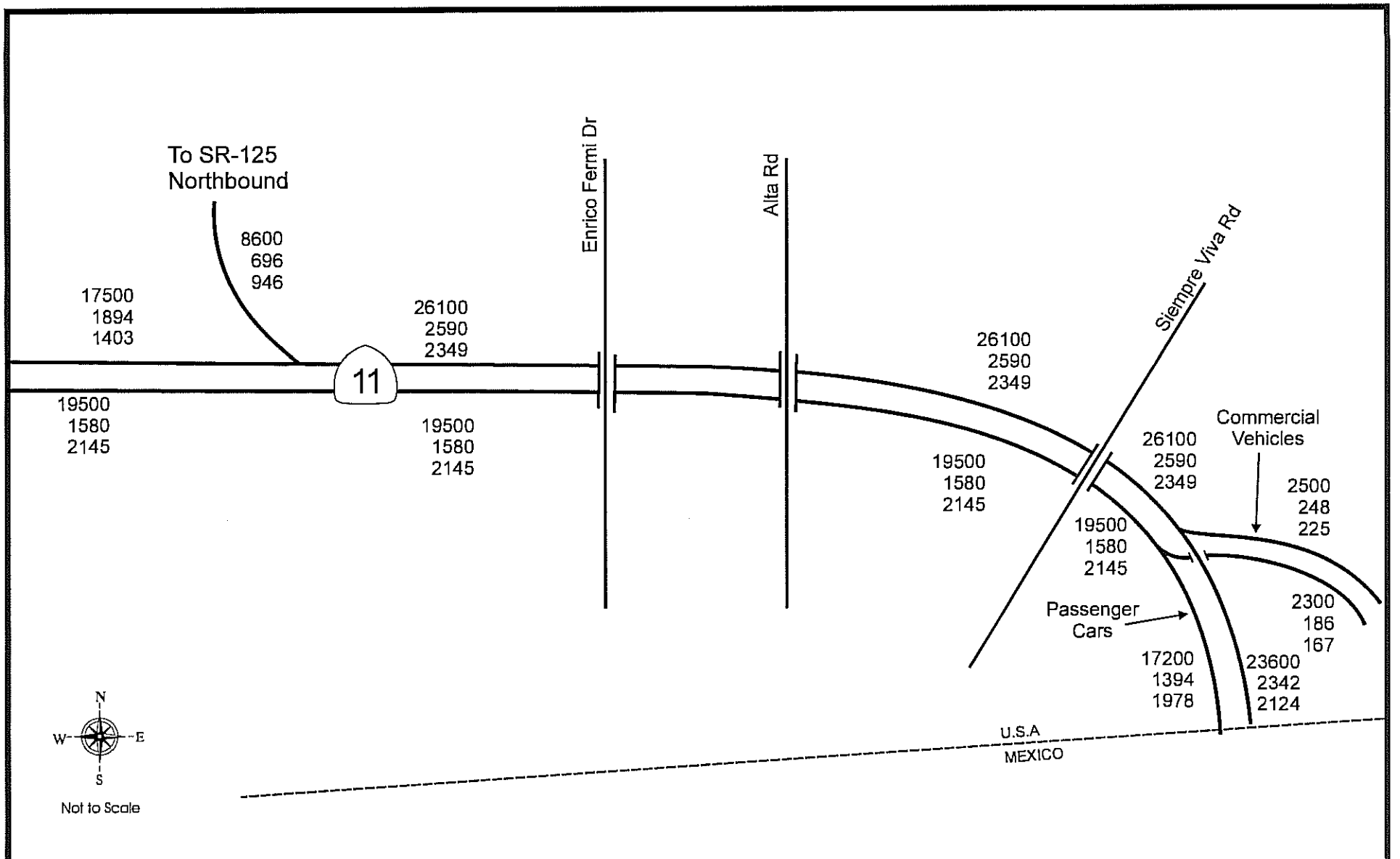


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - No Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-20d

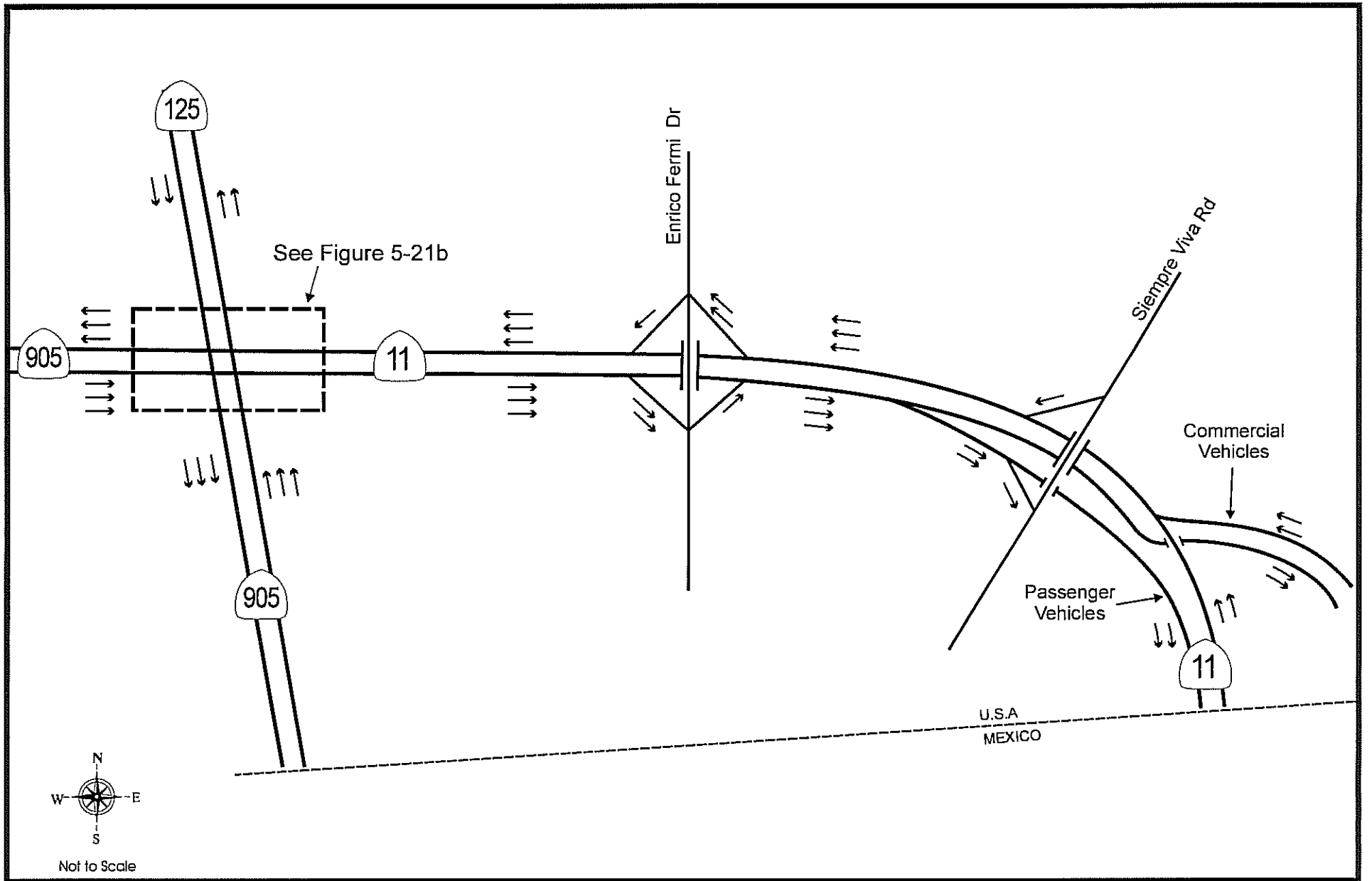


Horizon Year (2035) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - No Interchange Alternative

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-20e

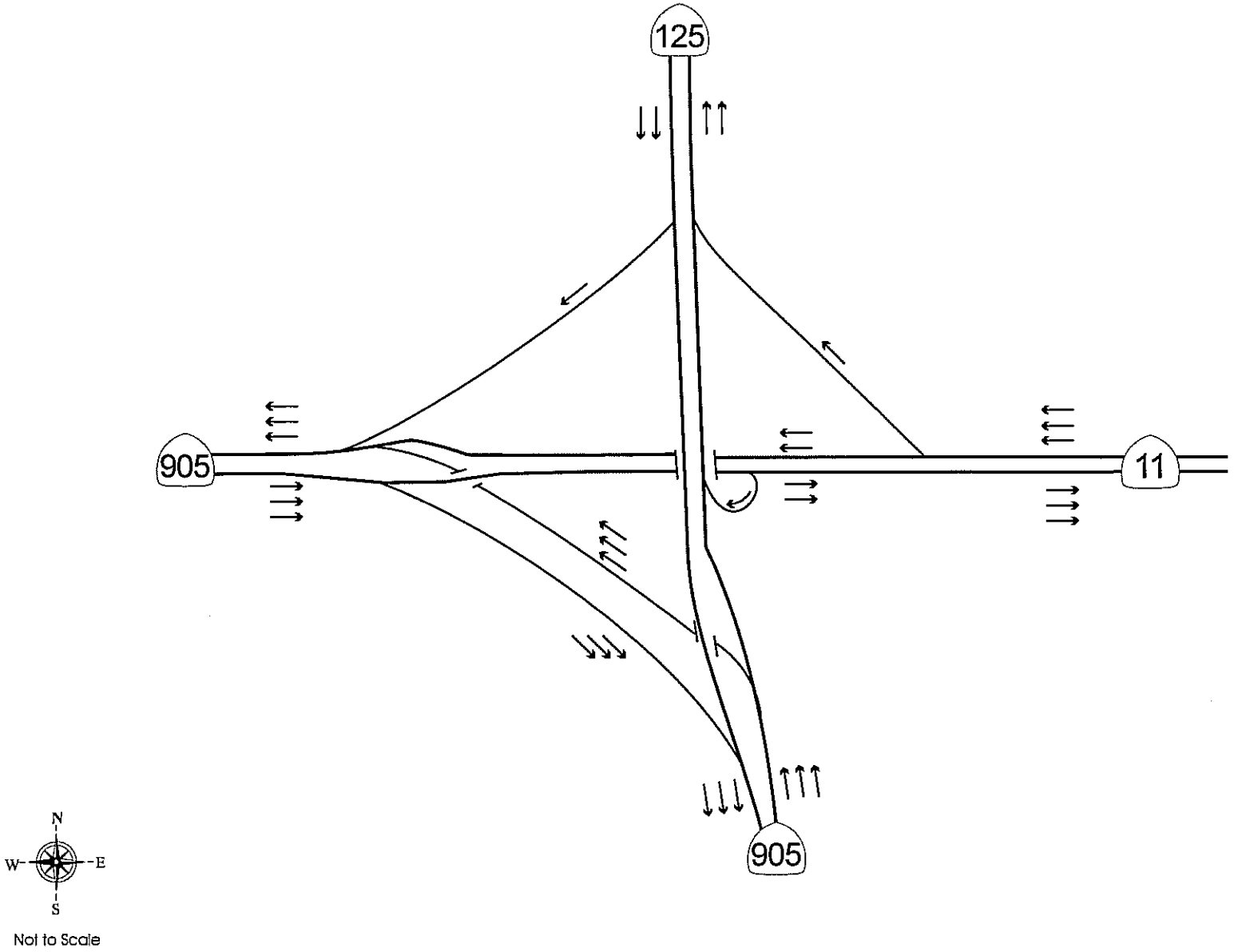


Horizon Year (2035) SR-11 Lane Geometry No Toll/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 5-21a

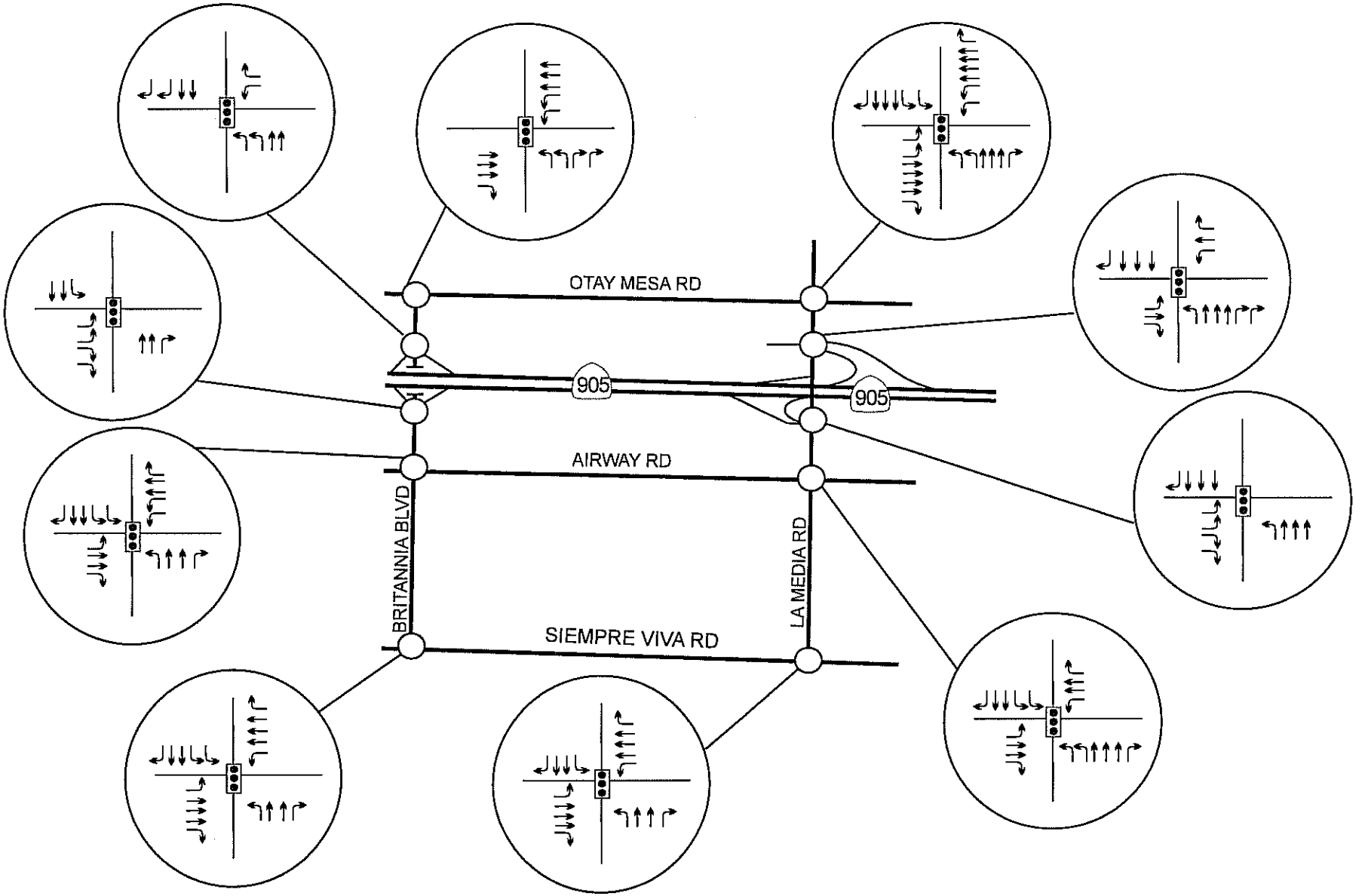


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
No Toll/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 5-21b

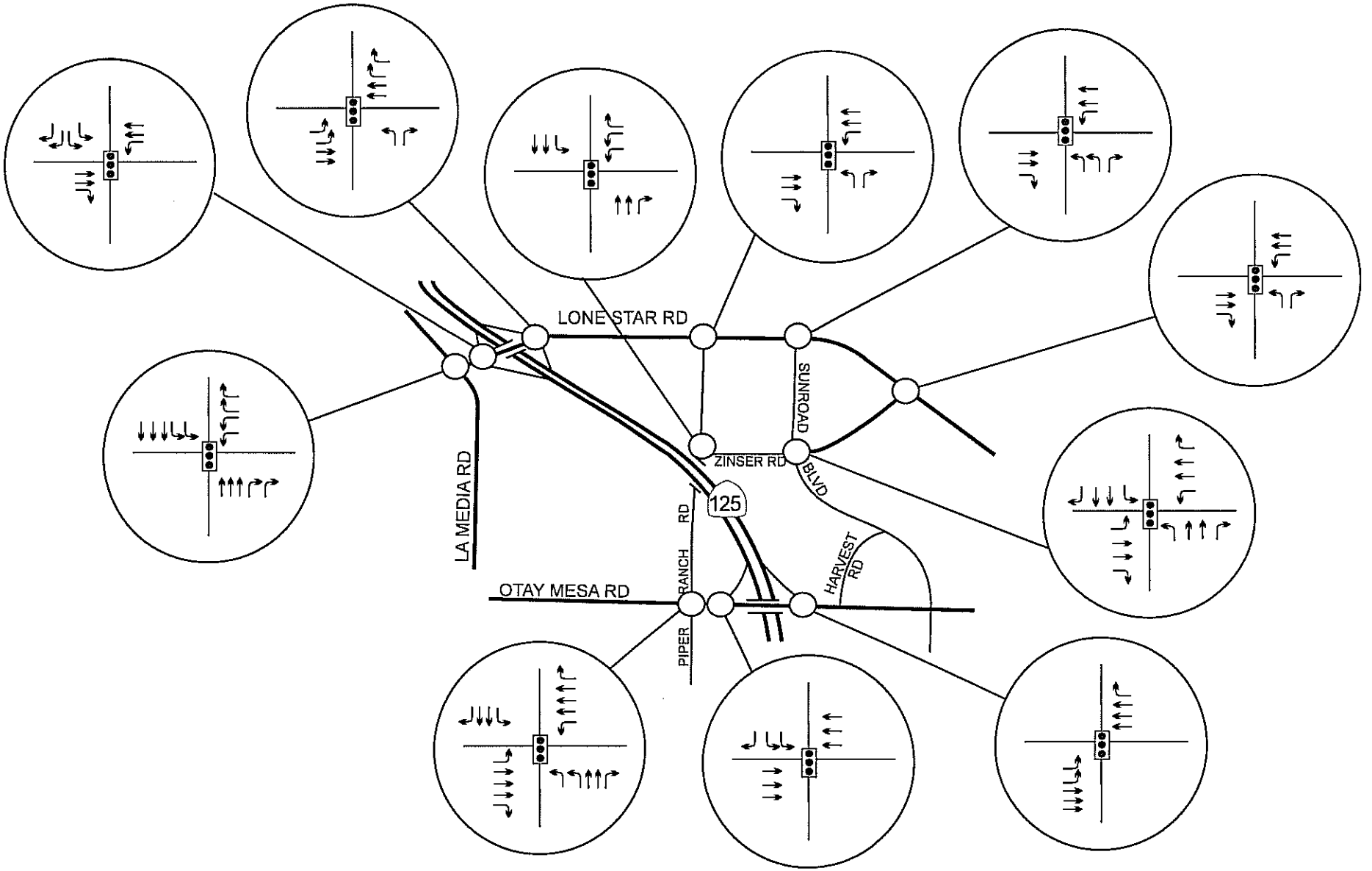


Horizon Year (2035) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-22a

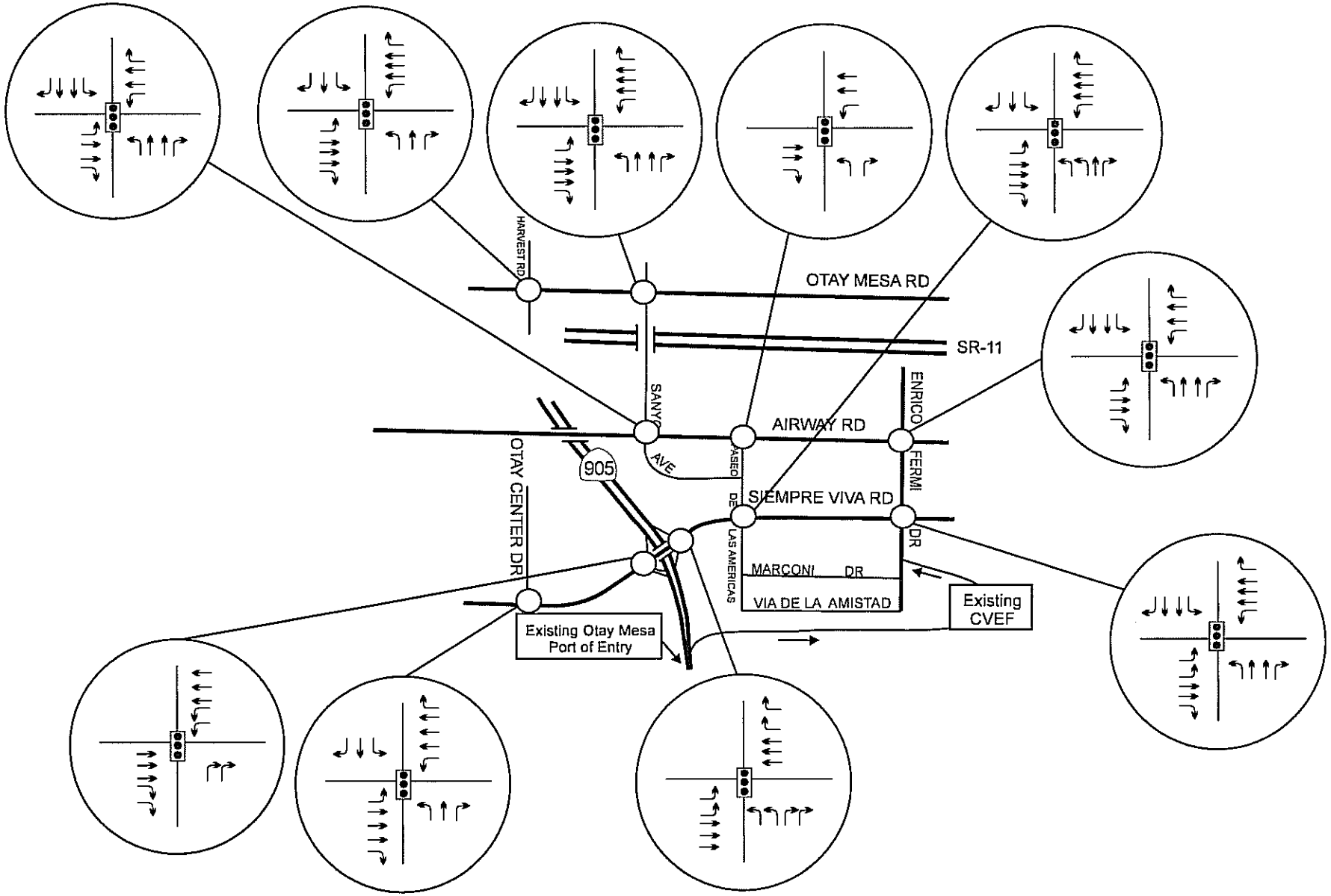


Horizon Year (2035) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel | Stop Sign | Signal

Figure 5-22b

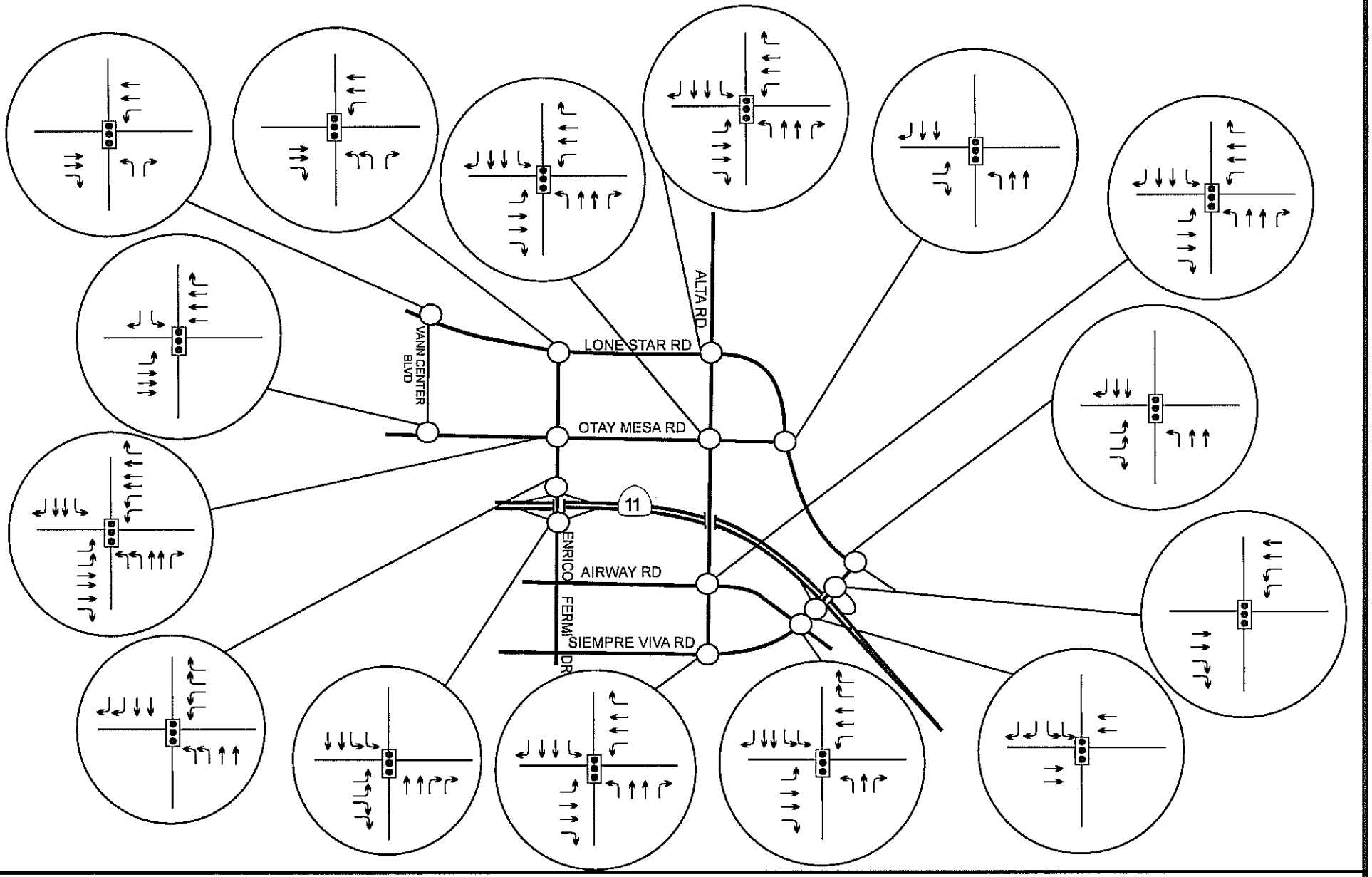


Horizon Year (2035) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-22c

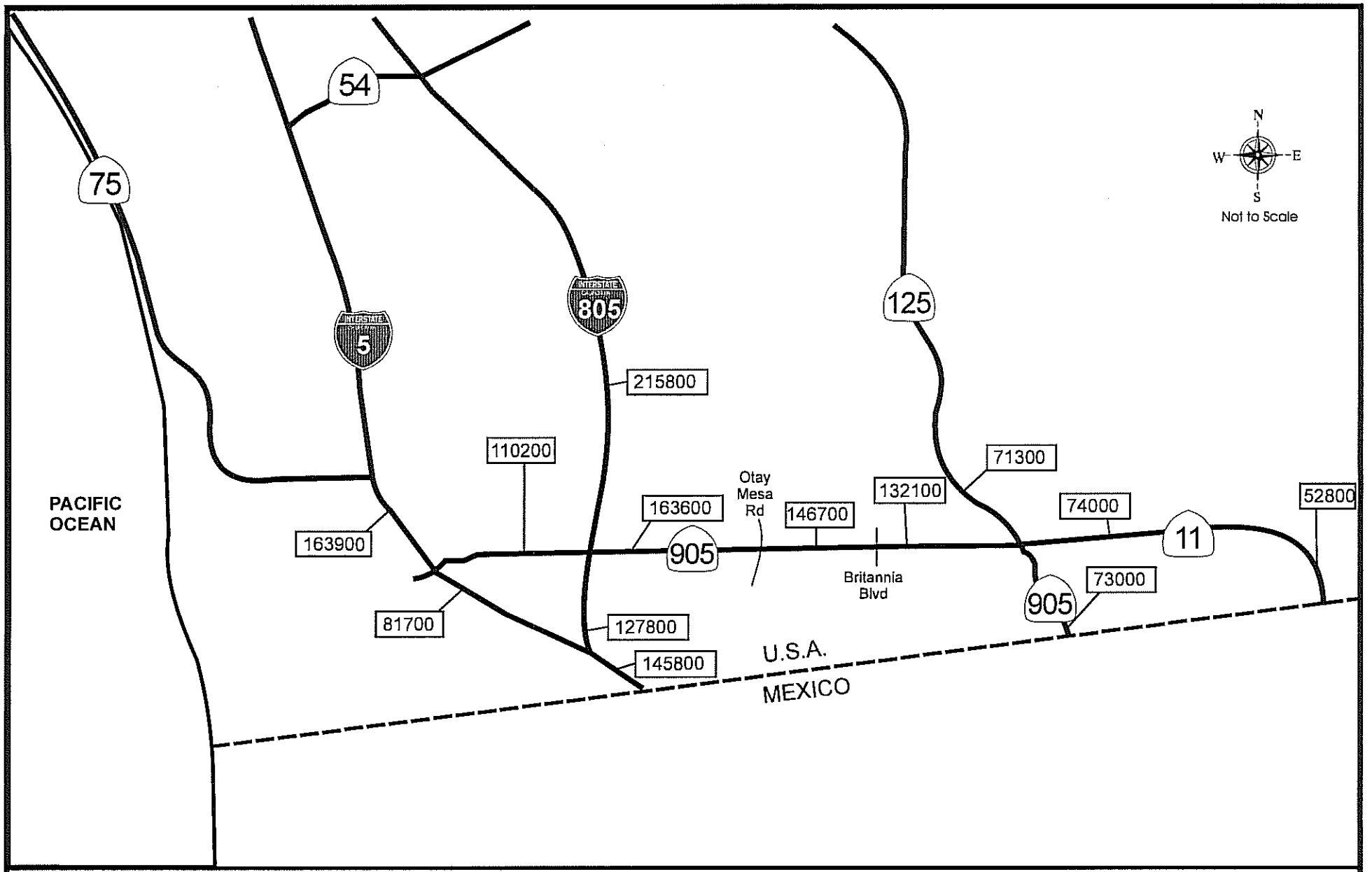


Horizon Year (2035) Intersection Lane Geometry - No Toll/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-22d



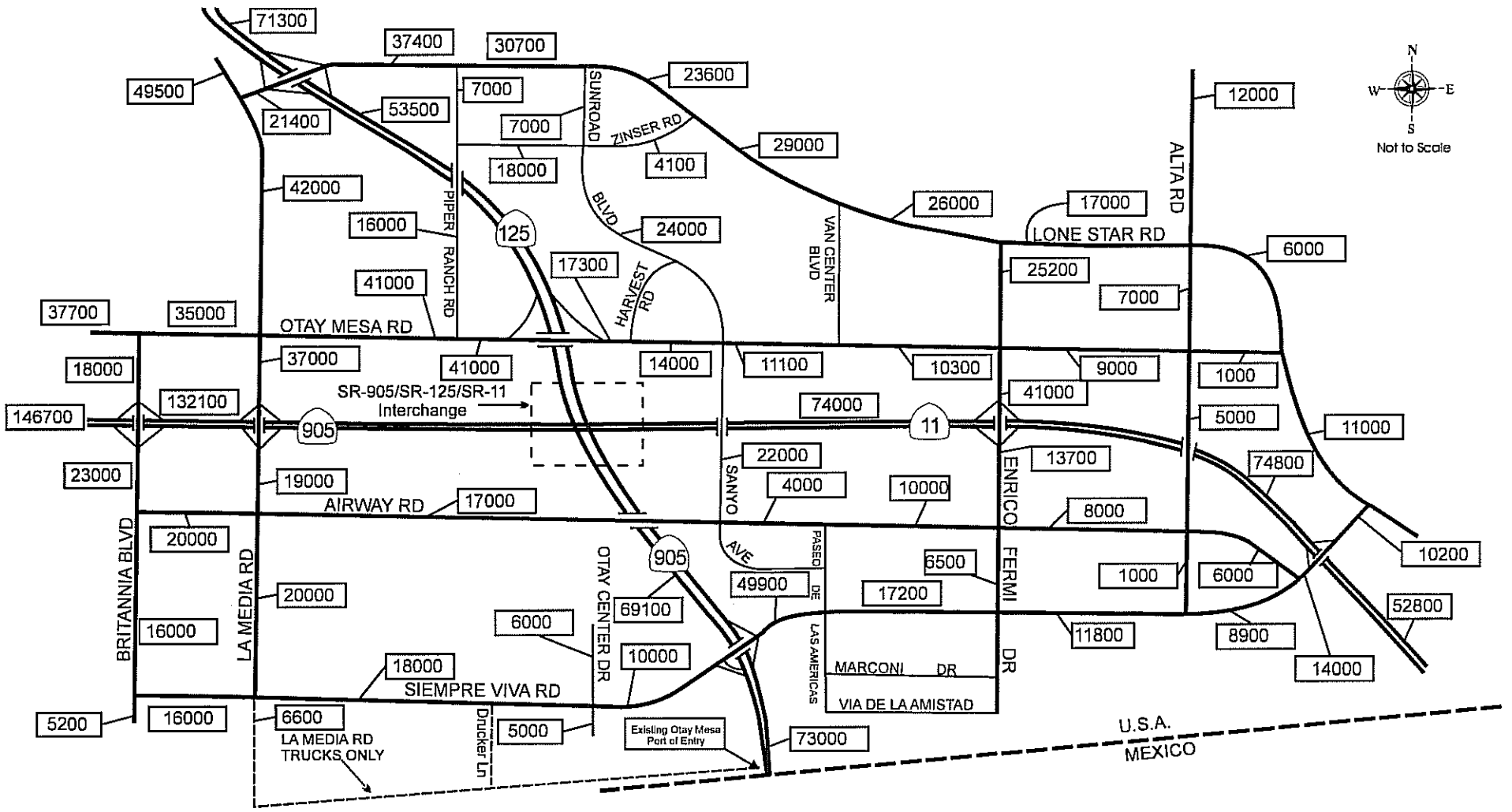
Horizon Year (2035) Average Daily Traffic - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-23a



Horizon Year (2035) Average Daily Traffic - No Toll / Two Interchange Design Variation

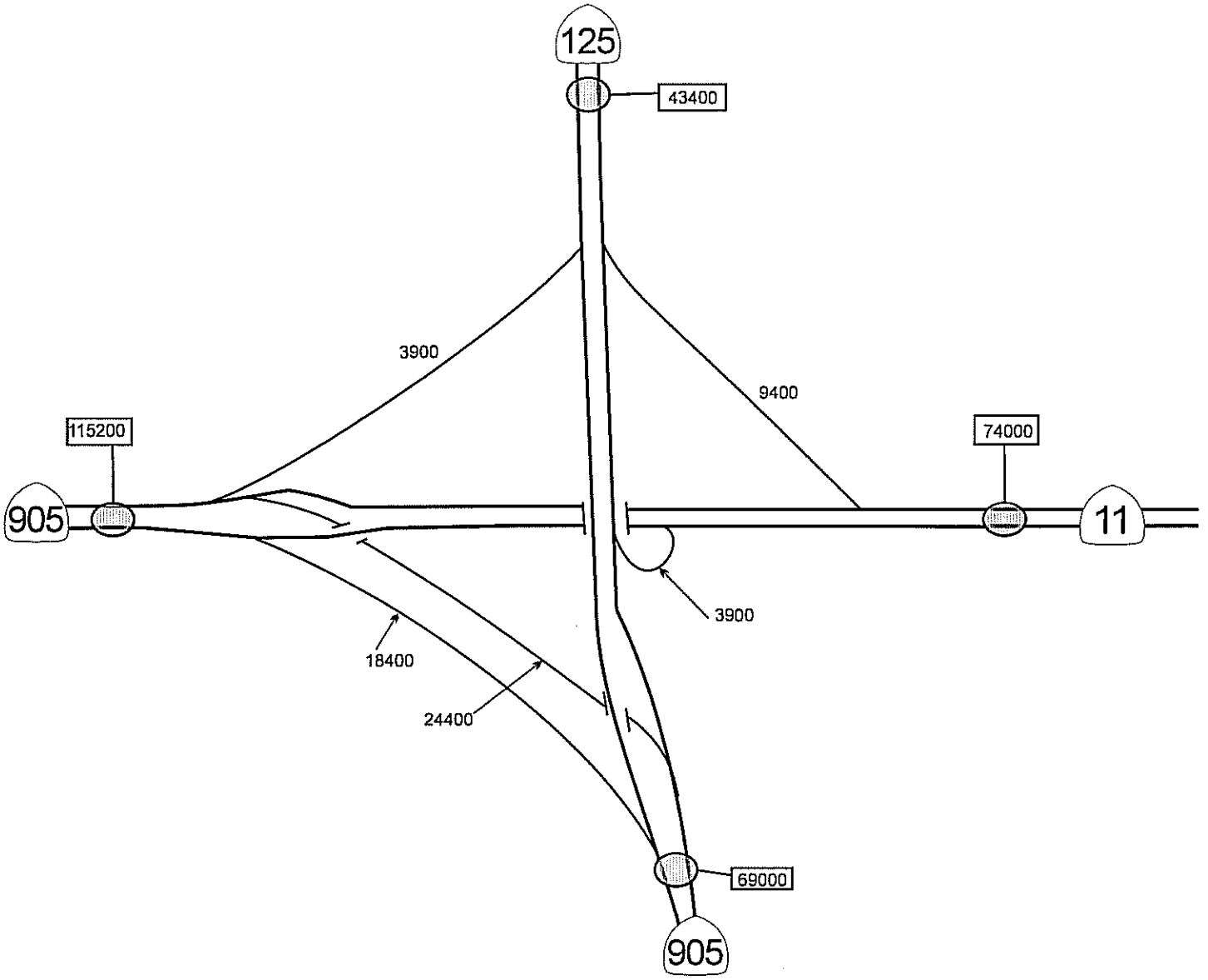
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-23b

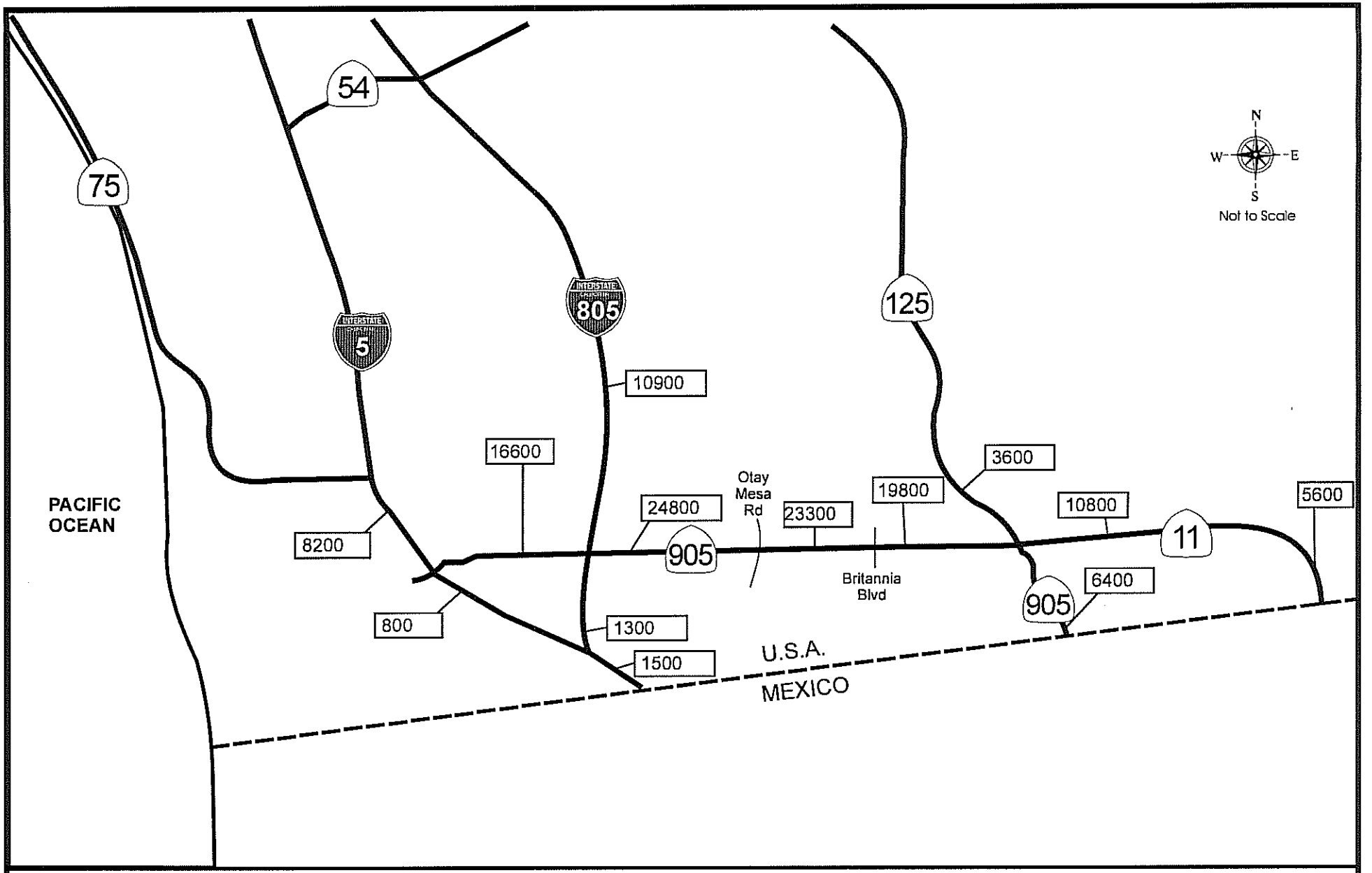


Horizon Year (2035) Average Daily Traffic - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-23c



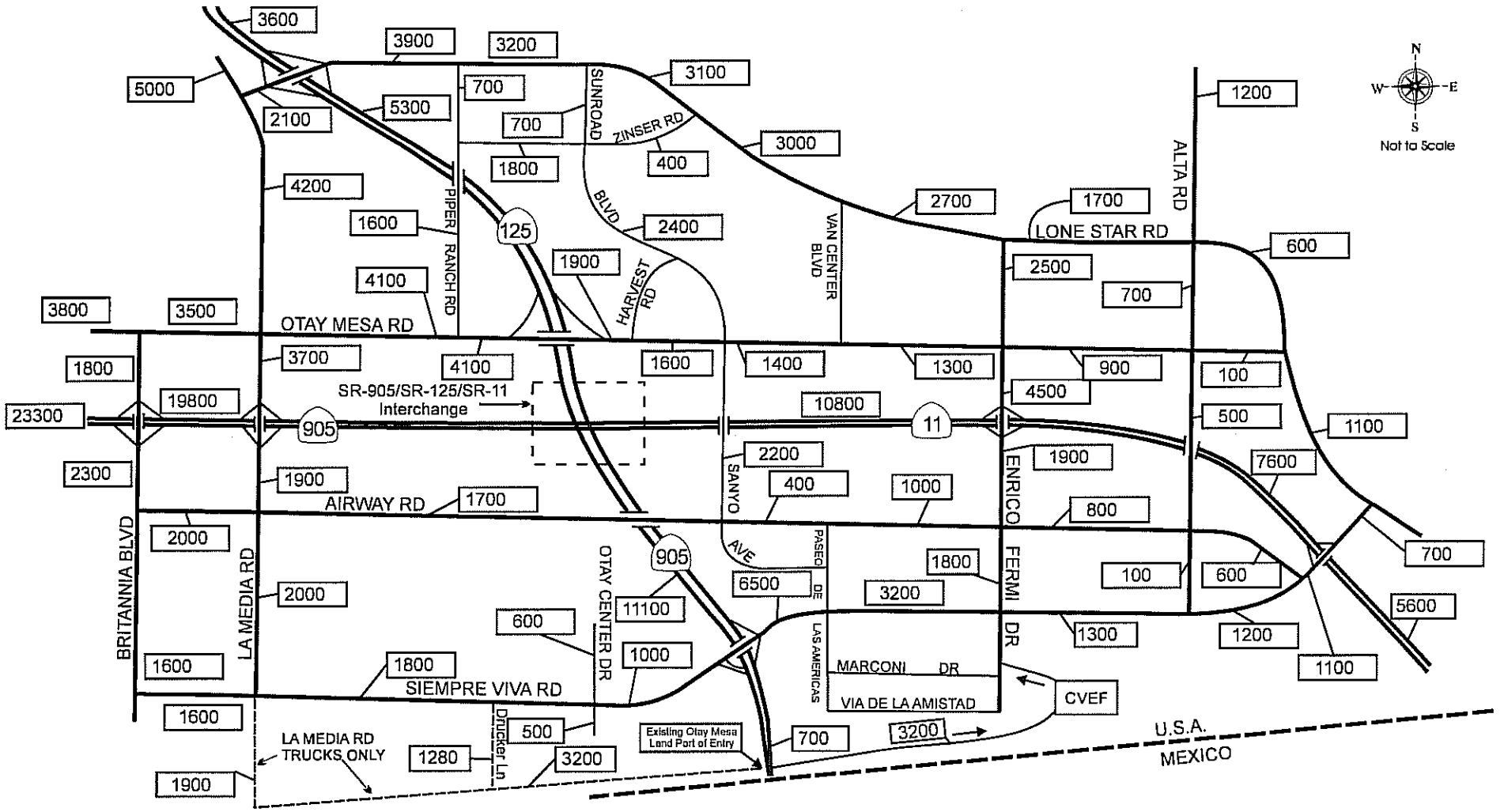
Horizon Year (2035) Daily Truck Trips - No Toll / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-24a



Horizon Year (2035) Daily Truck Trips - No Toll / Two Interchange Design Variation

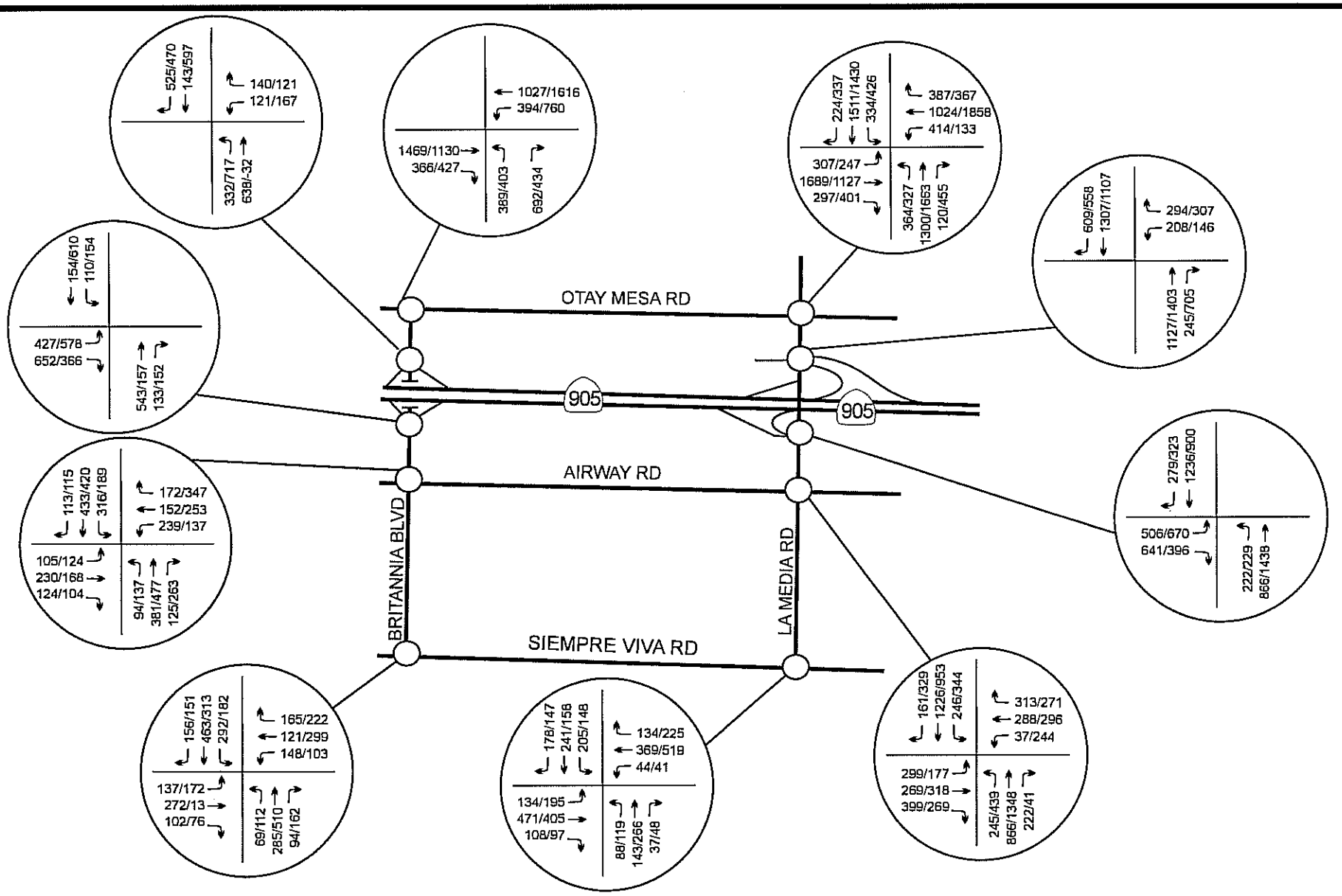
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-24b

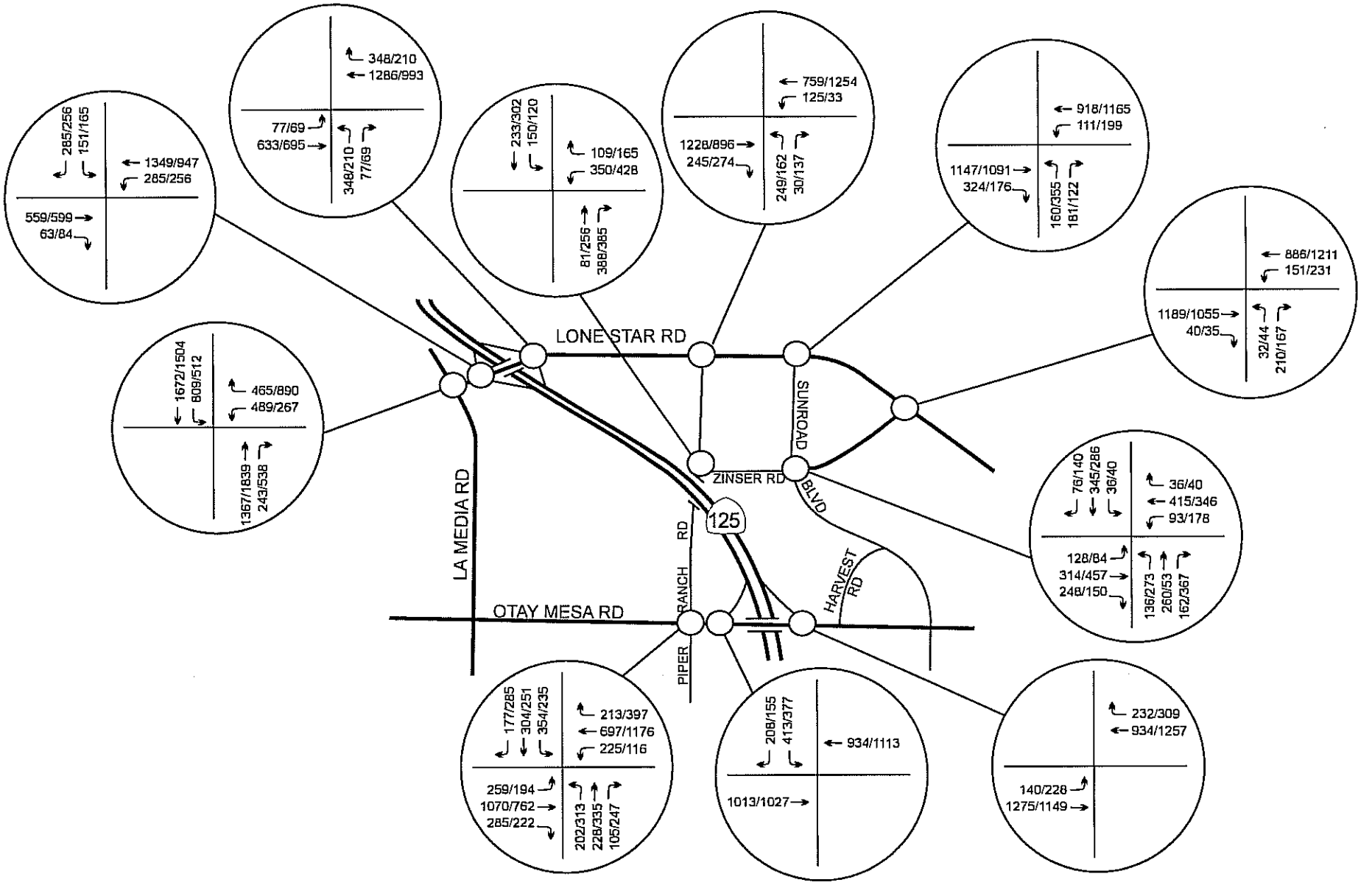


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-25a

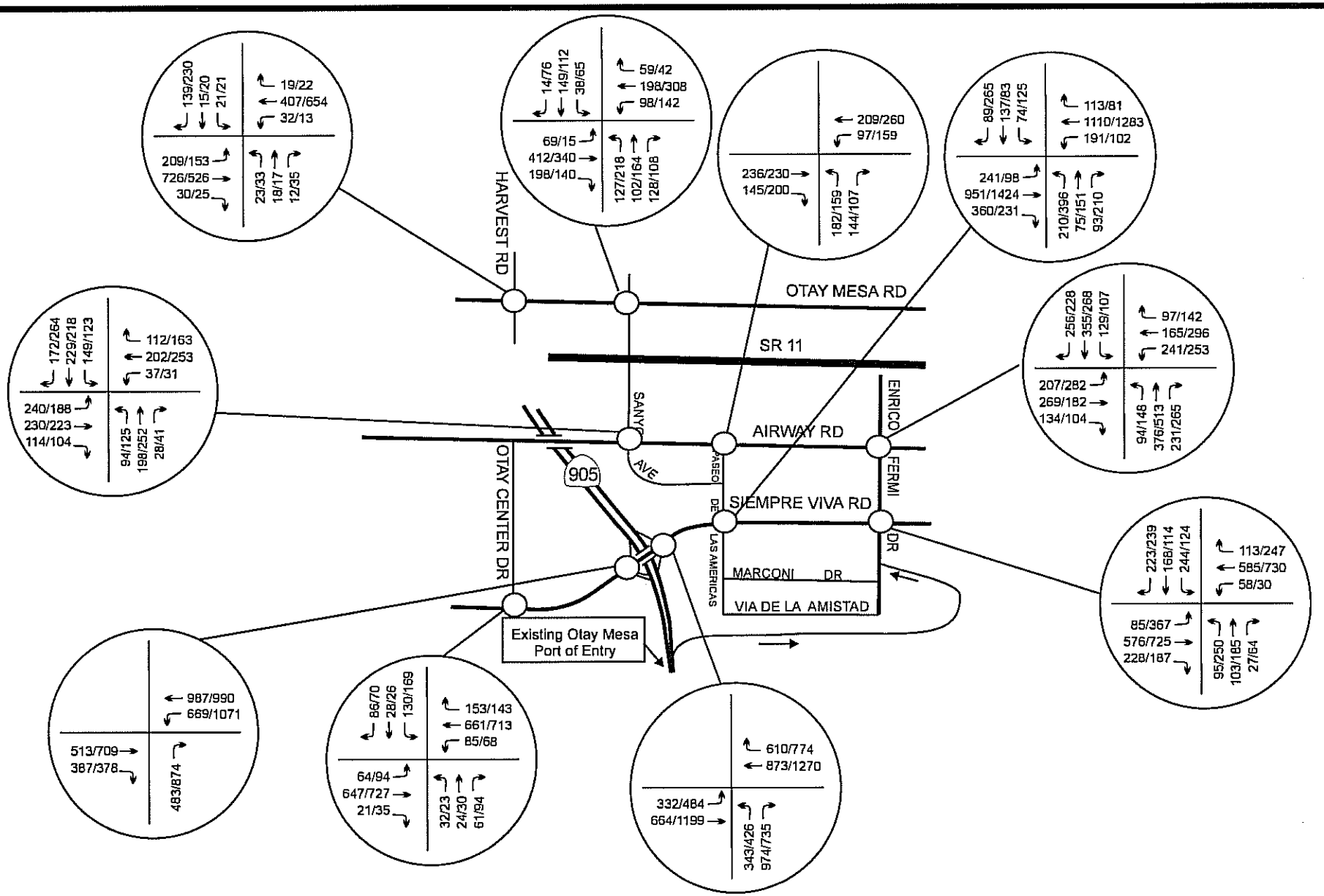


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-25b

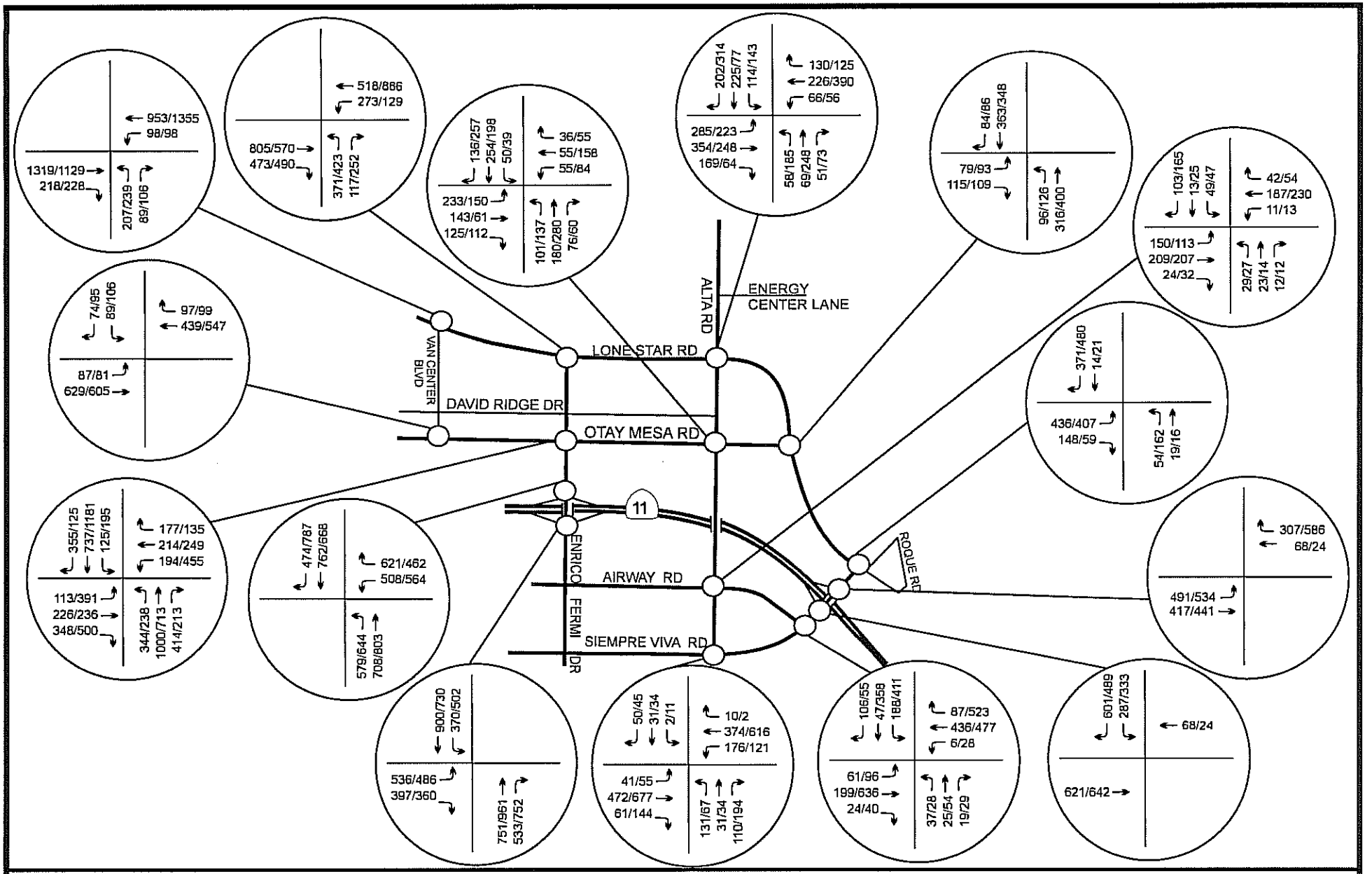


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-25c

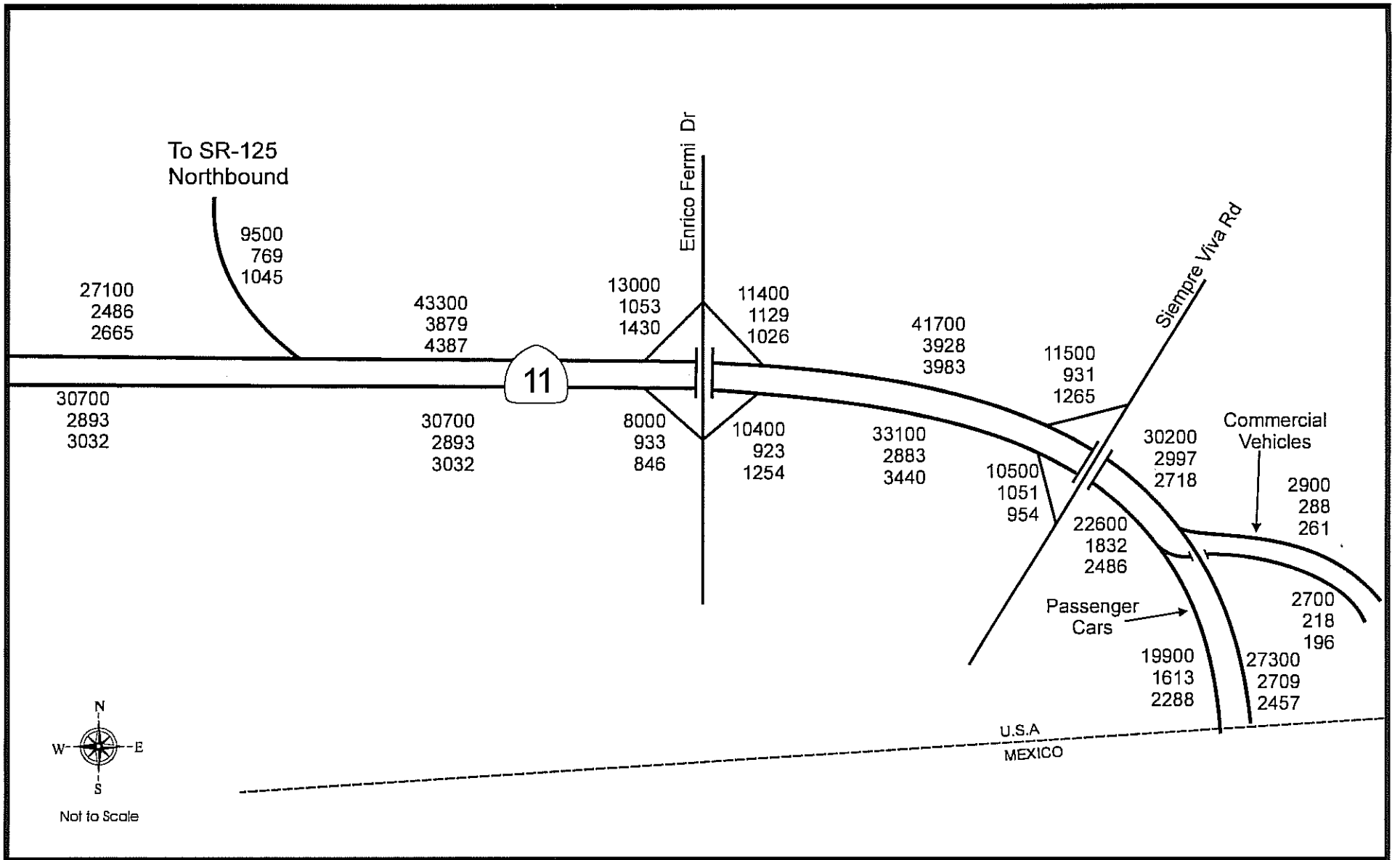


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-25d

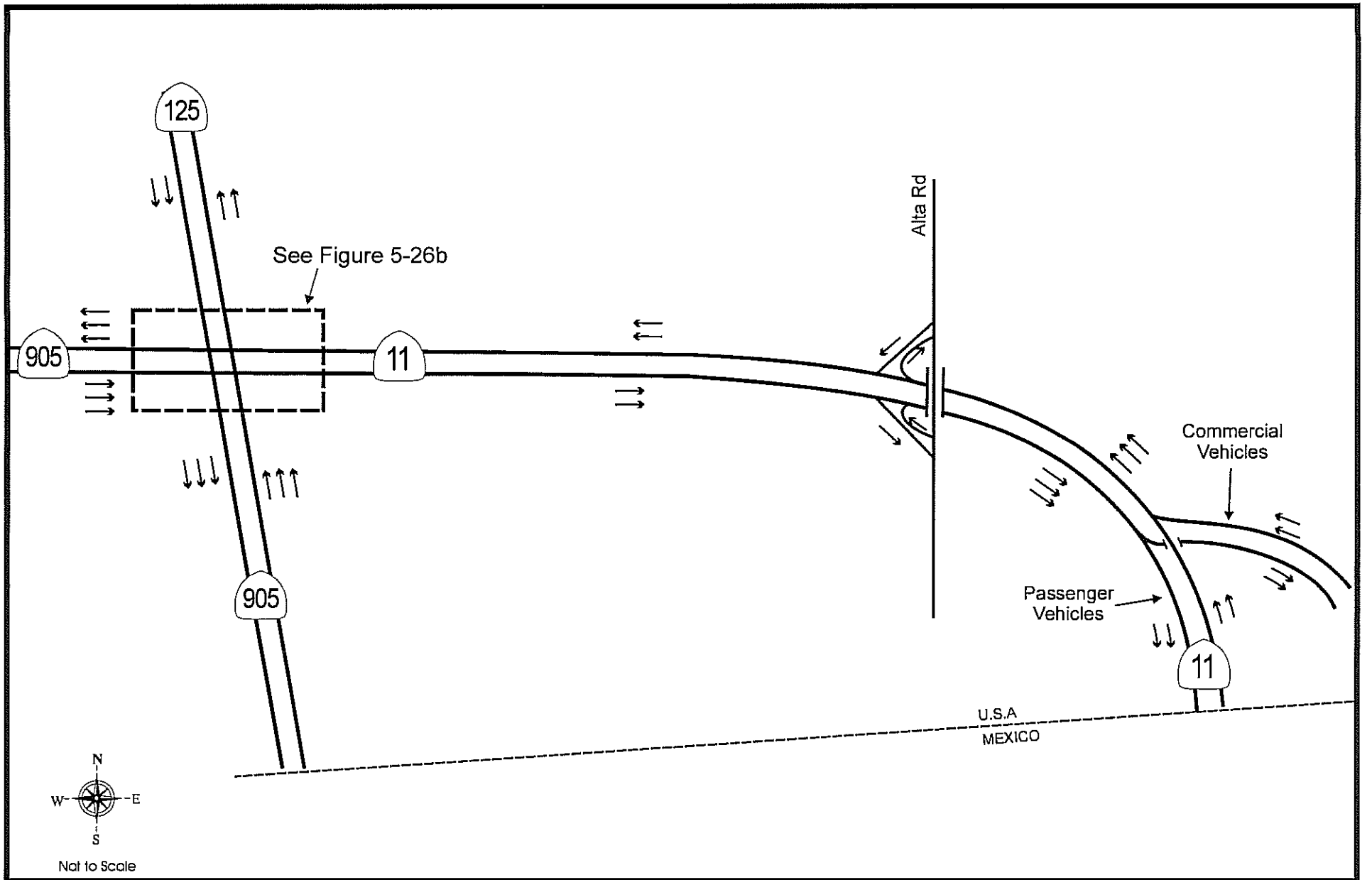


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - No Toll/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-25e

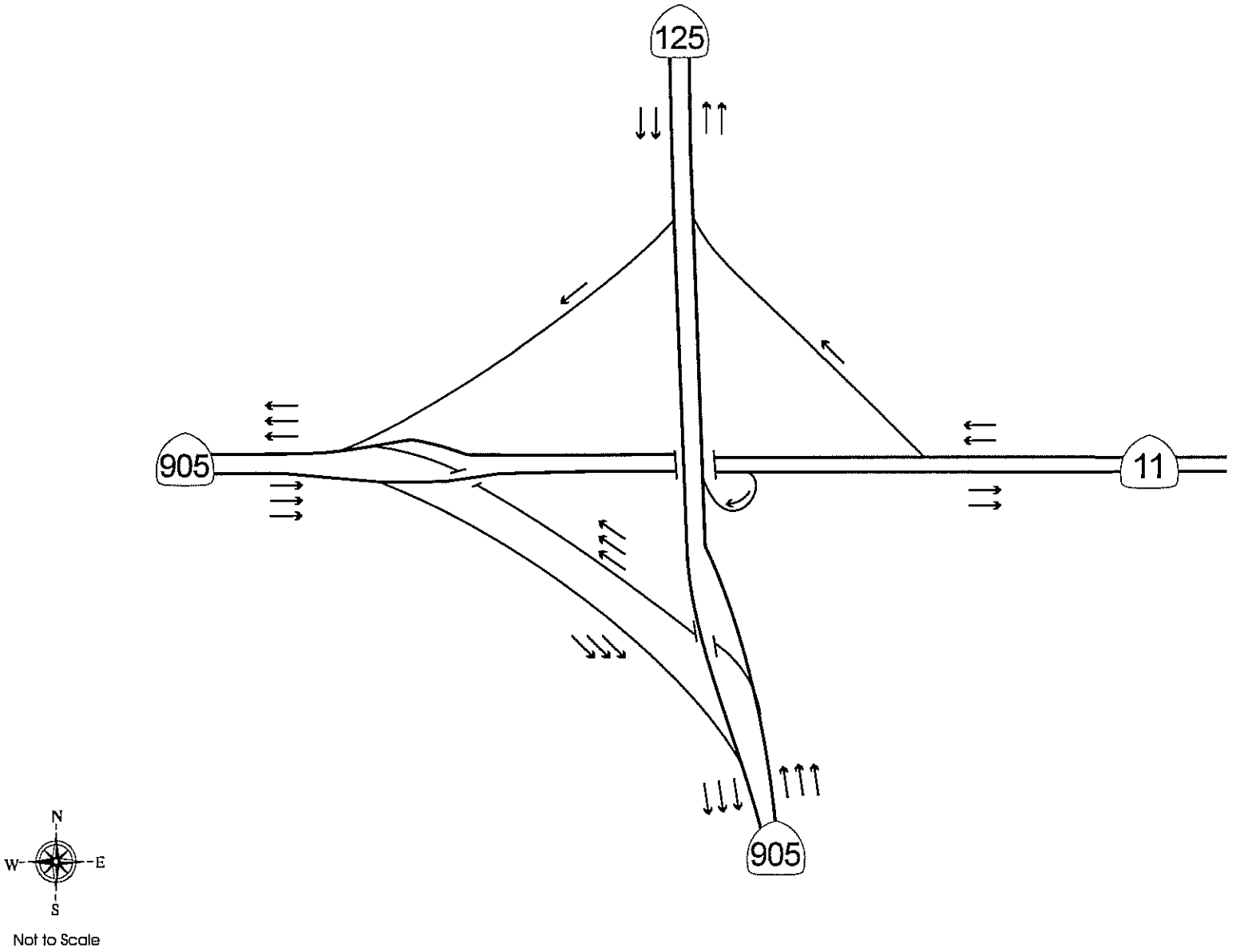


Horizon Year (2035) SR-11 Lane Geometry No Toll/One Interchange Design Variation

Legend

← Number of Lanes

Figure 5-26a

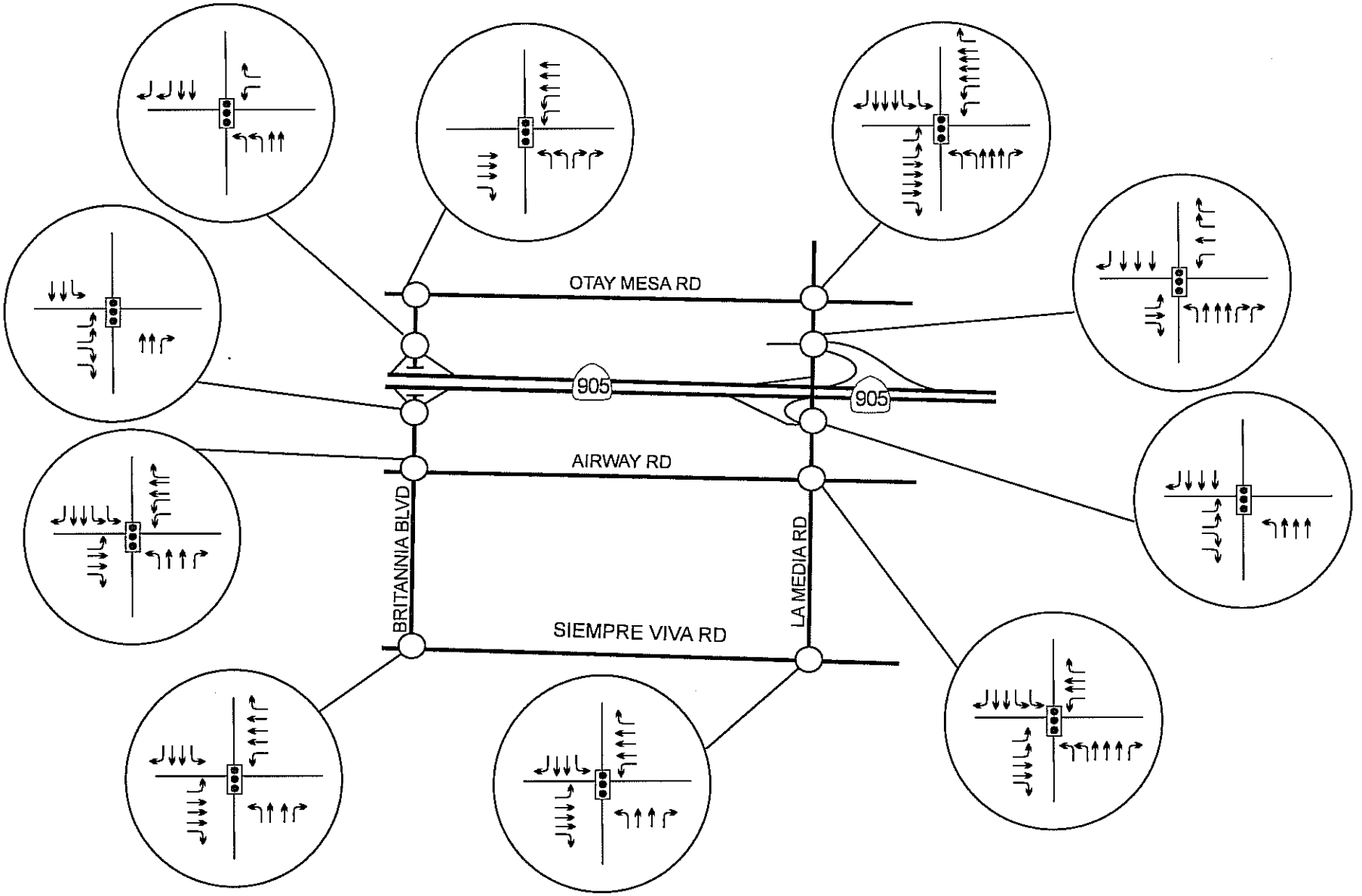


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
No Toll/One Interchange Design Variation

Figure 5-26b

Legend

← Number of Lanes

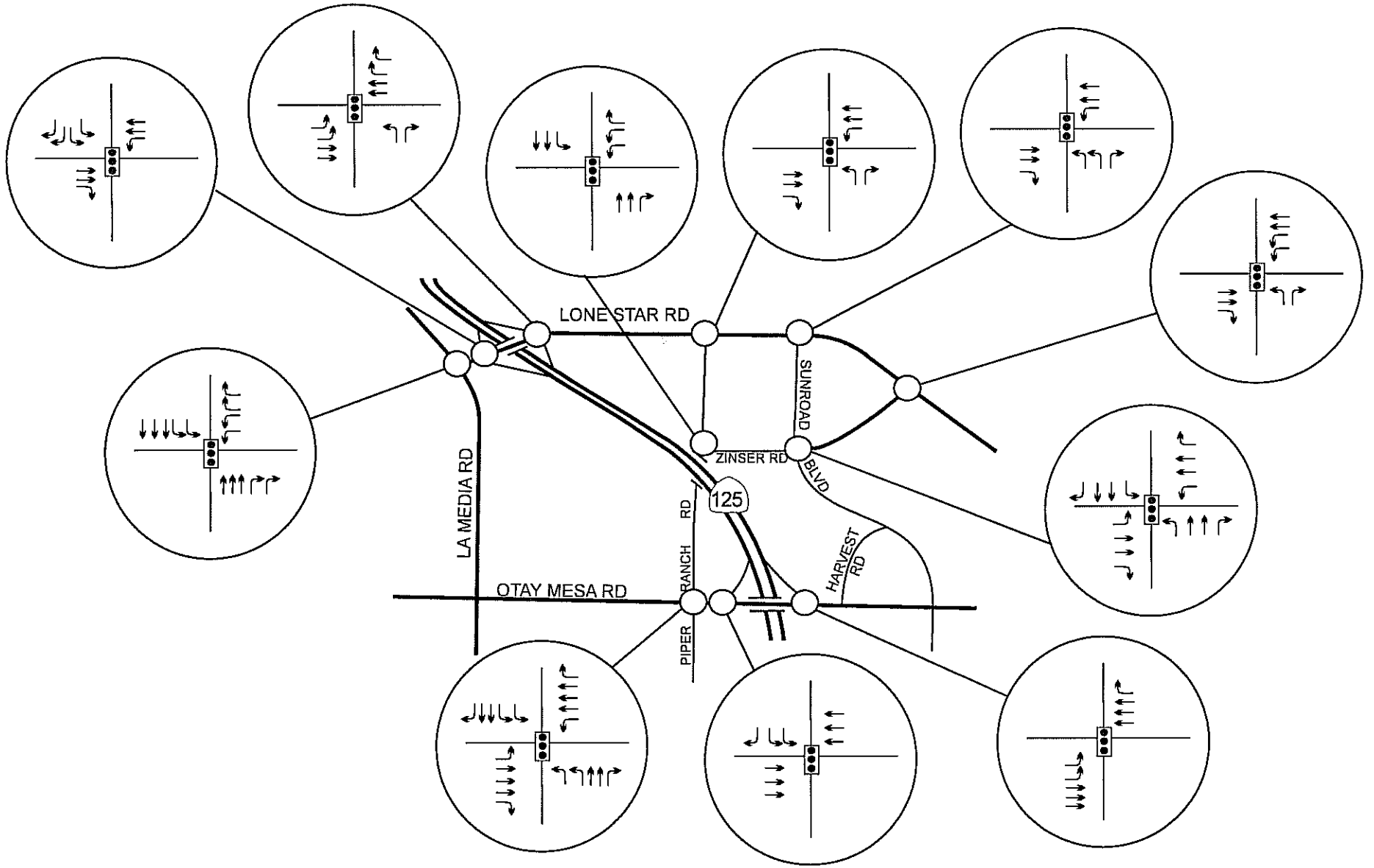


Horizon Year (2035) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-27a

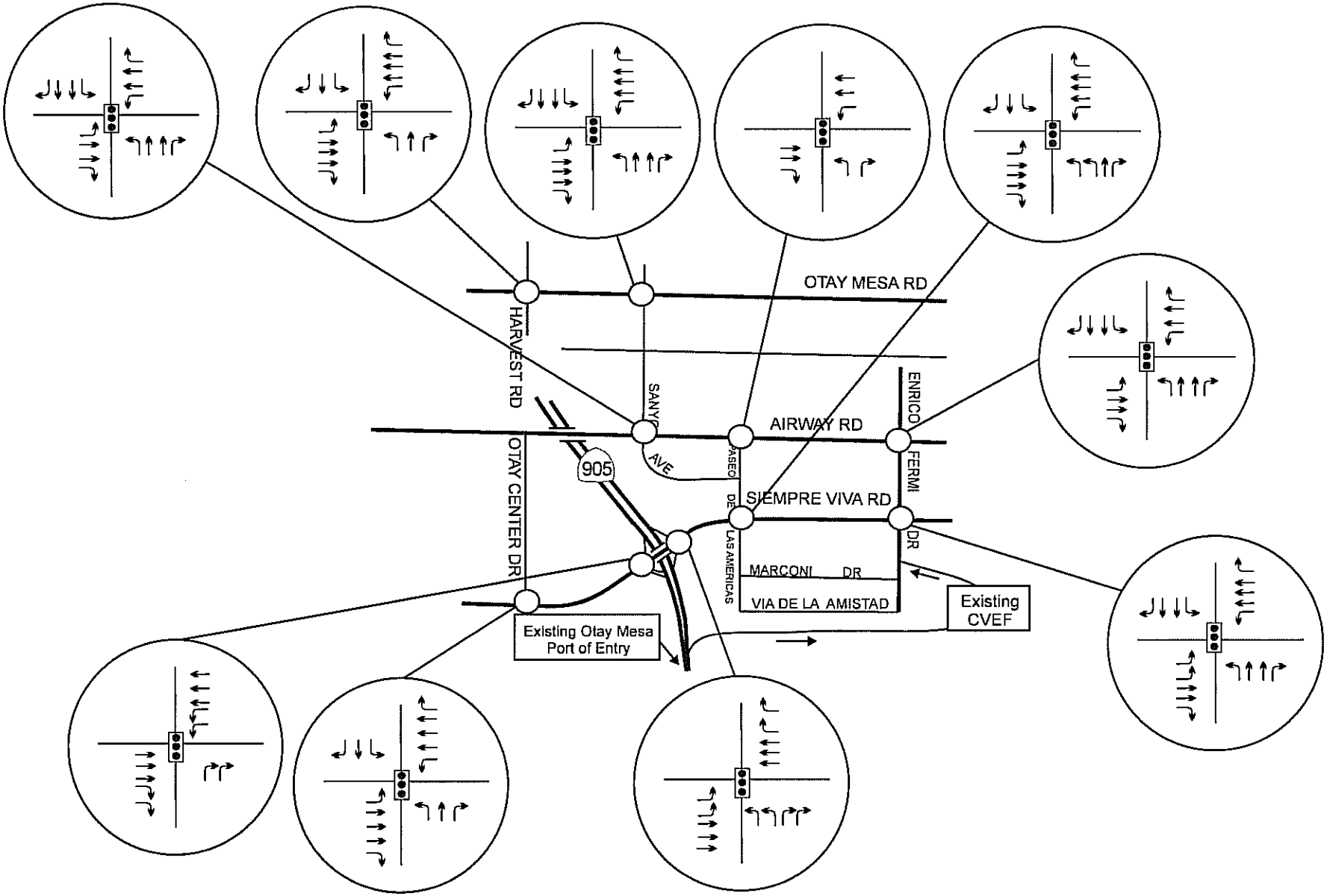


Horizon Year (2035) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-27b

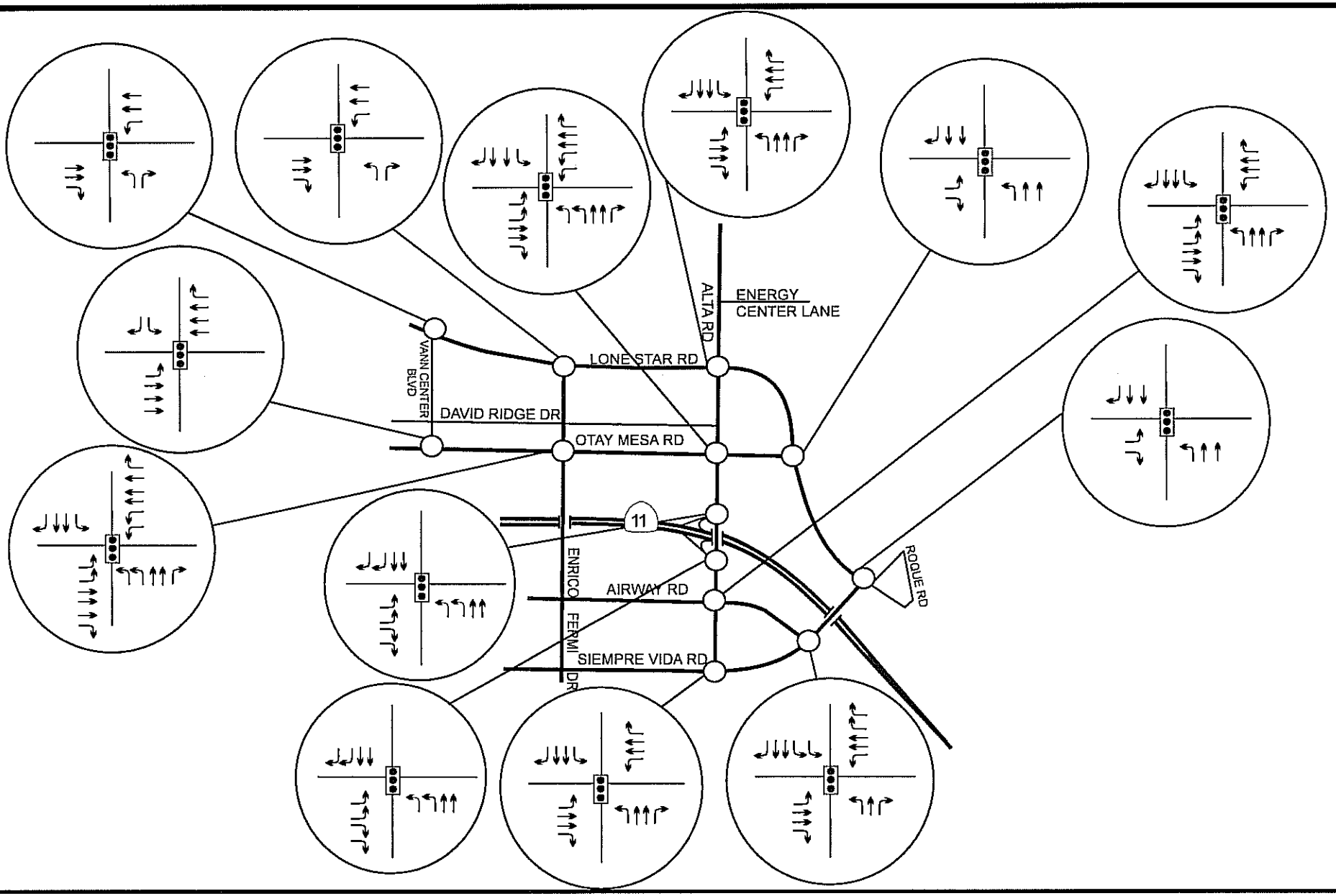


Horizon Year (2035) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-27c

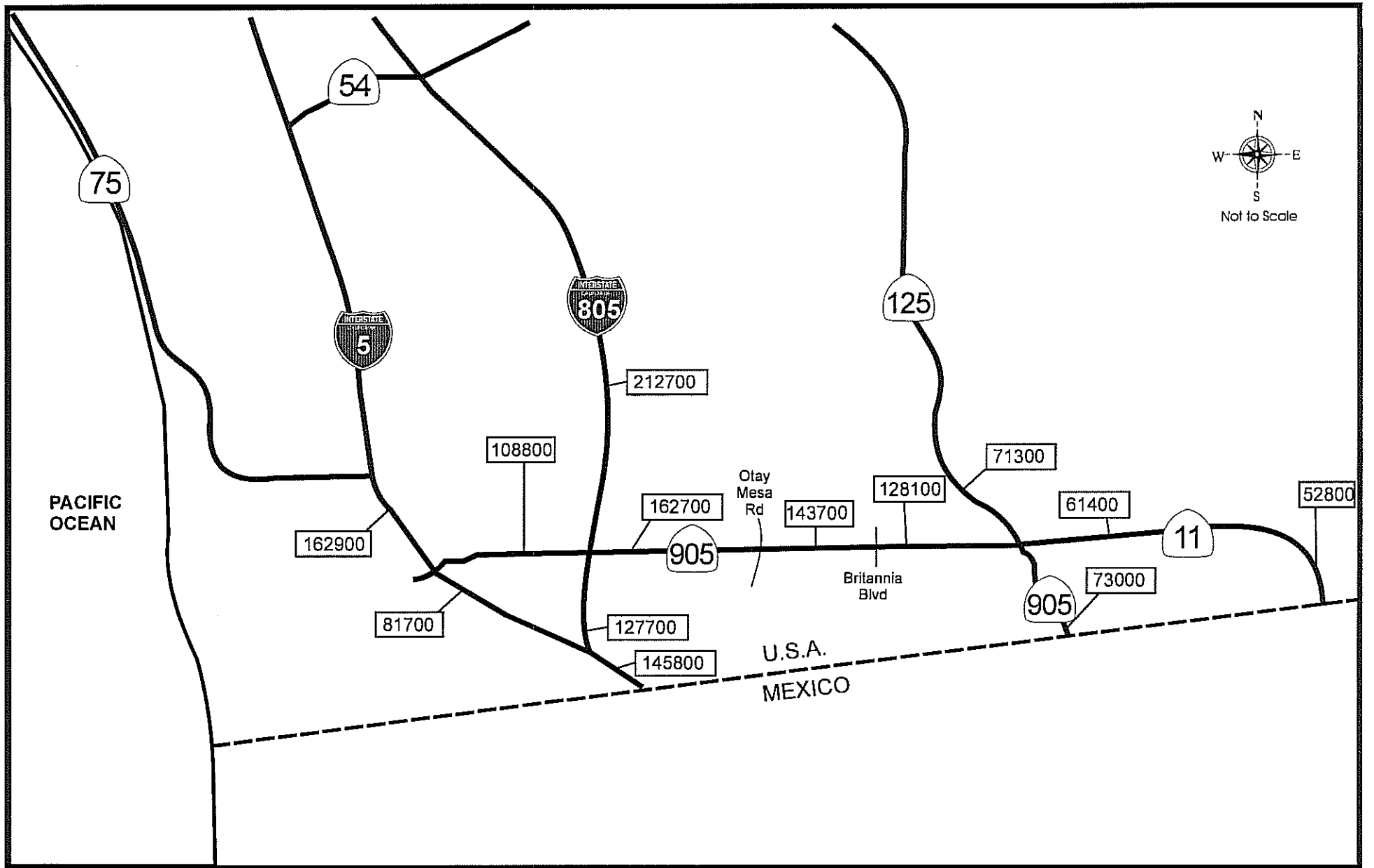


Horizon Year (2035) Intersection Lane Geometry - No Toll/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-27d



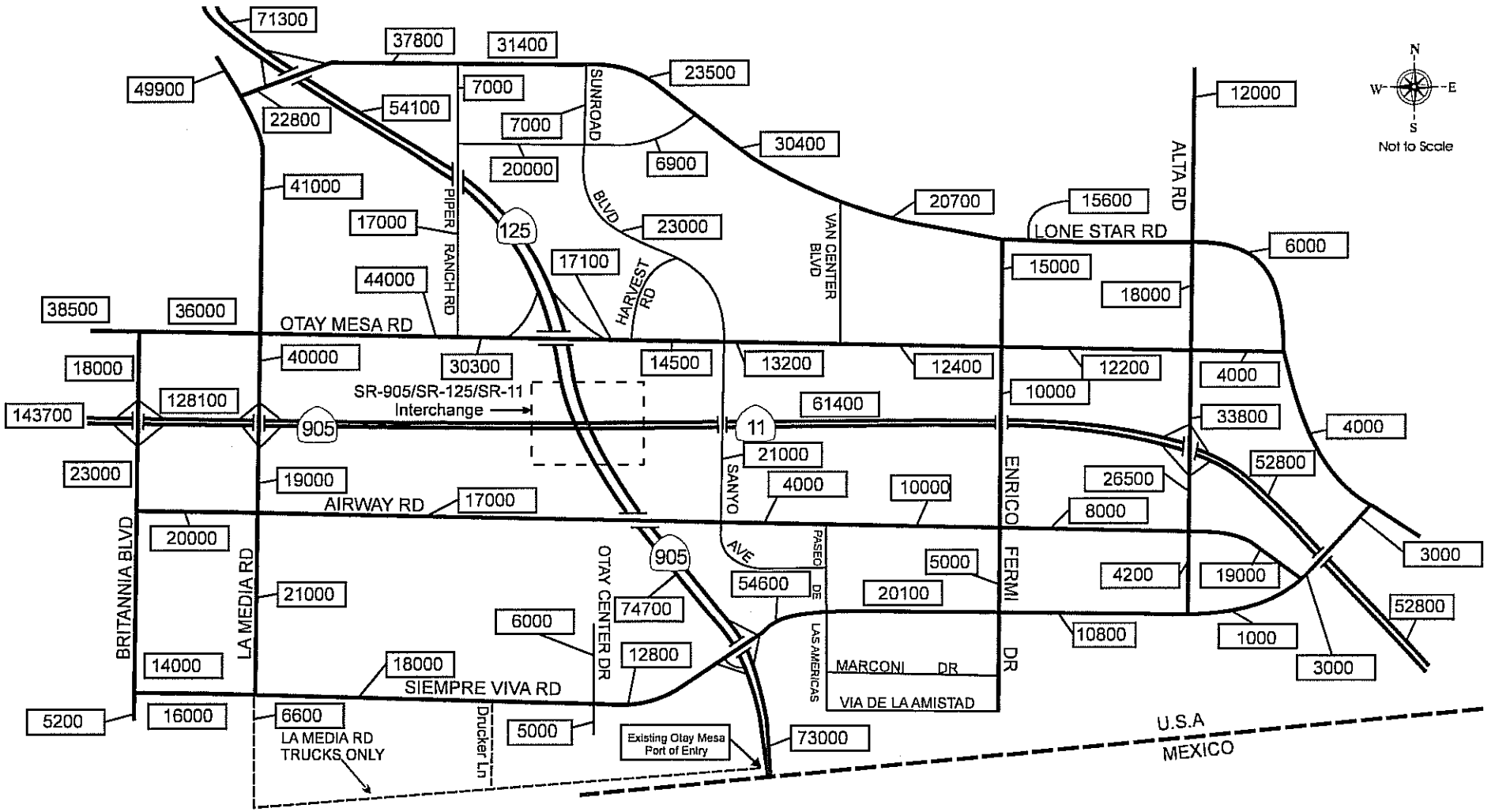
Horizon Year (2035) Average Daily Traffic - No Toll / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-28a



Horizon Year (2035) Average Daily Traffic - No Toll / One Interchange Design Variation

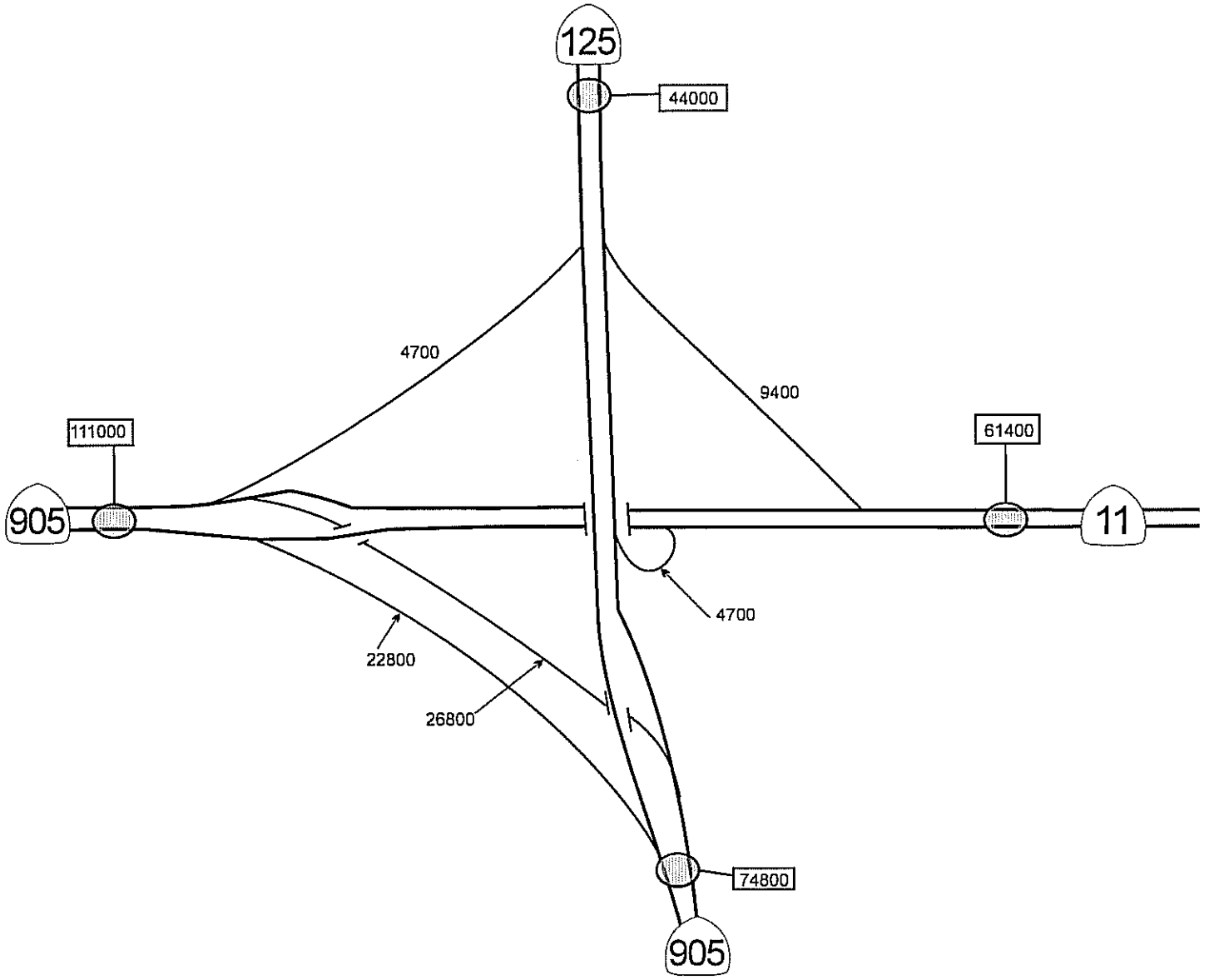
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-28b

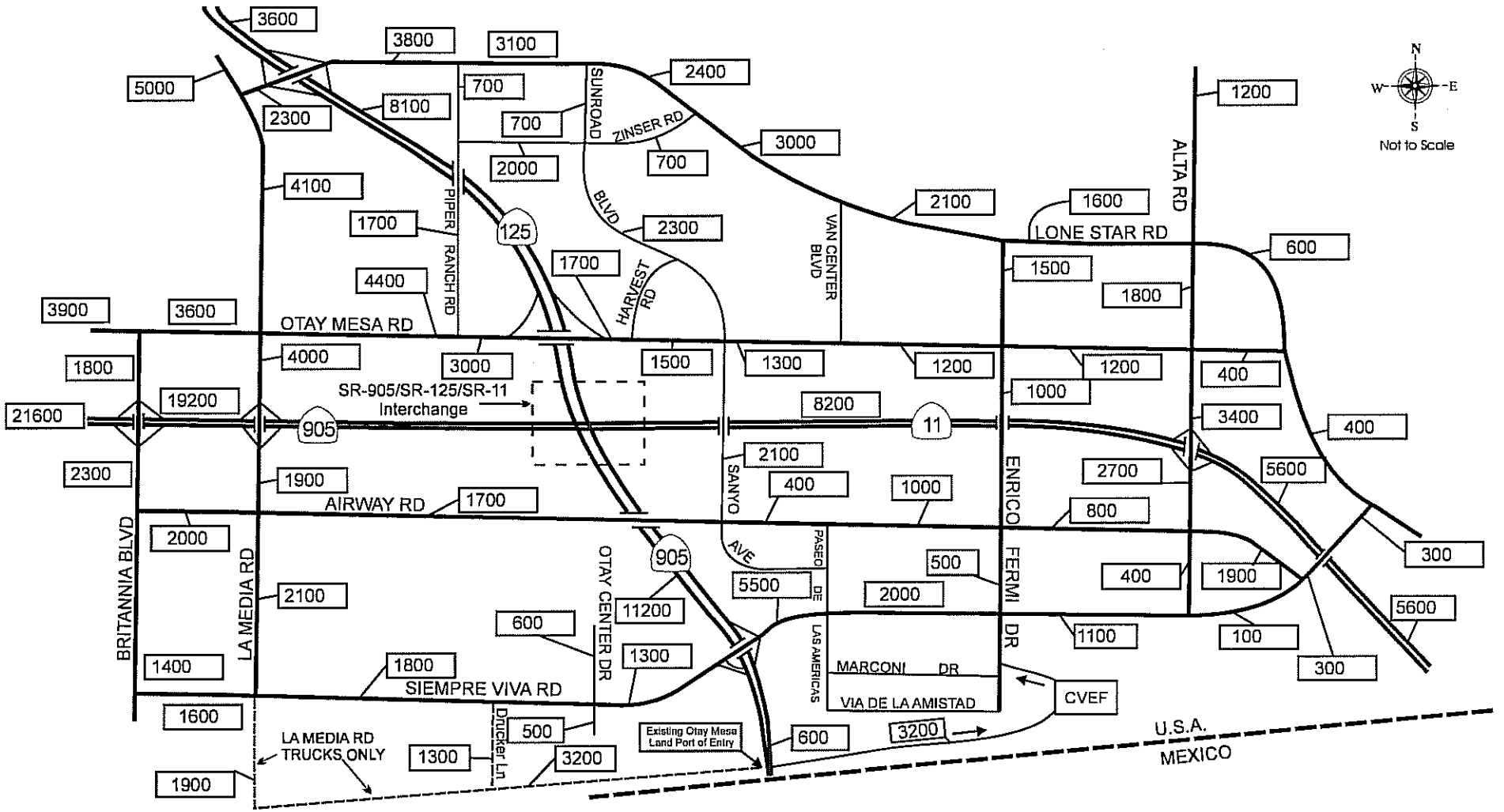


Horizon Year (2035) Average Daily Traffic - No Toll / One Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-28c

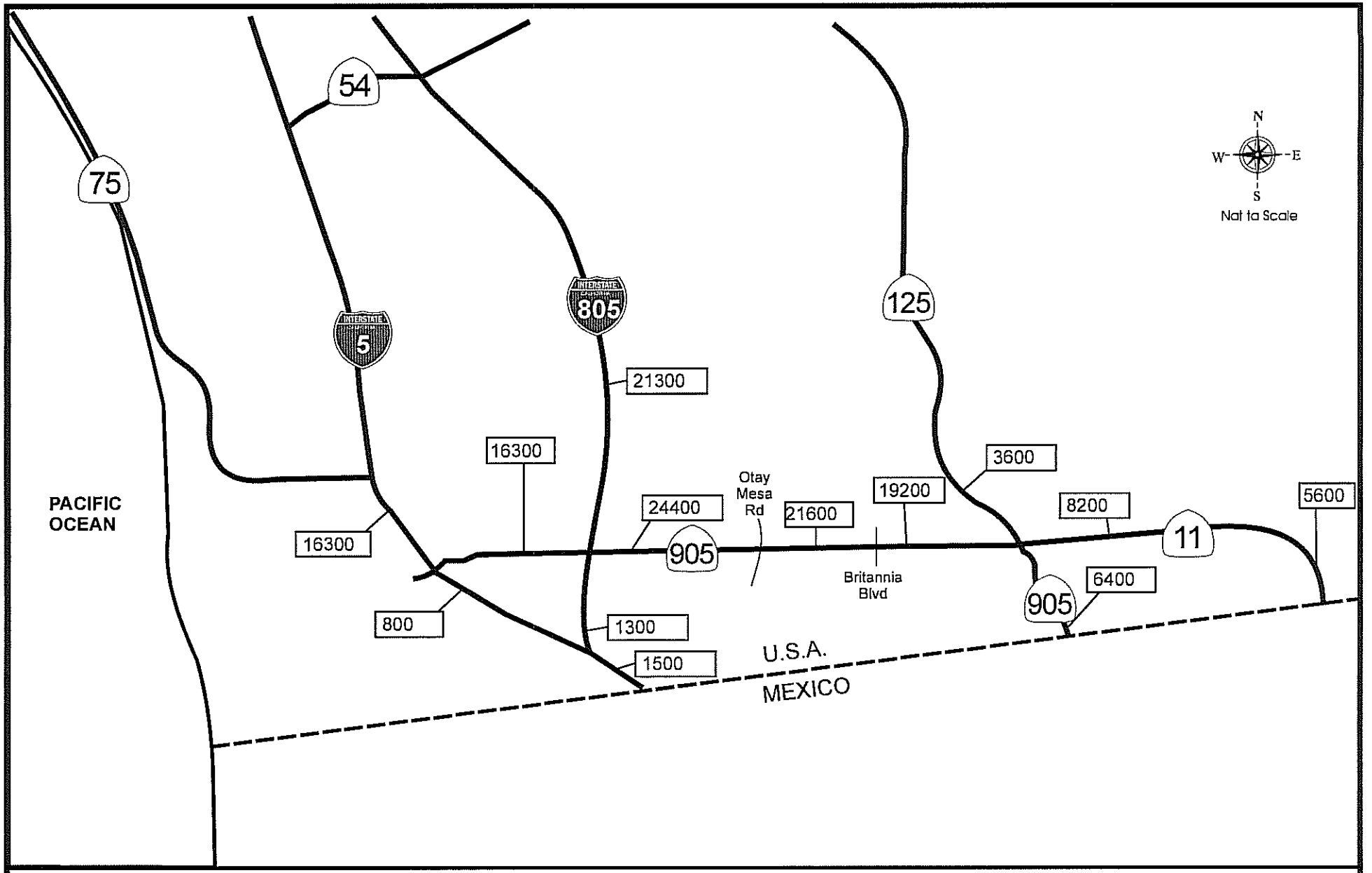


Horizon Year (2035) Daily Truck Trips - No Toll / One Interchange

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-29b



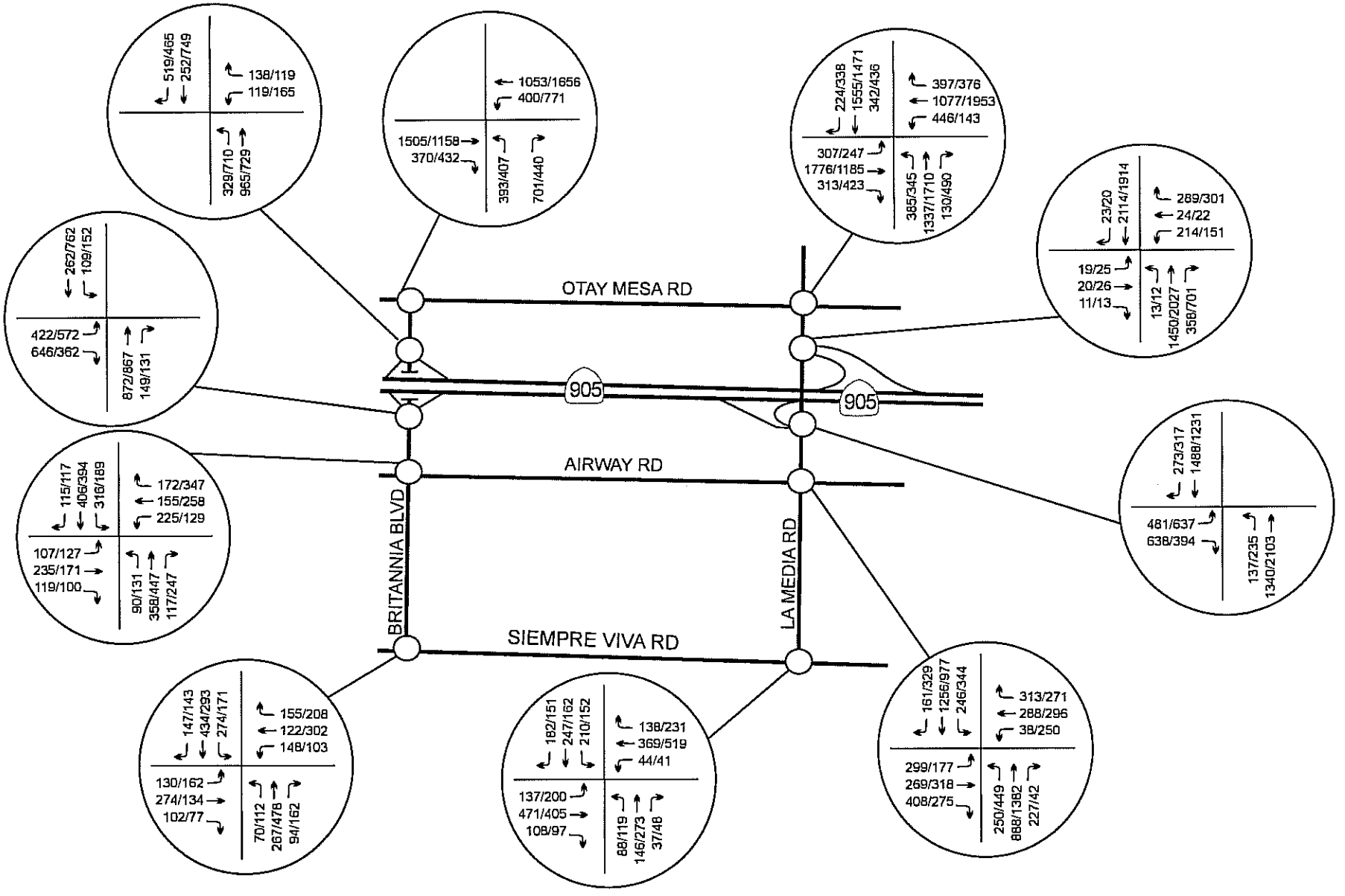
Horizon Year (2035) Daily Truck Trips - No Toll / One Interchange

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-29a

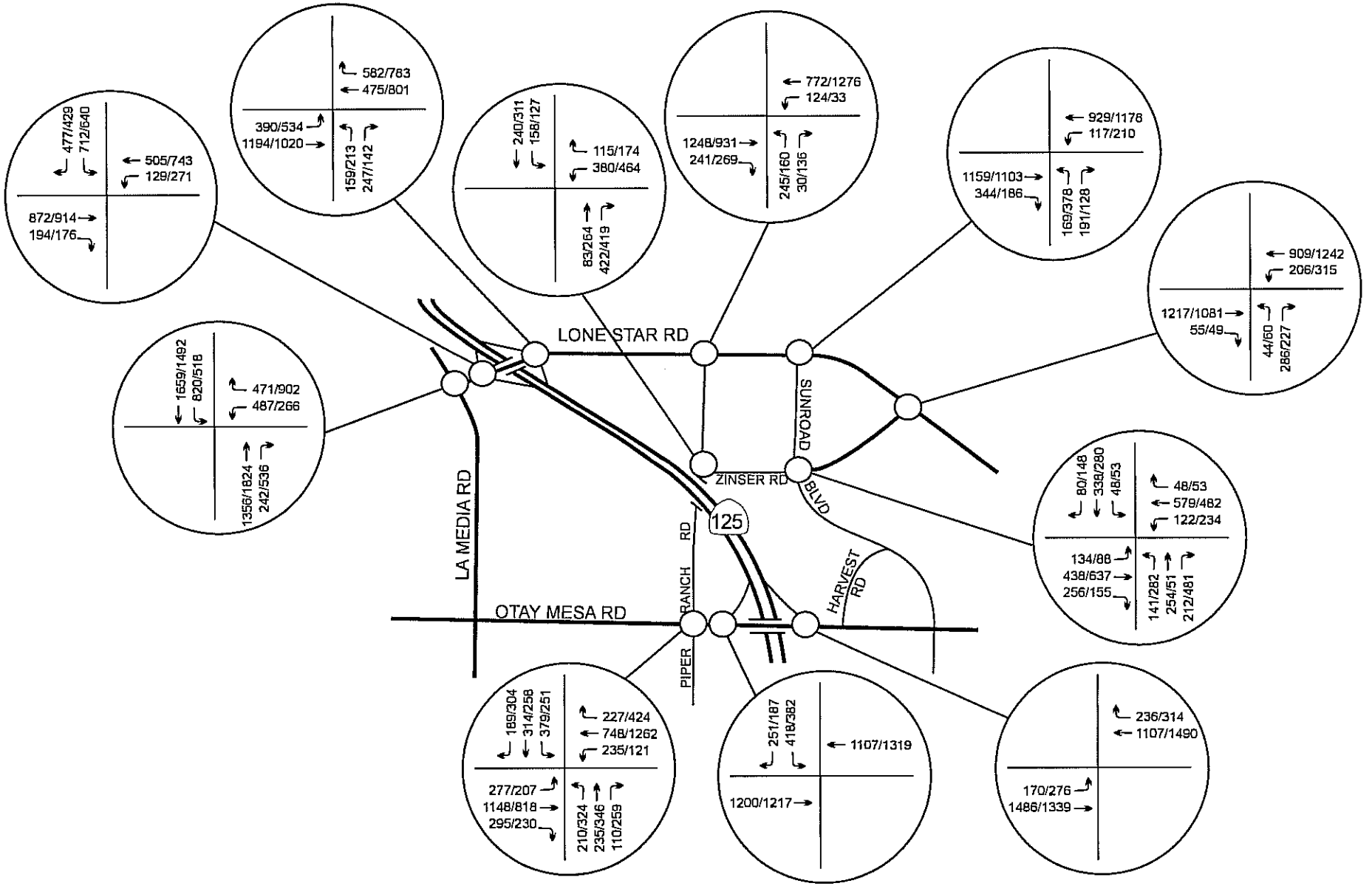


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-30a

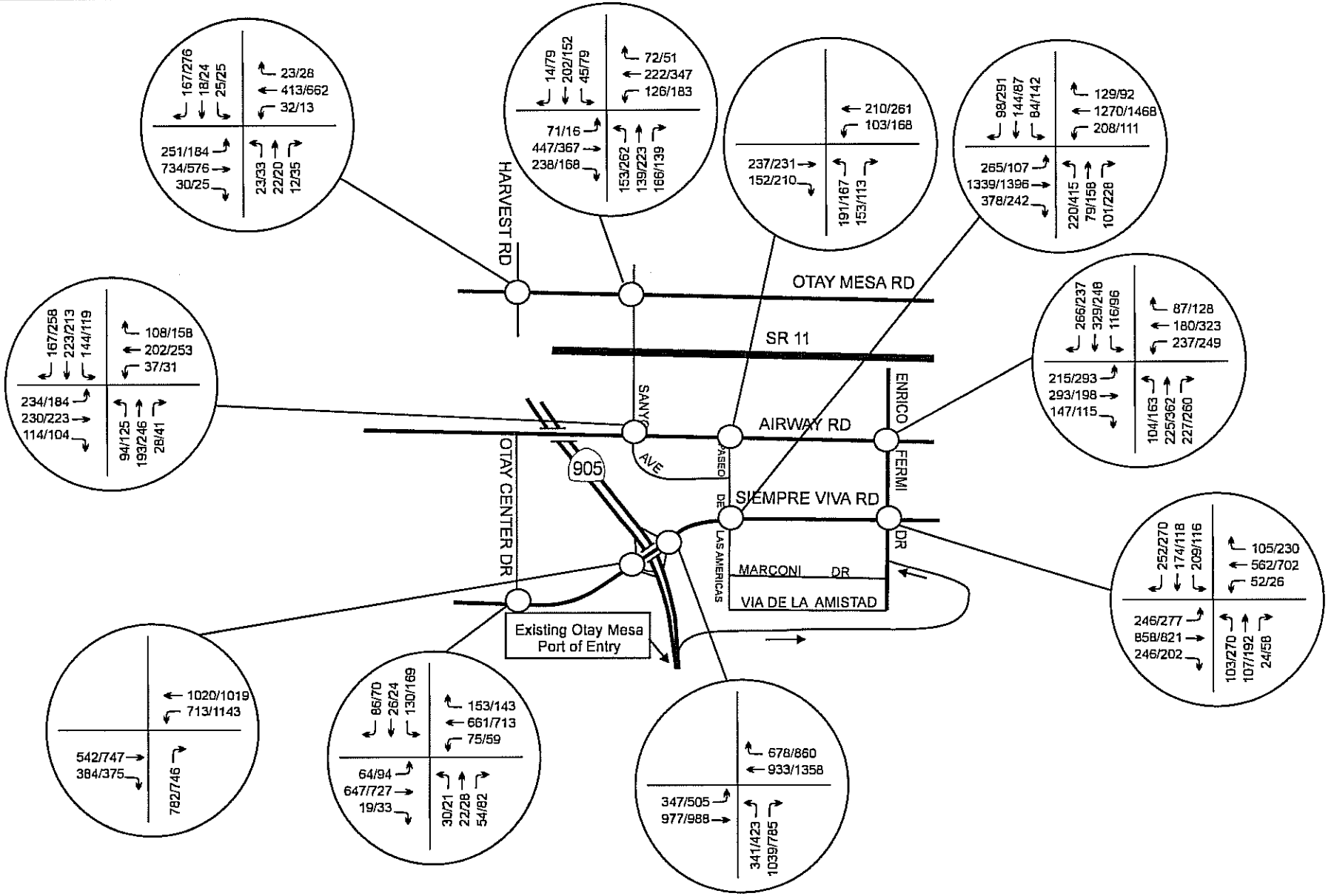


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-30b

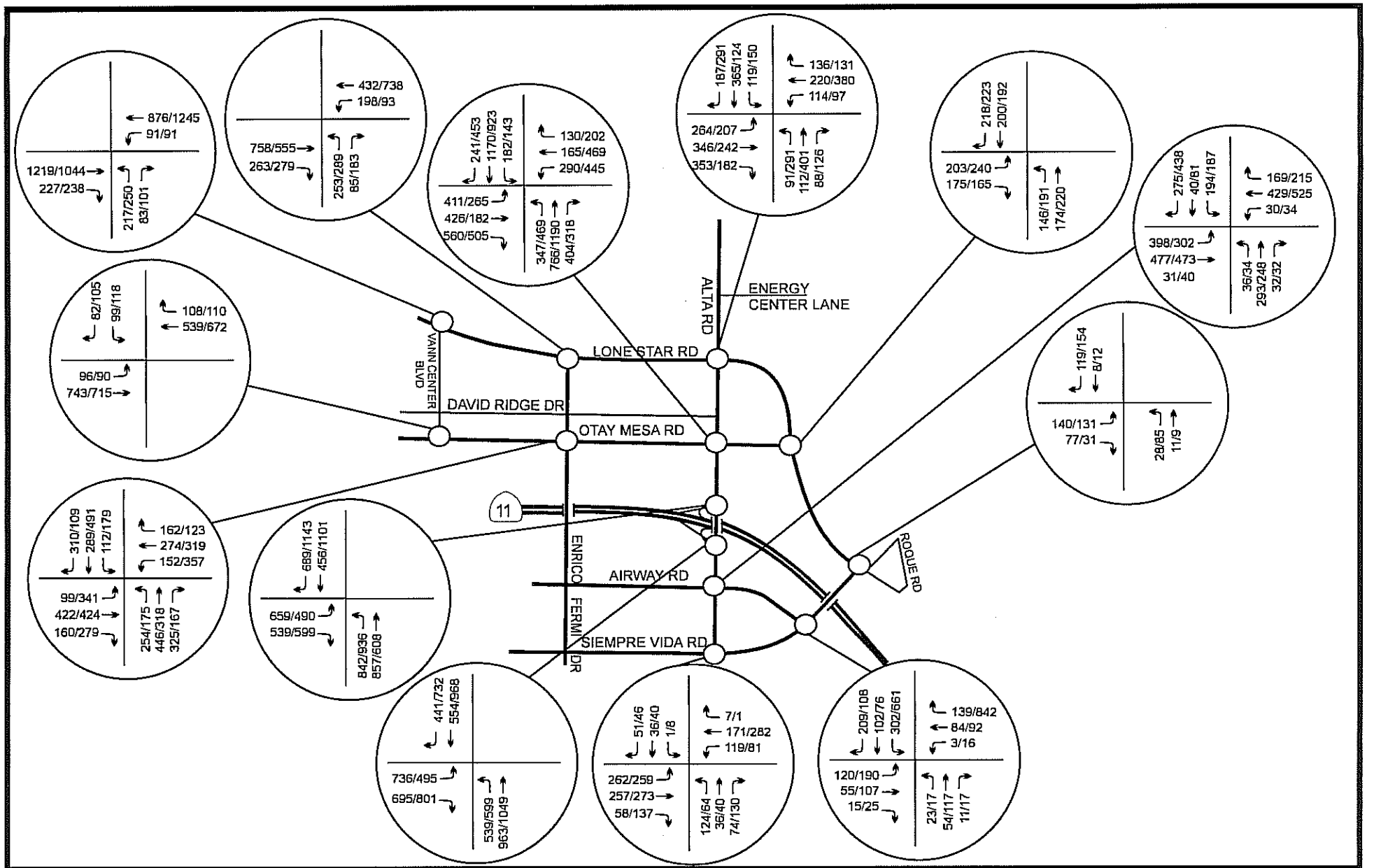


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-30c

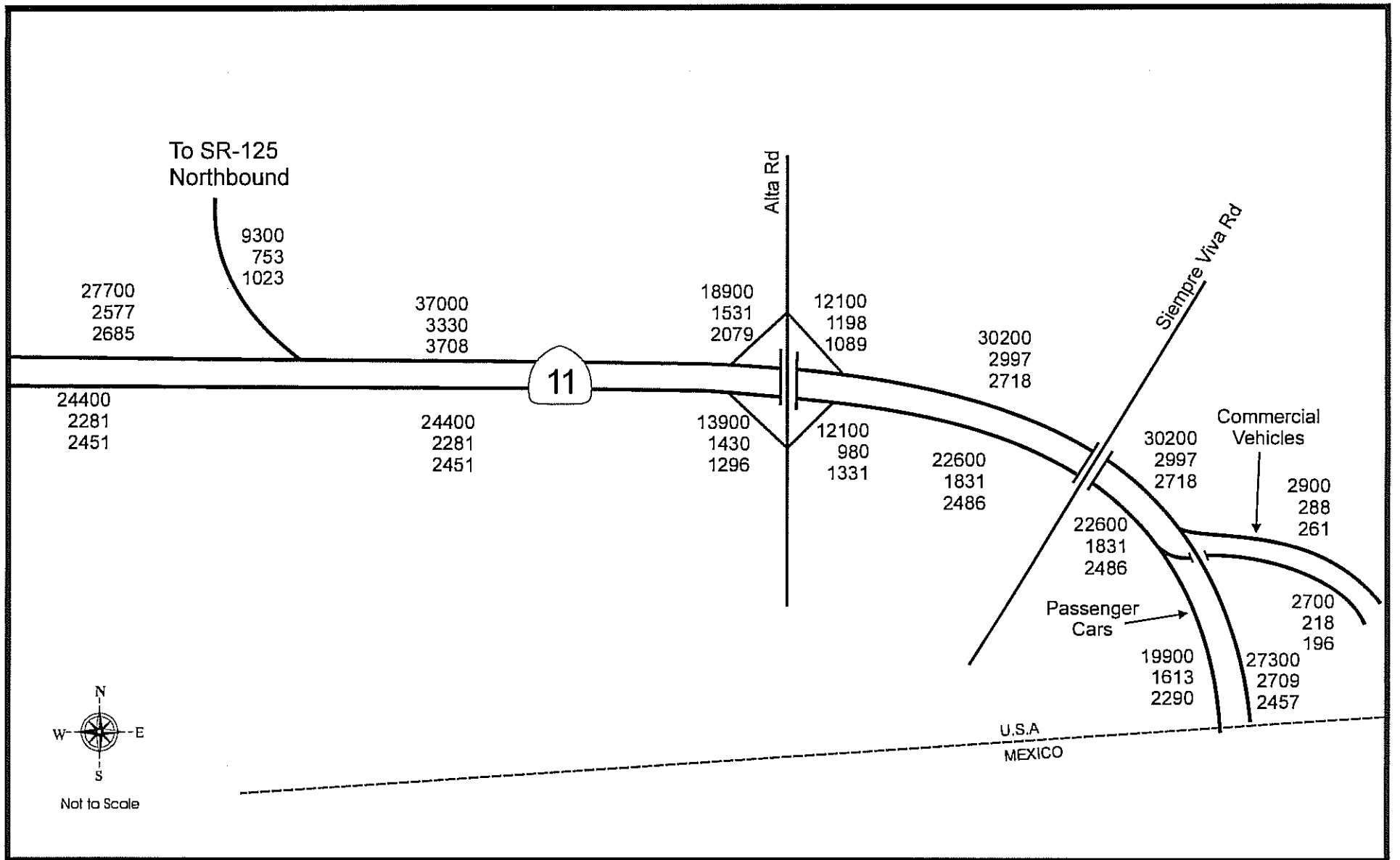


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-30d

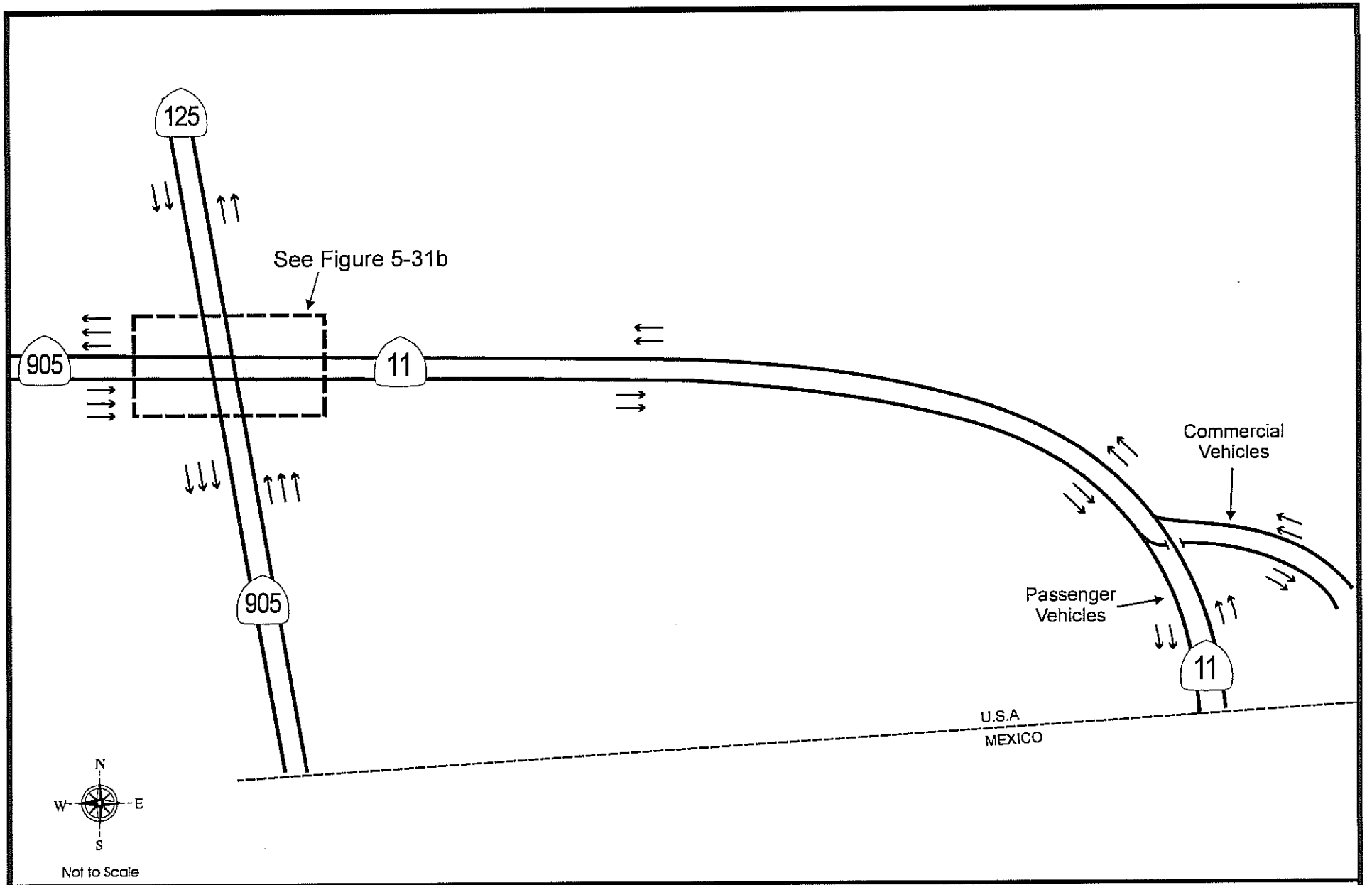


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - No Toll/One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-30e

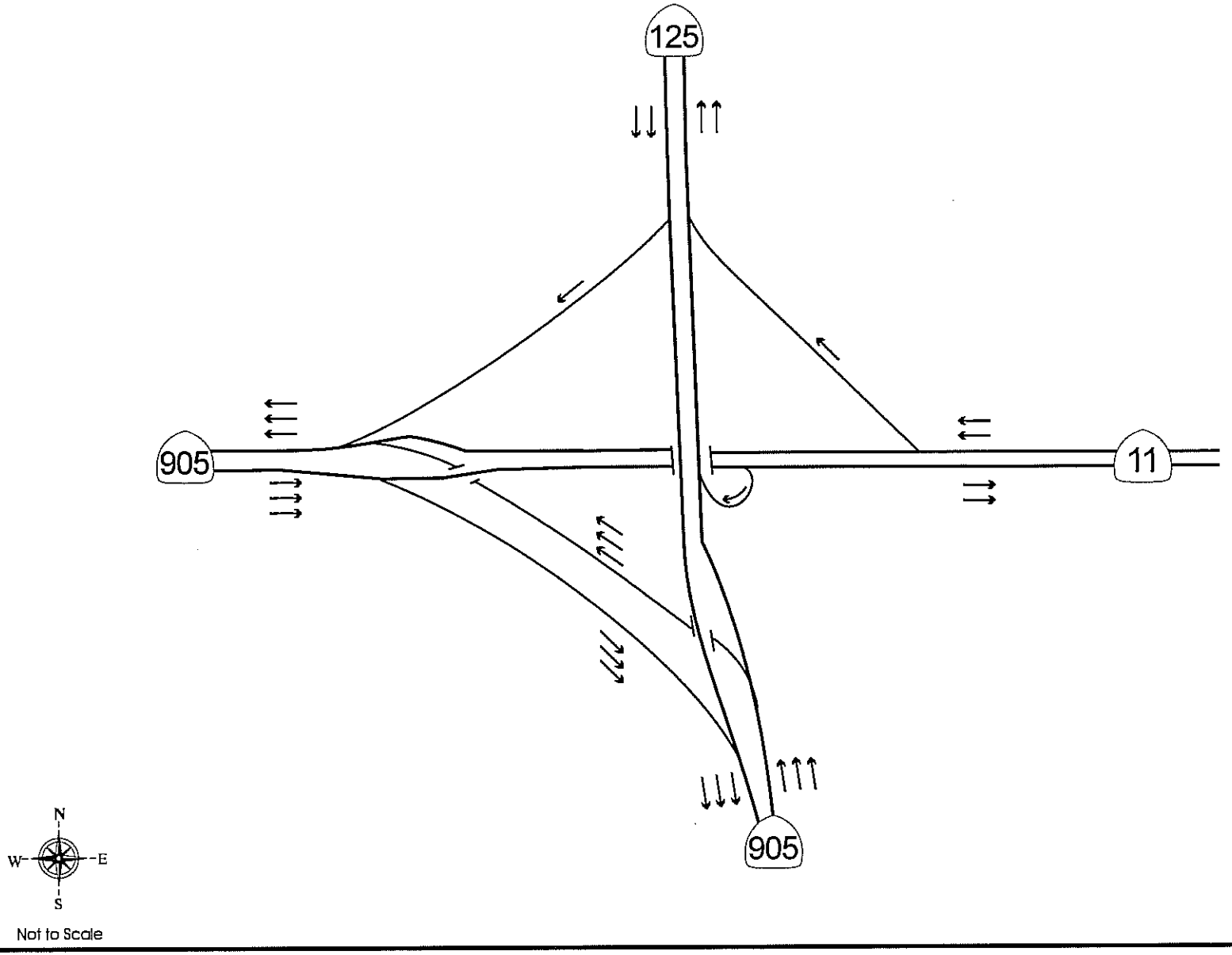


Horizon Year (2035) SR-11 Lane Geometry No Toll/No Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 5-31a

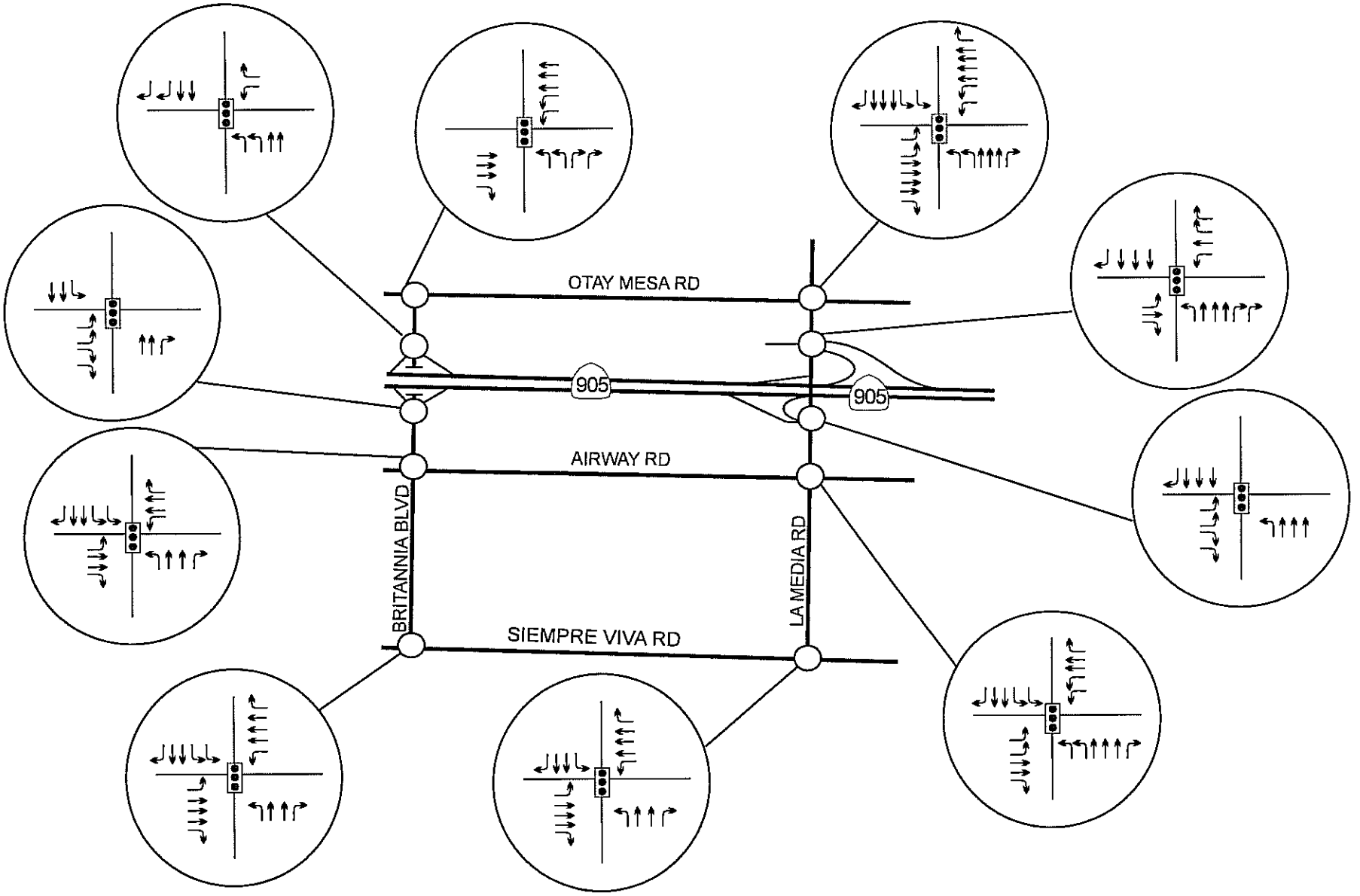


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
No Toll/No Interchange Design Variation

Legend

← Number of Lanes

Figure 5-31b

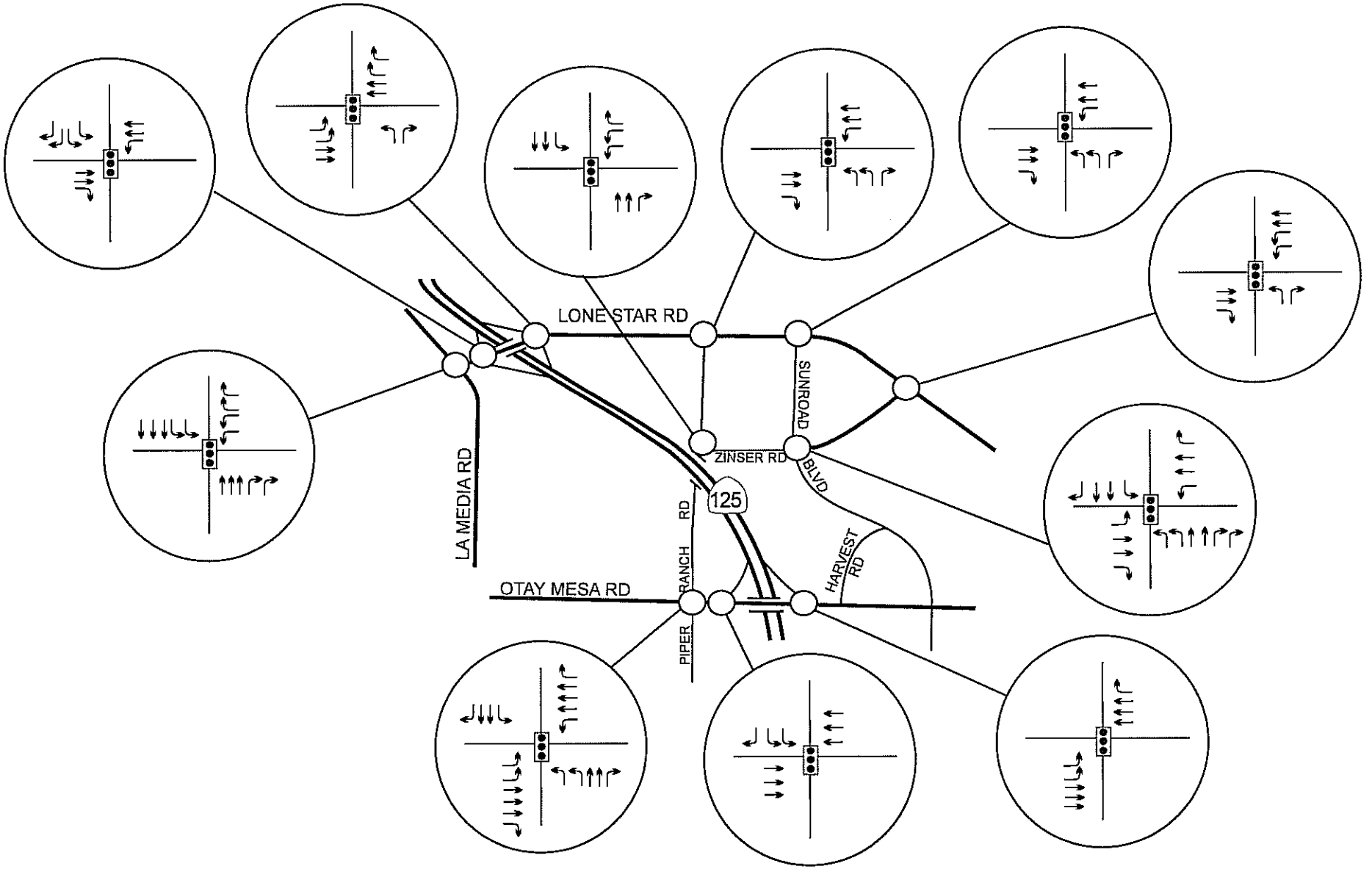


Horizon Year (2035) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-32a

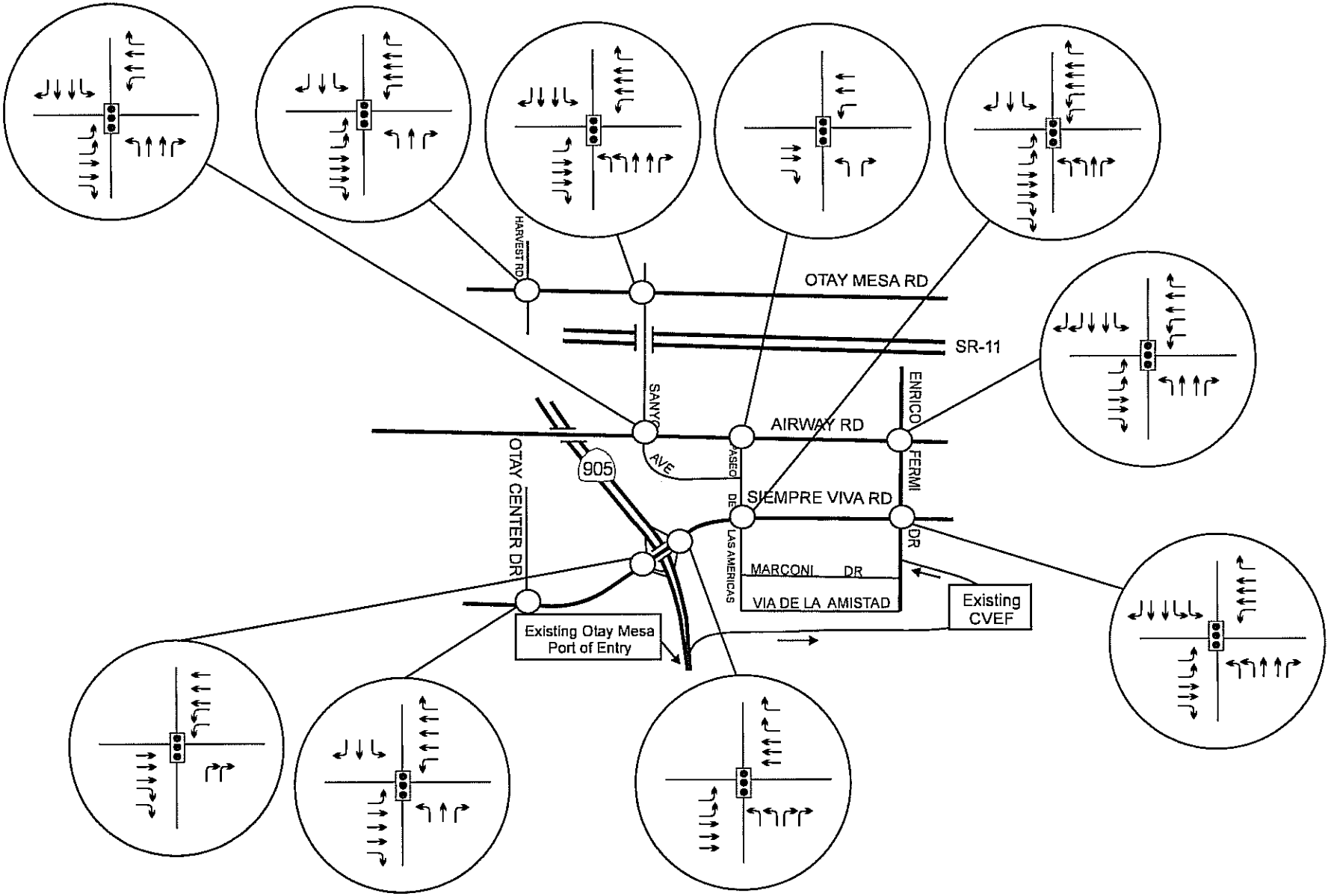


Horizon Year (2035) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-32b

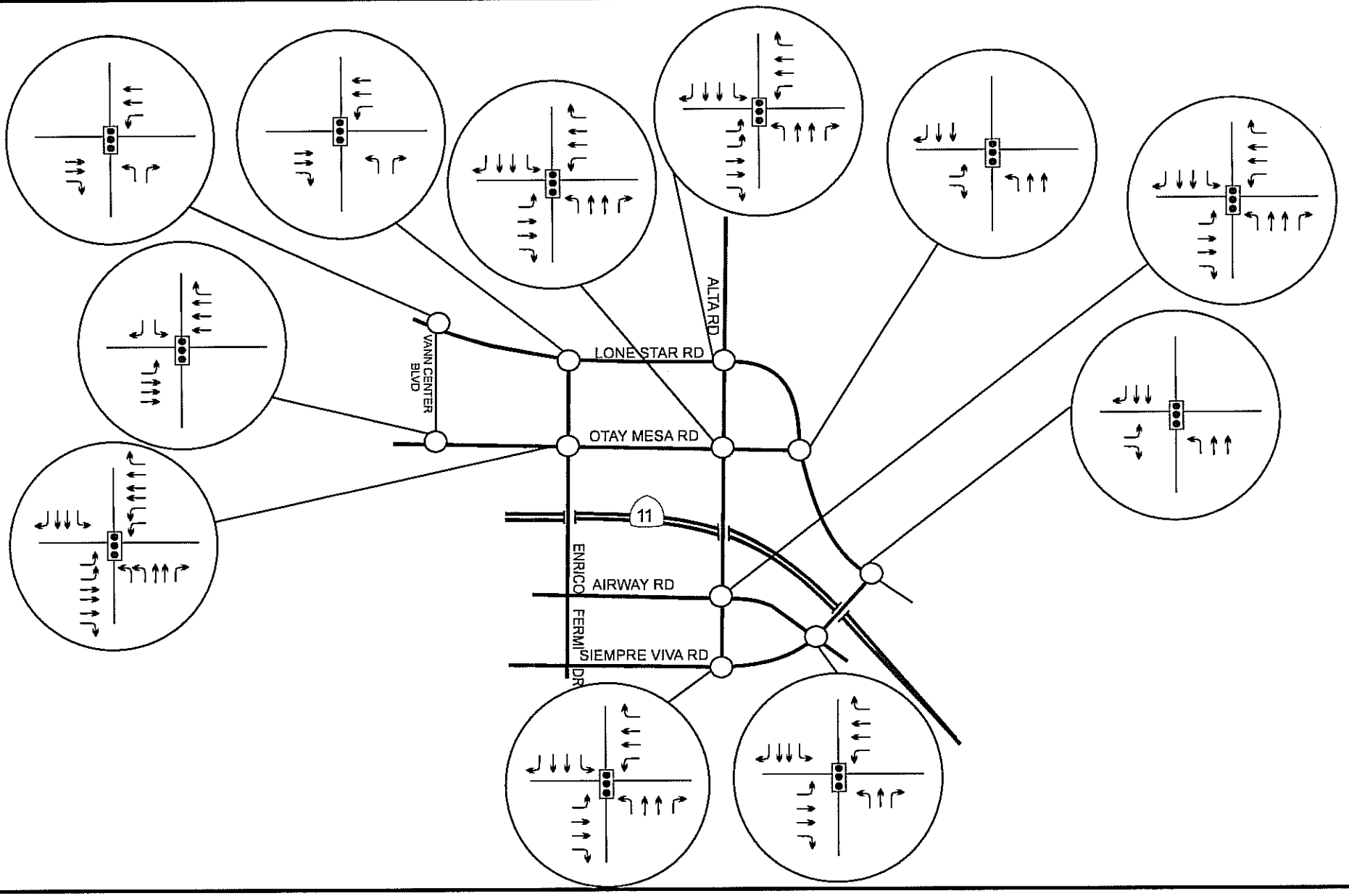


Horizon Year (2035) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-32c

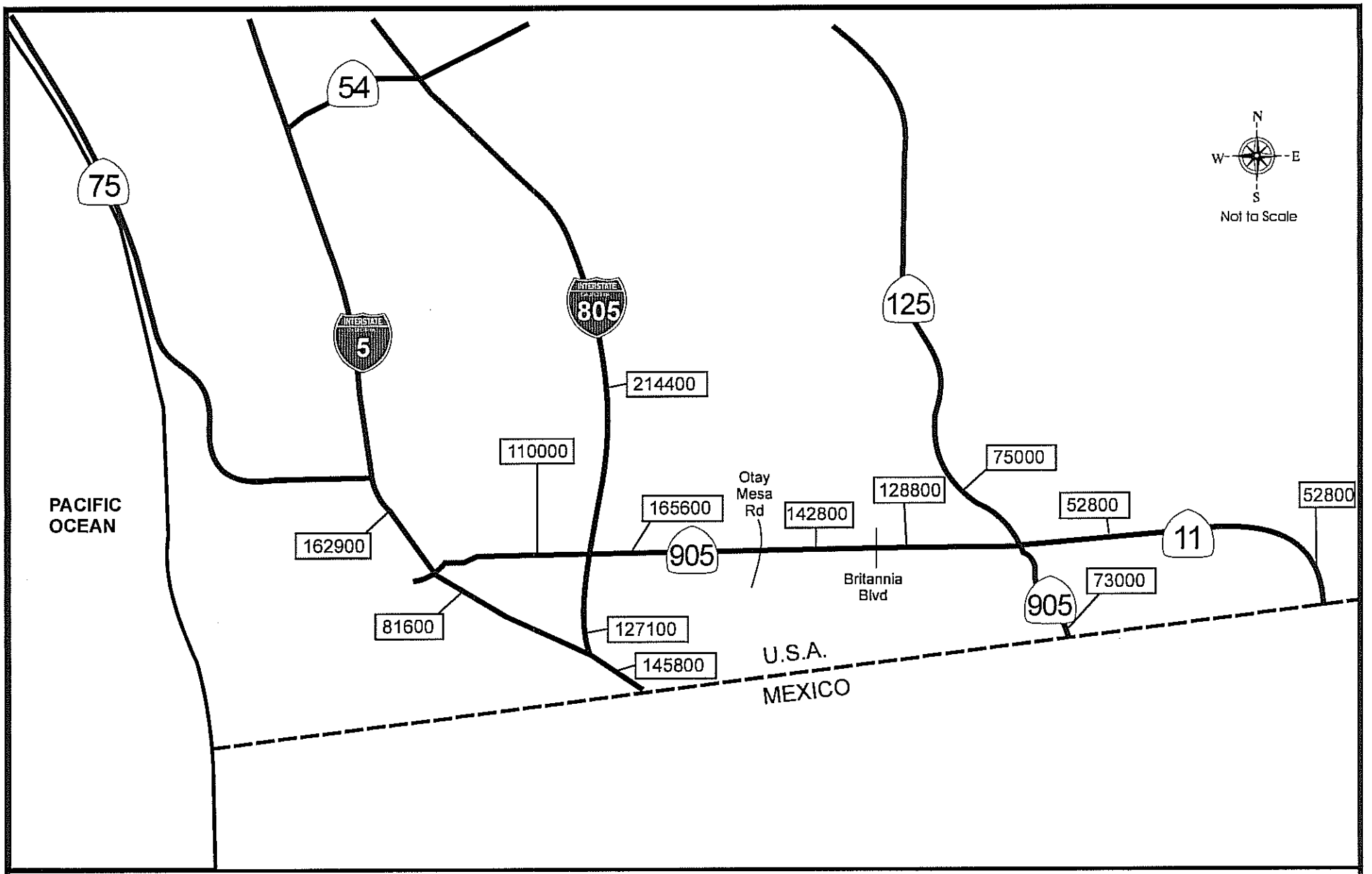


Horizon Year (2035) Intersection Lane Geometry - No Toll/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-32d



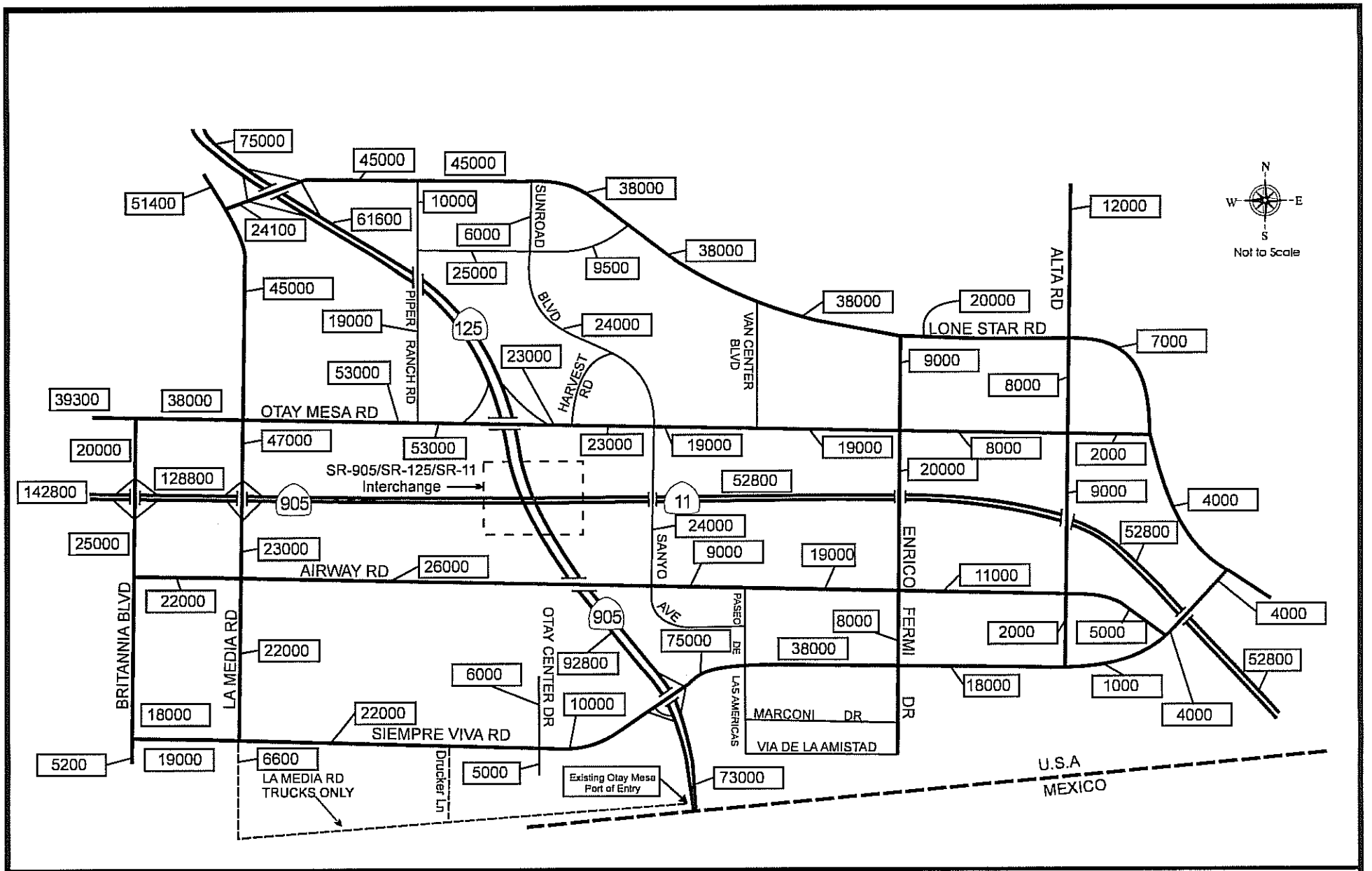
Horizon Year (2035) Average Daily Traffic - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-33a



Horizon Year (2035) Average Daily Traffic - No Toll / No Interchange Design Variation

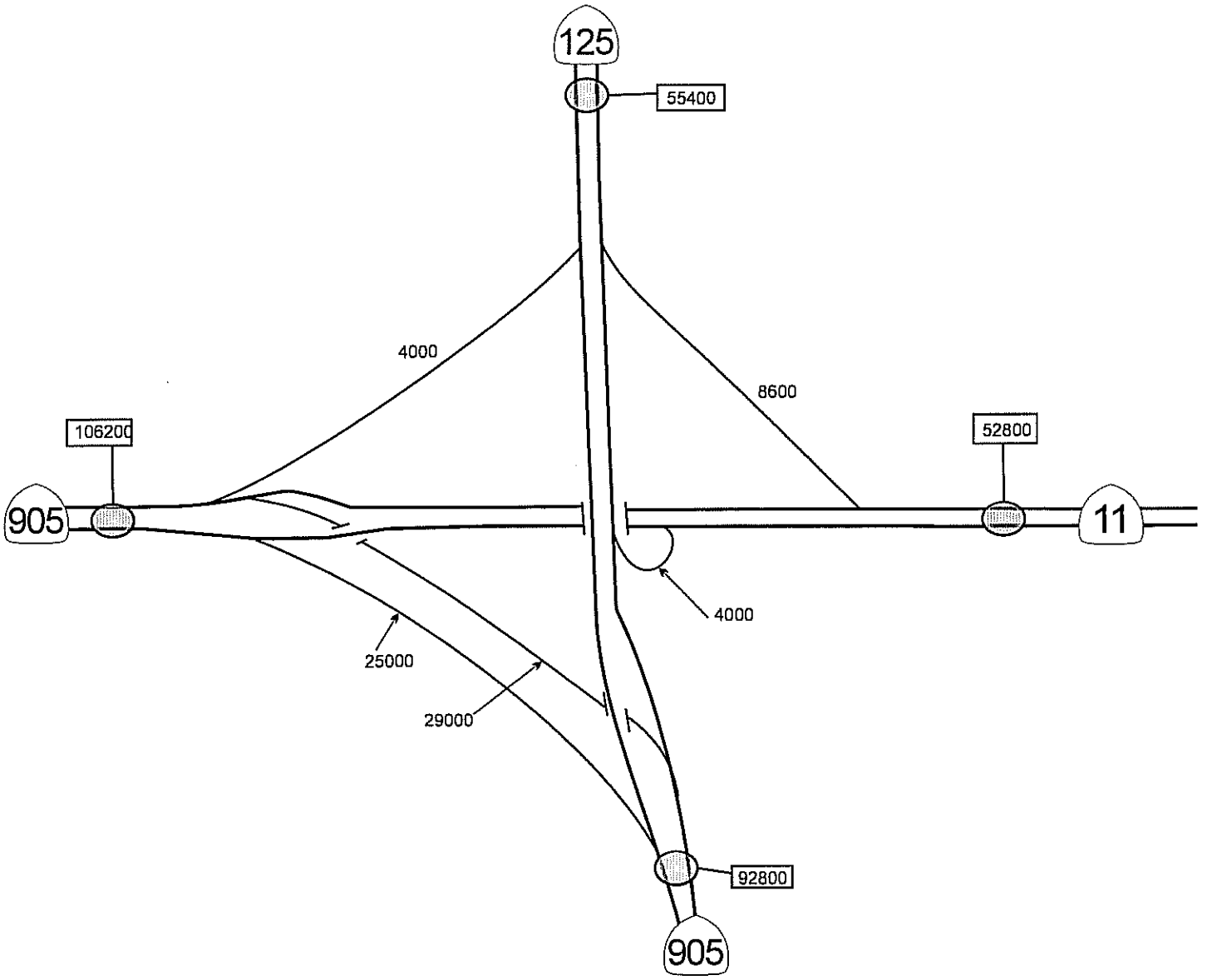
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-33b

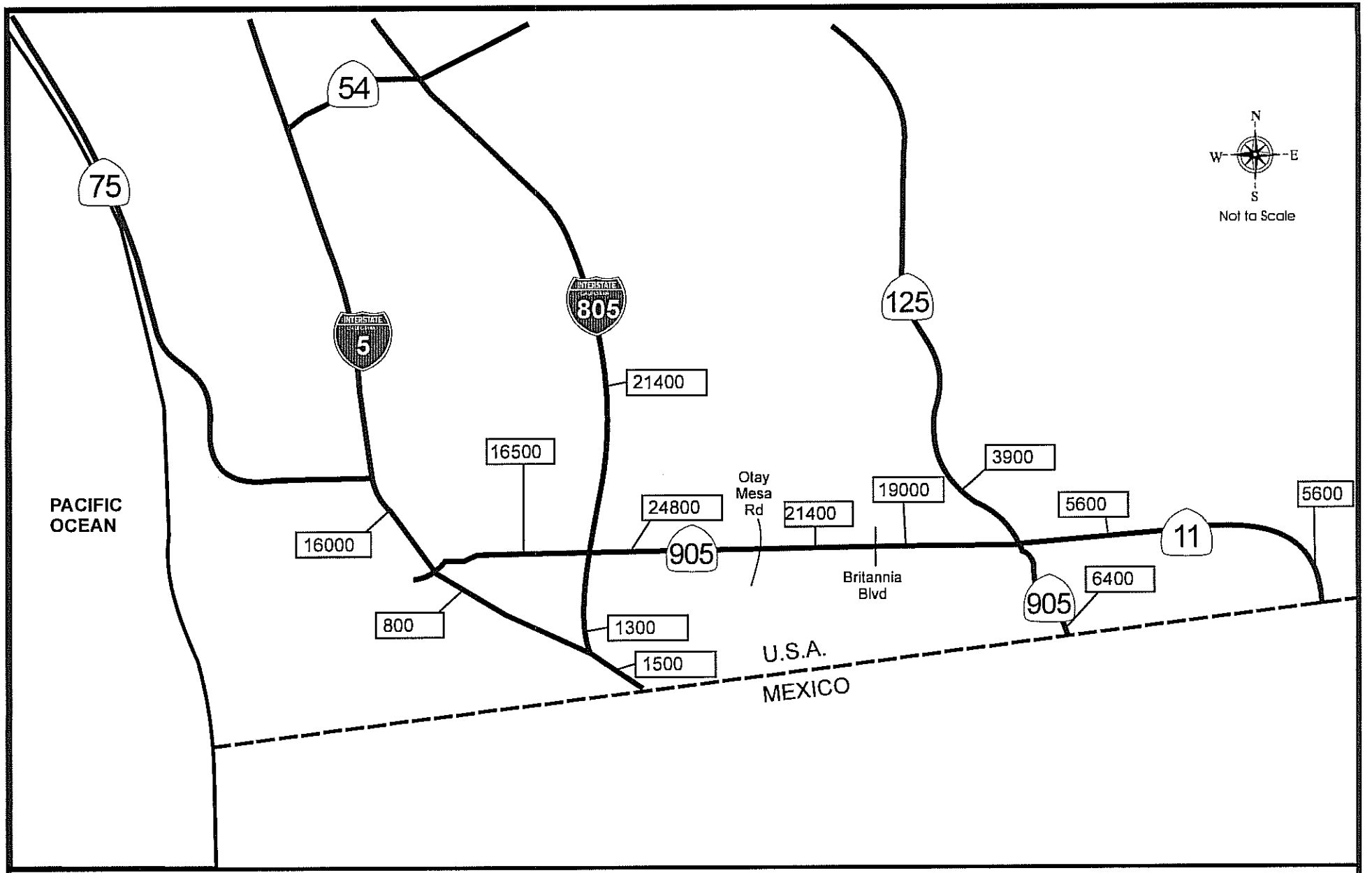


Horizon Year (2035) Average Daily Traffic - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-33c



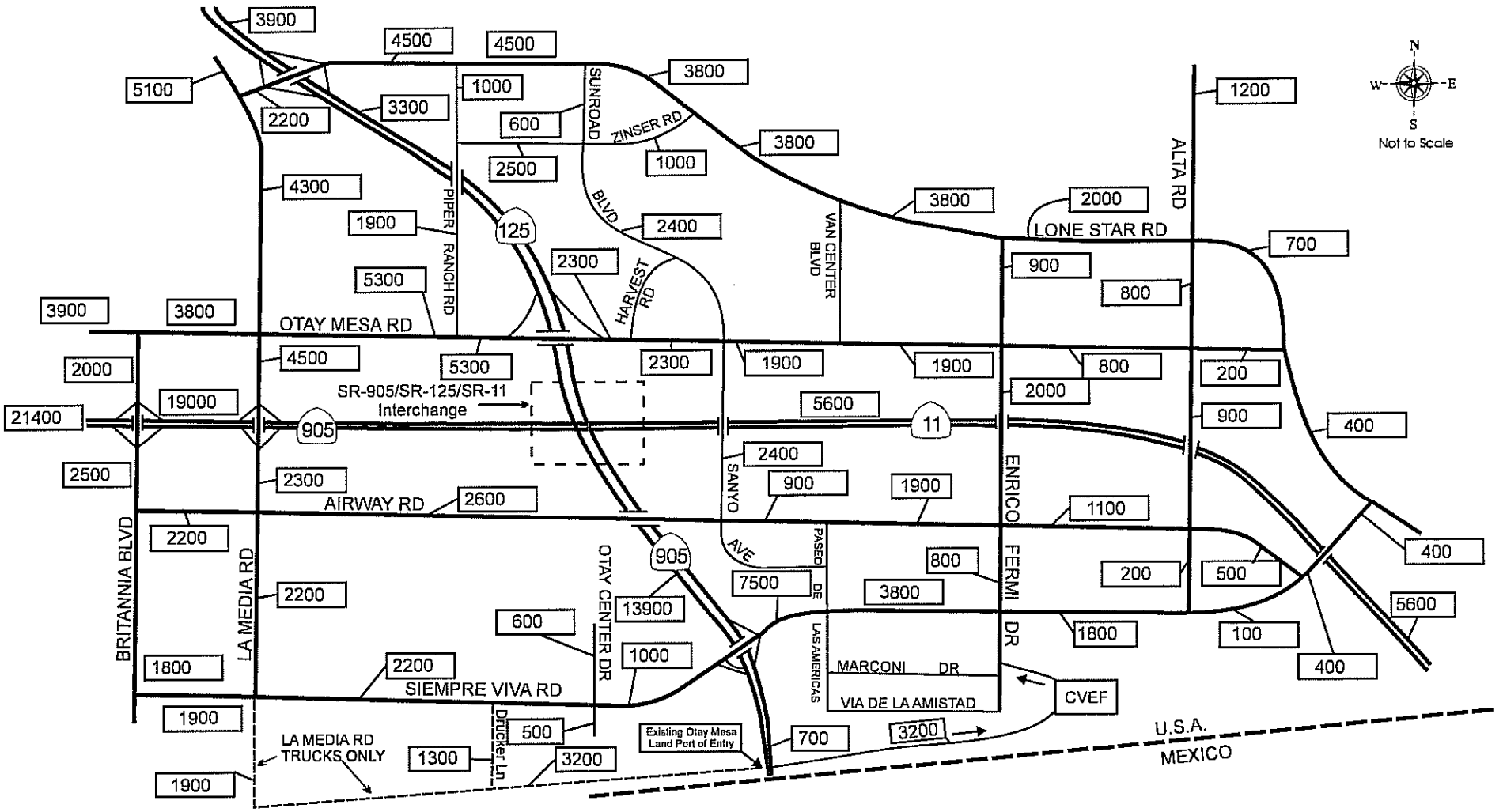
Horizon Year (2035) Daily Truck Trips - No Toll / No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-34a



Horizon Year (2035) Daily Truck Trips - No Toll / No Interchange Design Variation

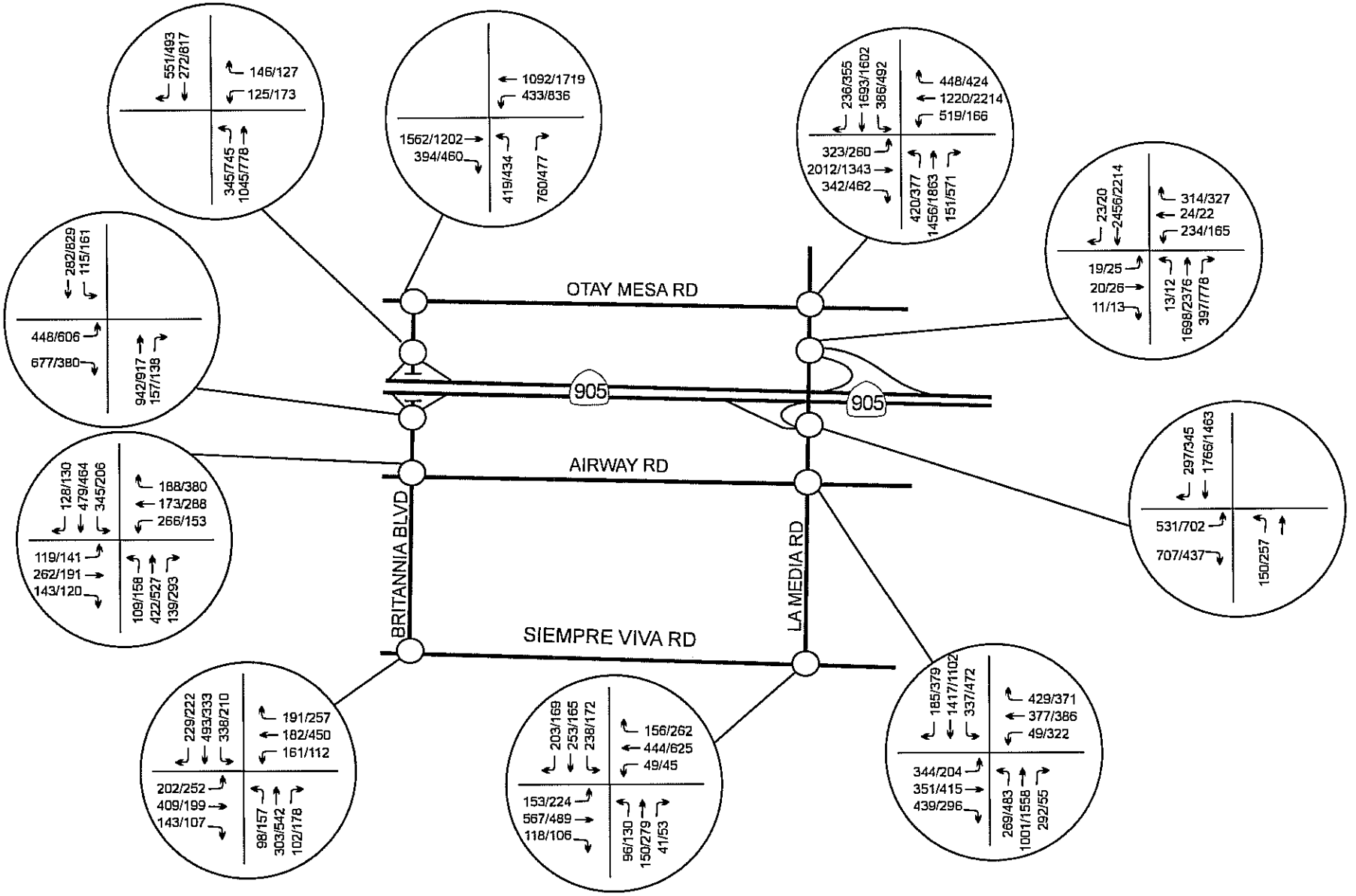
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-34b

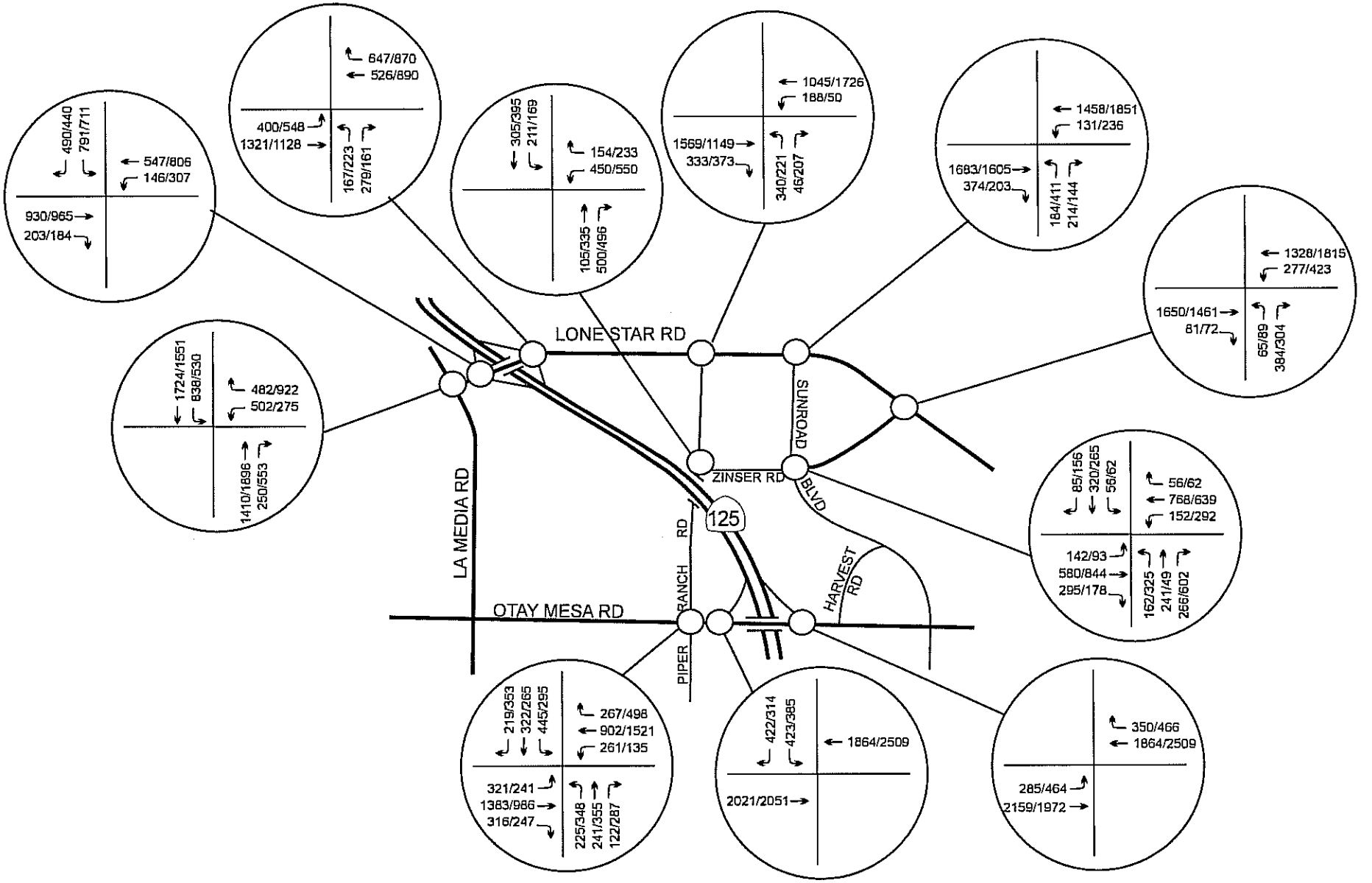


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-35a

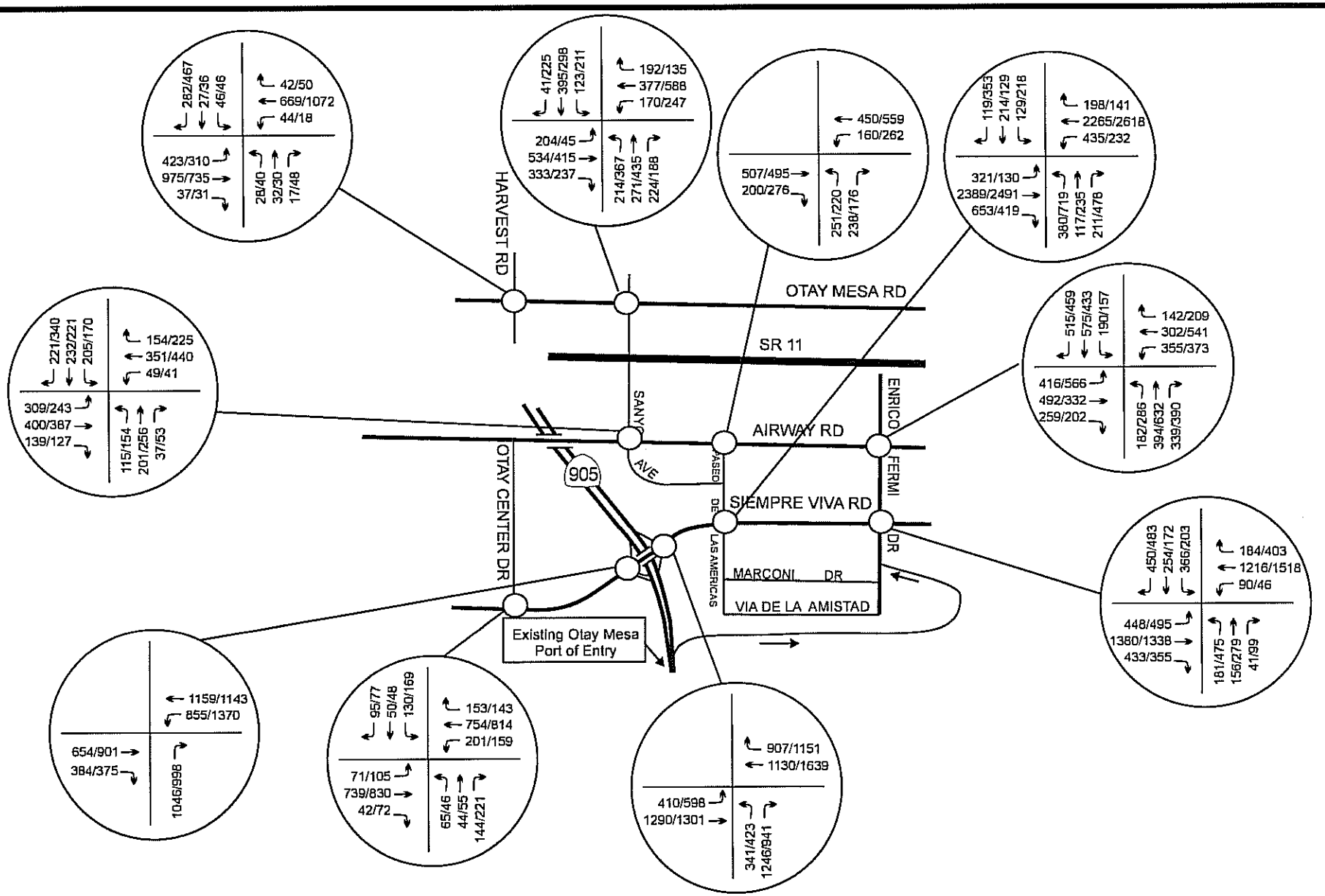


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-35b

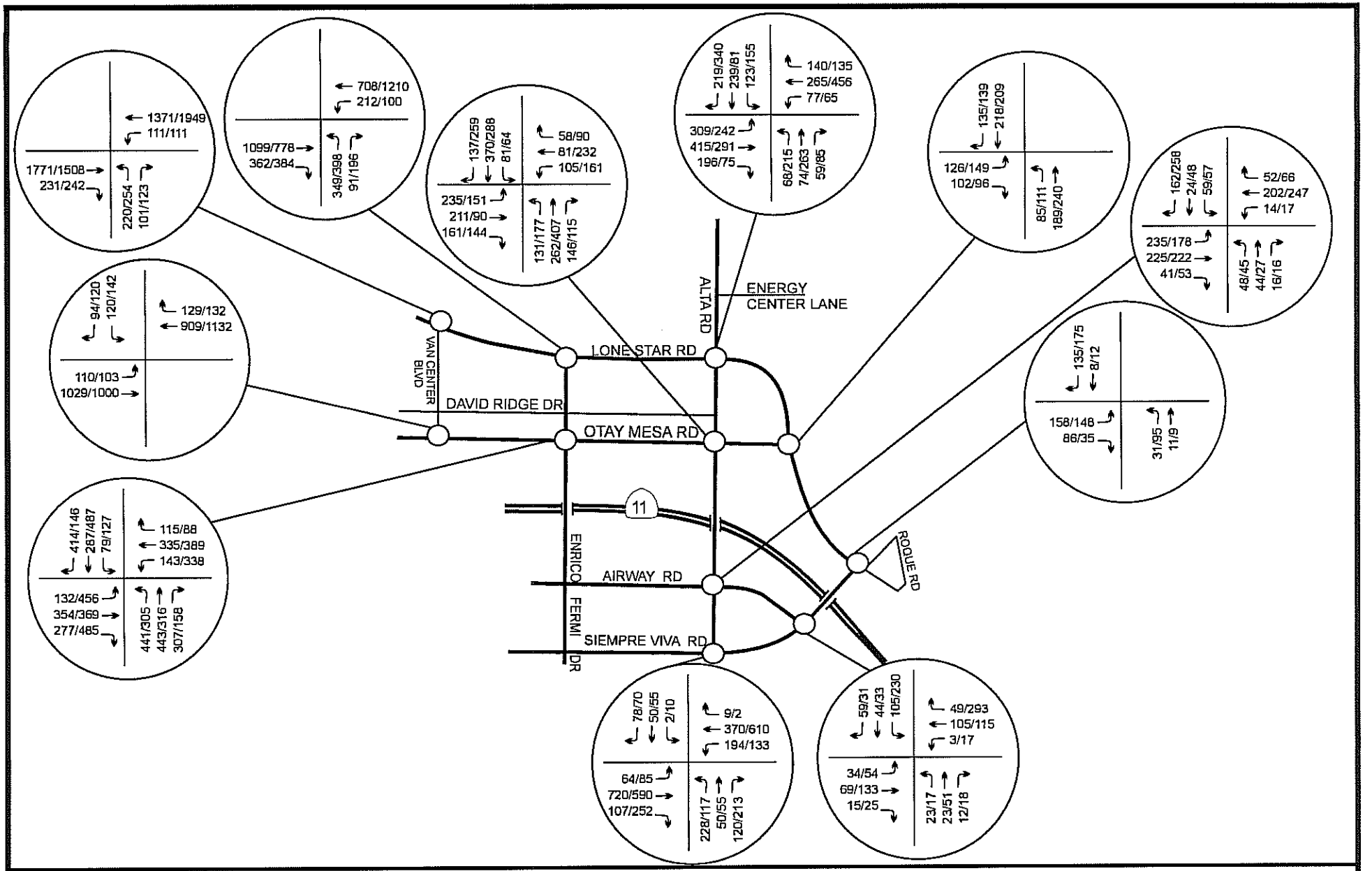


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-35c

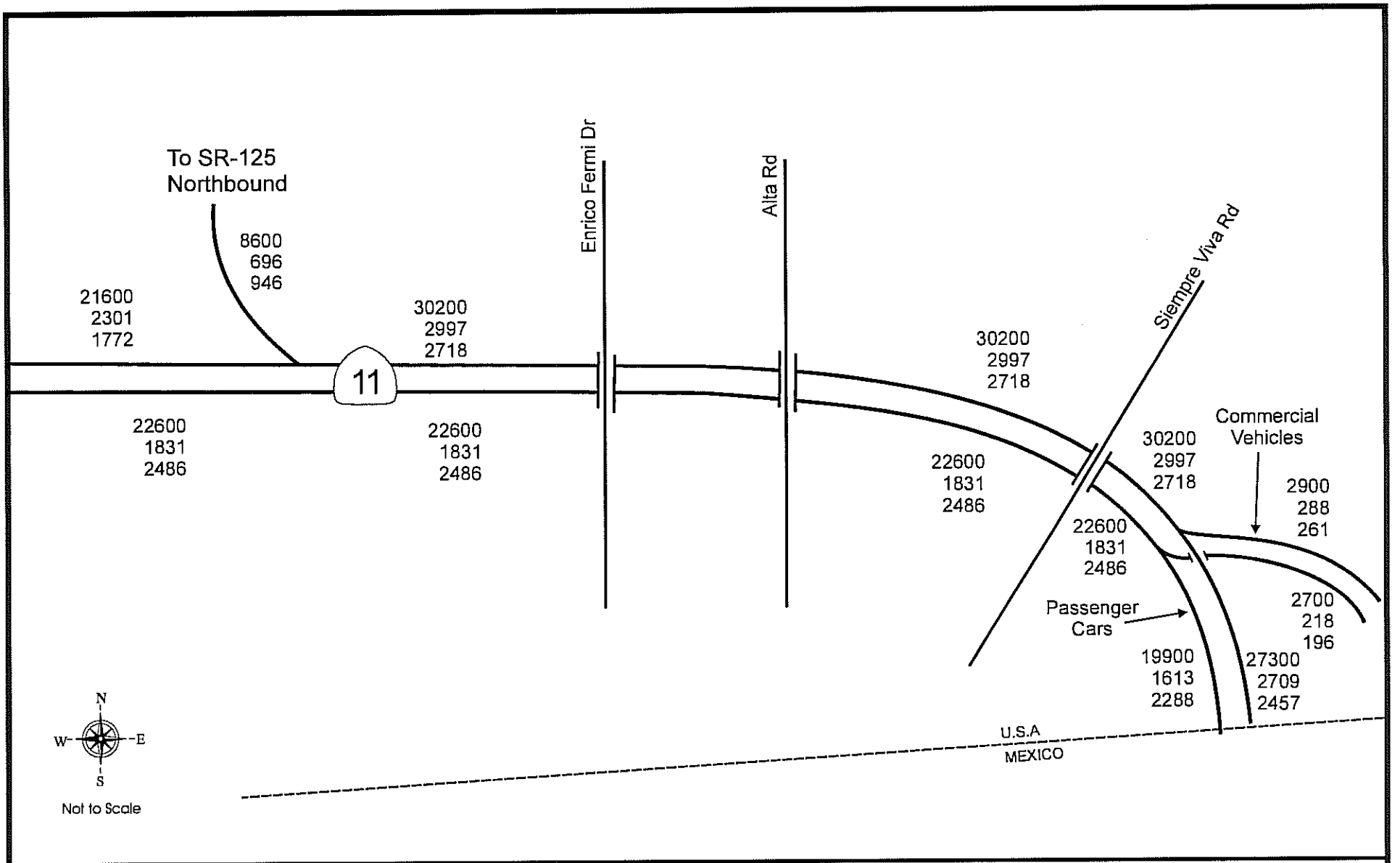


Horizon Year (2035) AM/PM Peak Hour Traffic – Intersections – No Toll/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-35d

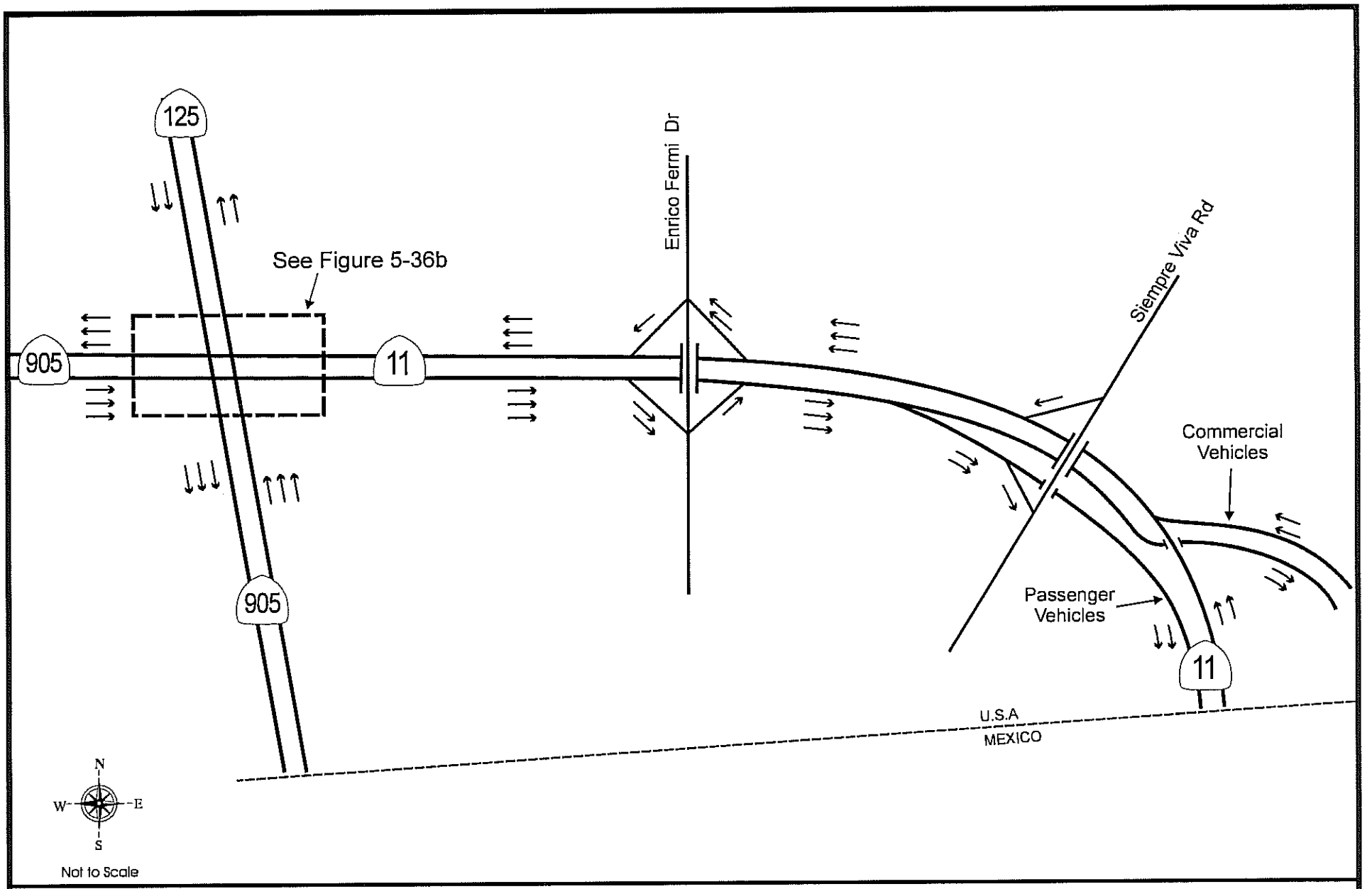


Horizon Year (2035) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - No Toll/No Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-35e

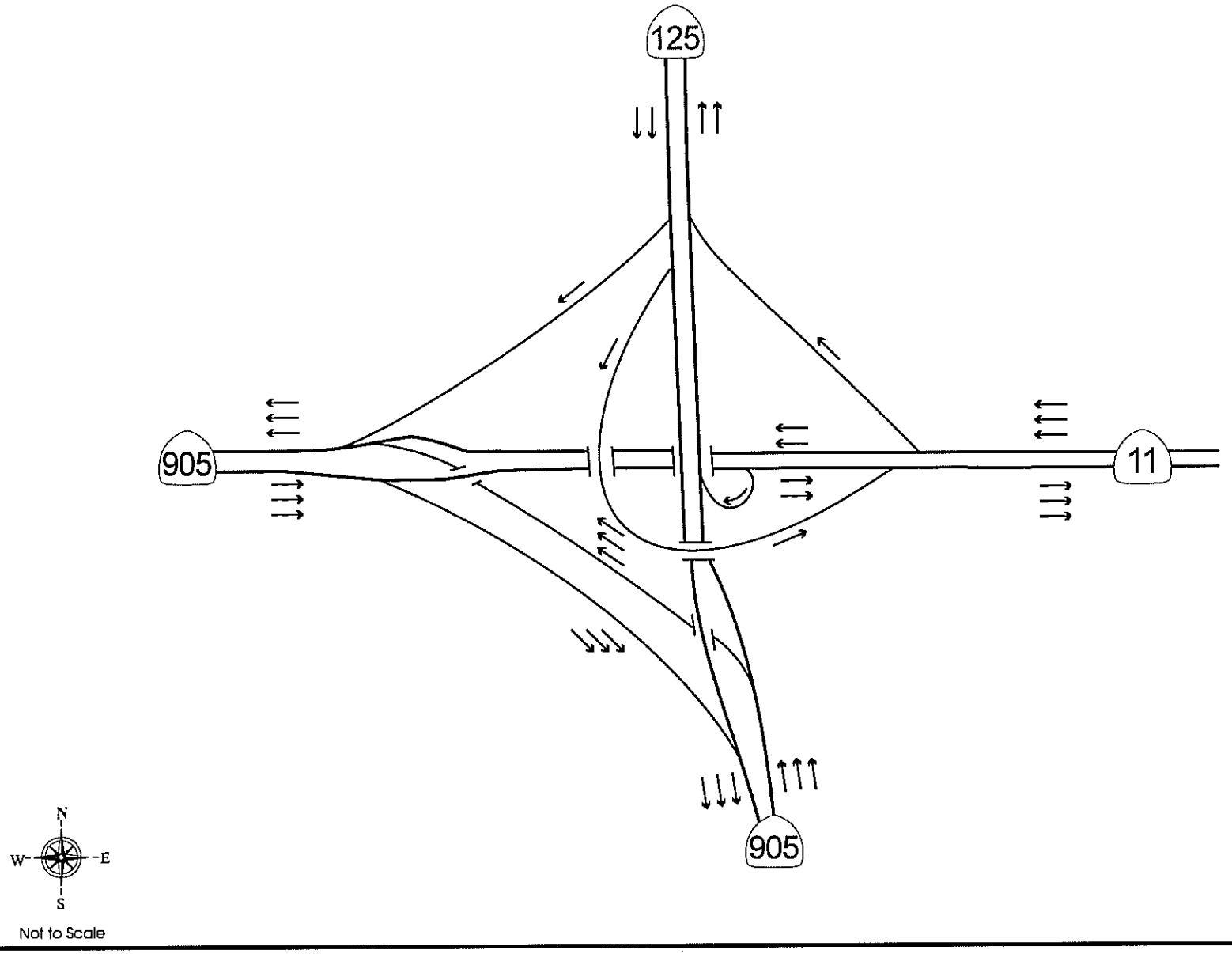


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 5-36a

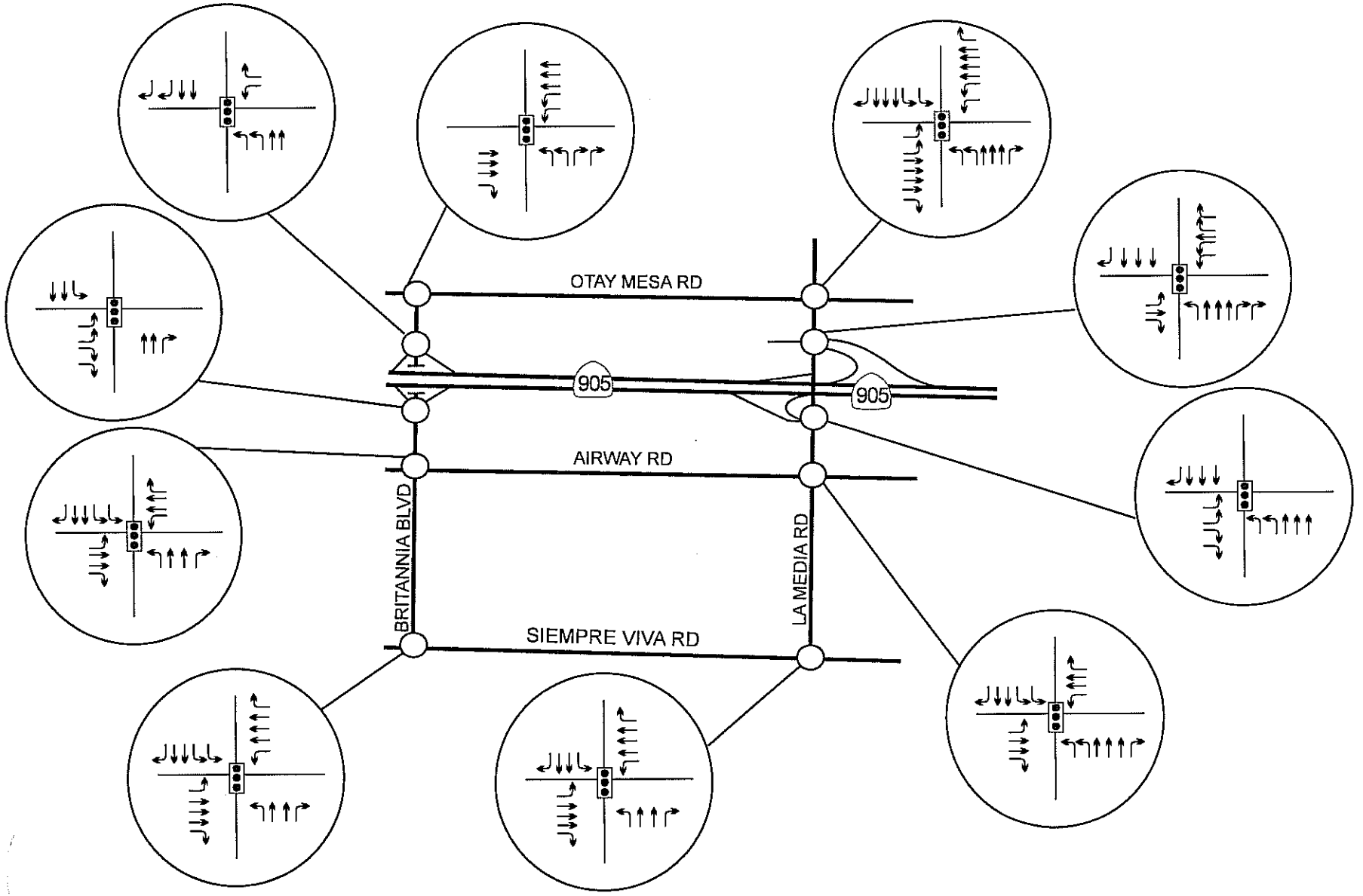


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 5-36b

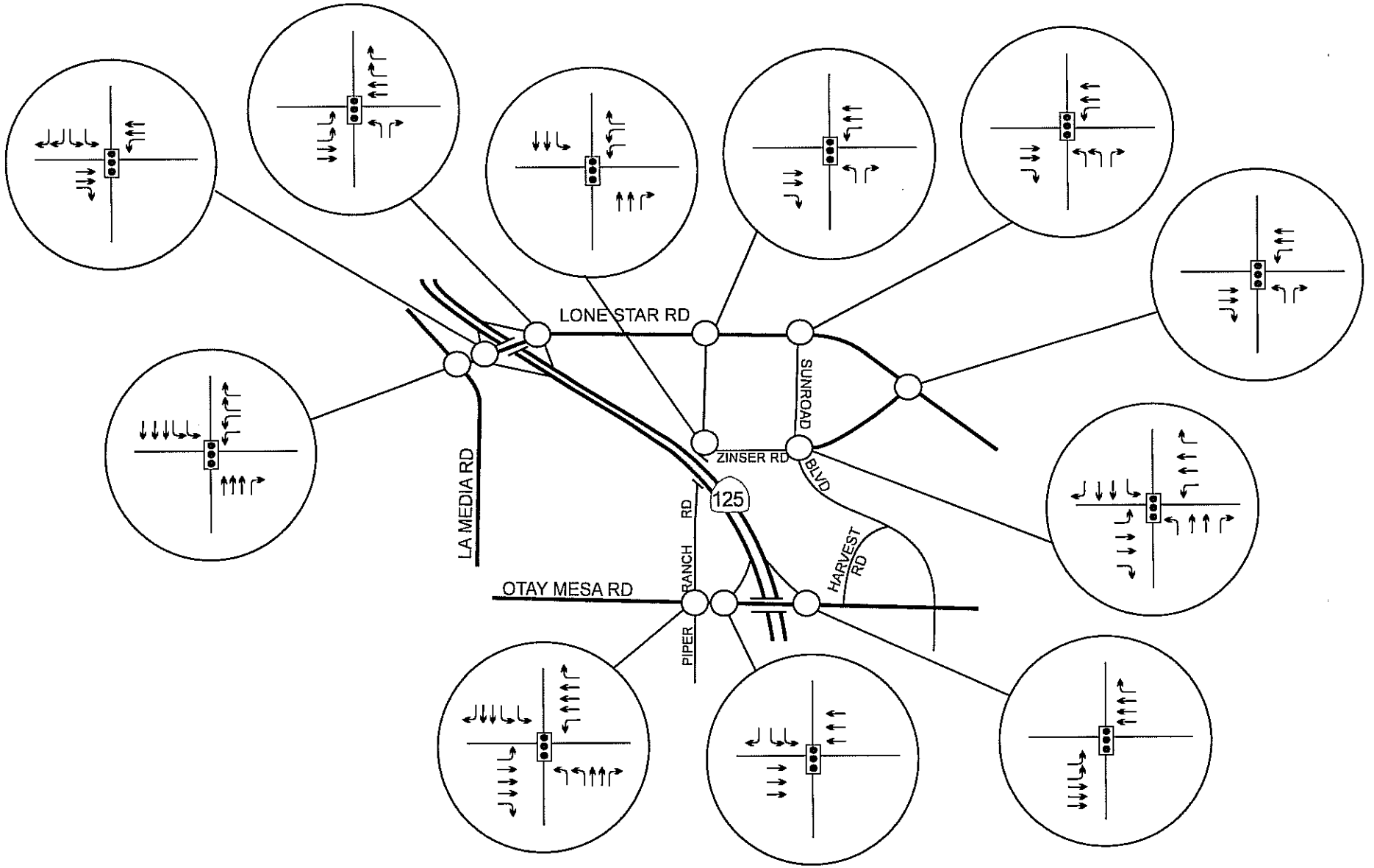


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-37a

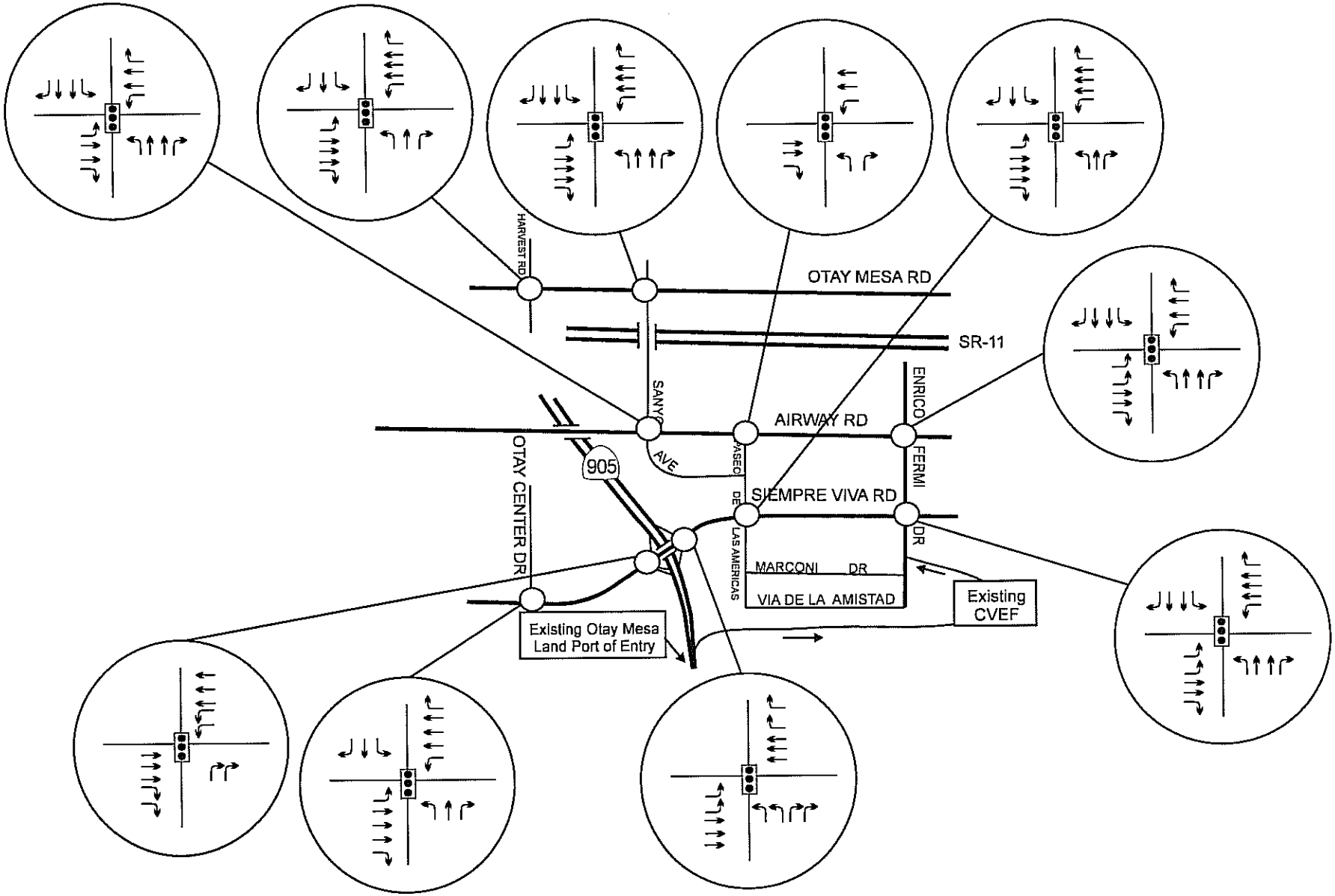


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-37b

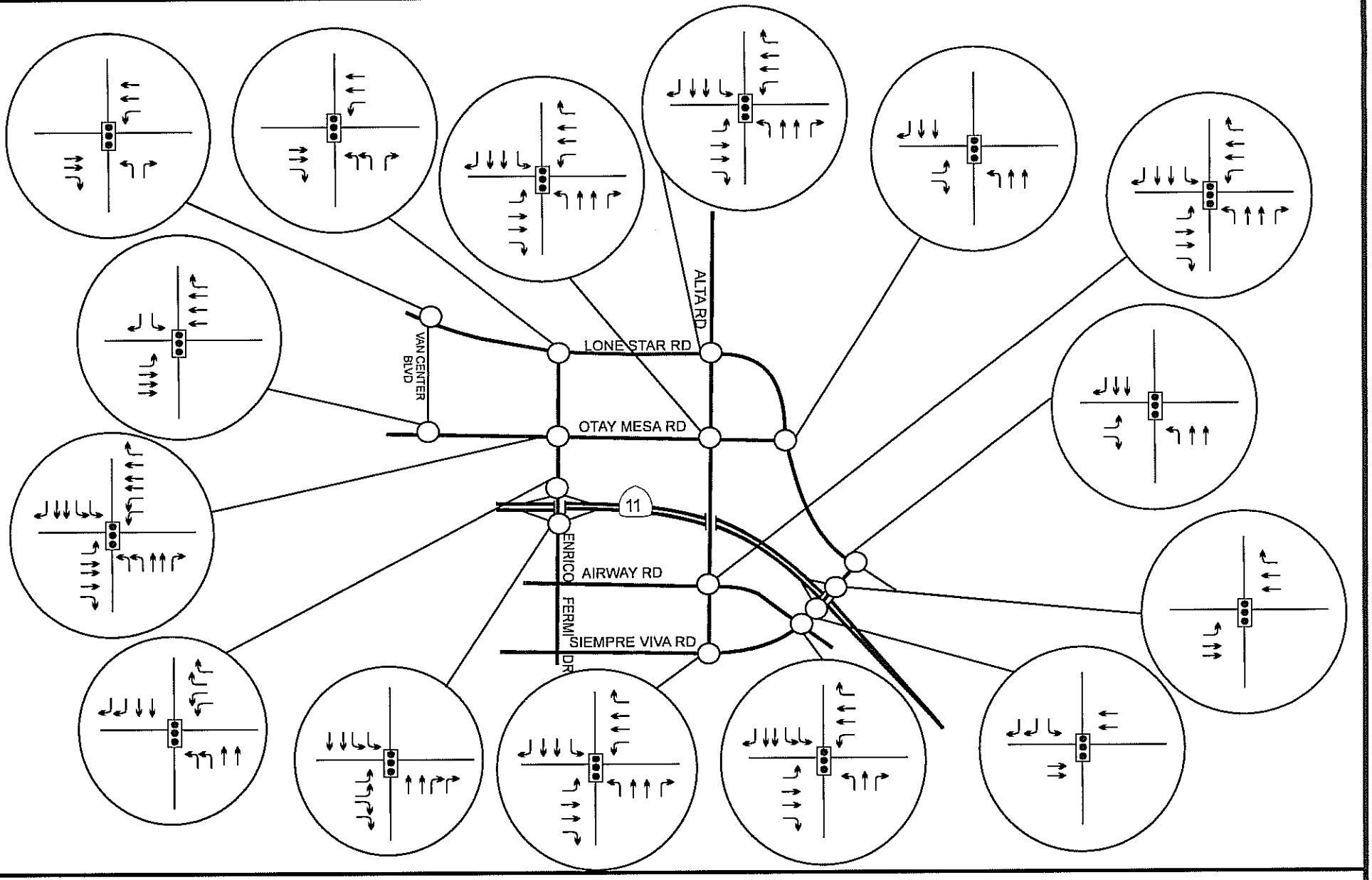


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-37c

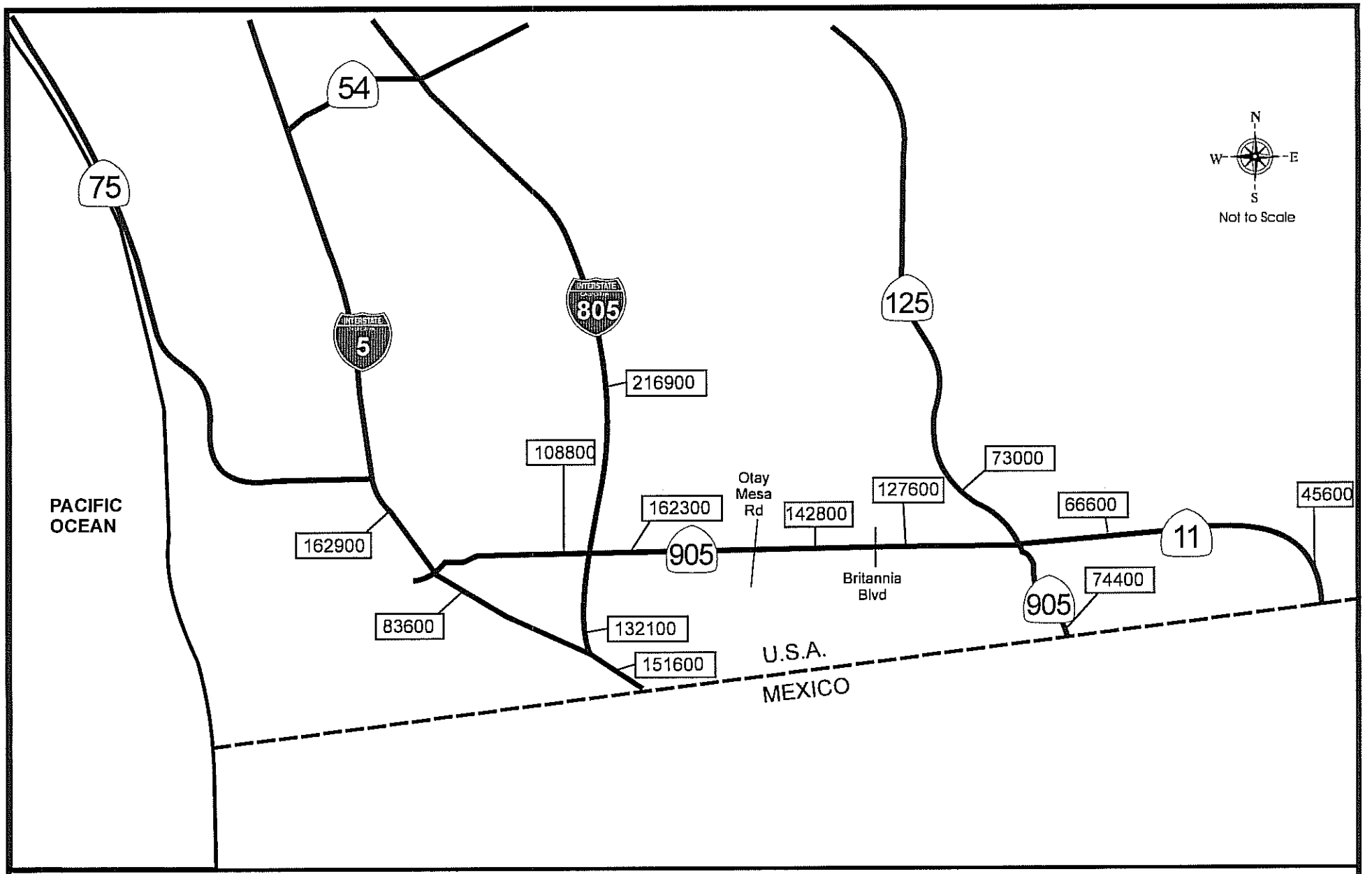


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-37d



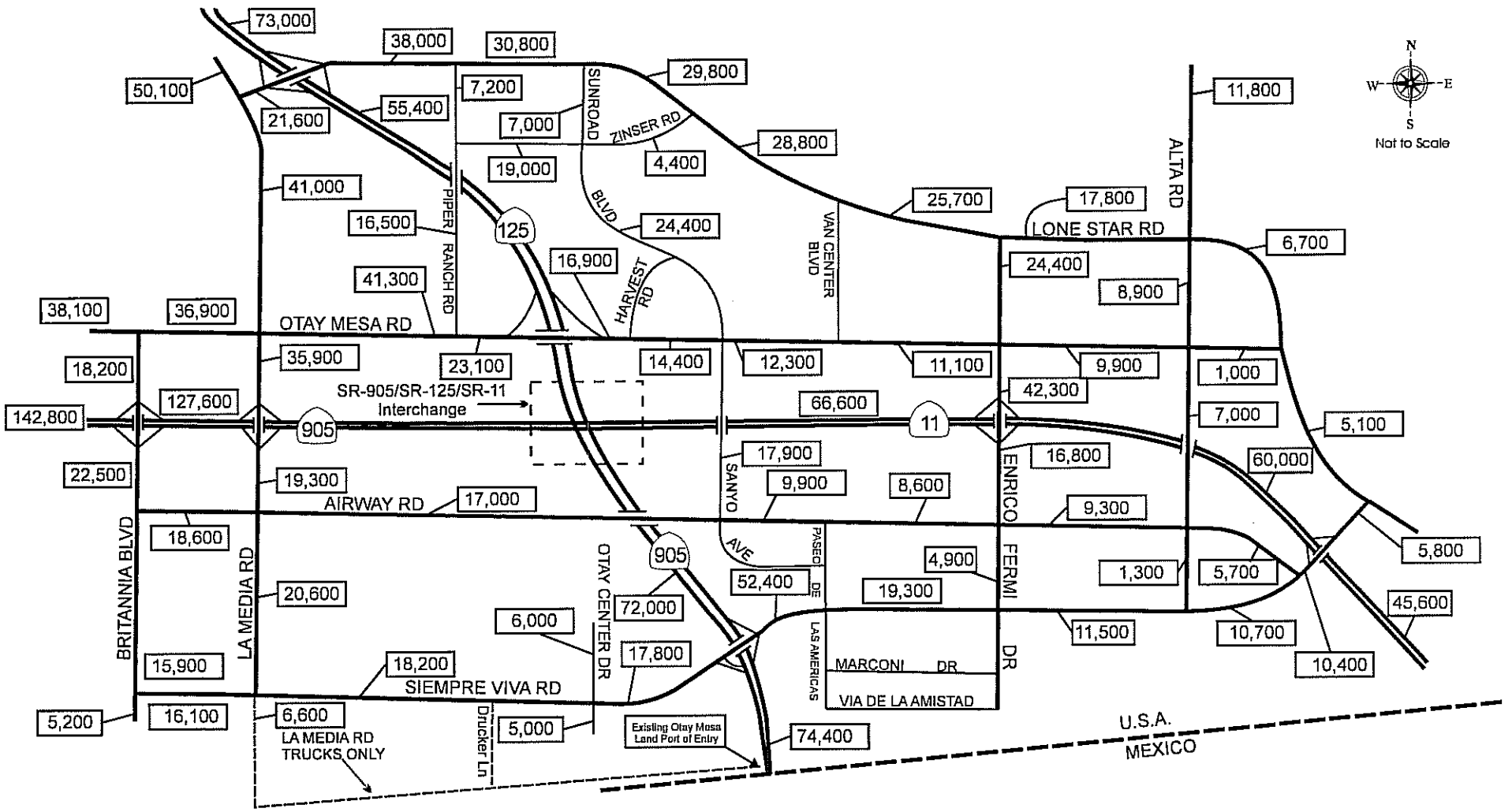
Horizon Year (2035) Average Daily Traffic - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-38a



Horizon Year (2035) Average Daily Traffic - SR-125 Connector/Two Interchange Design Variation

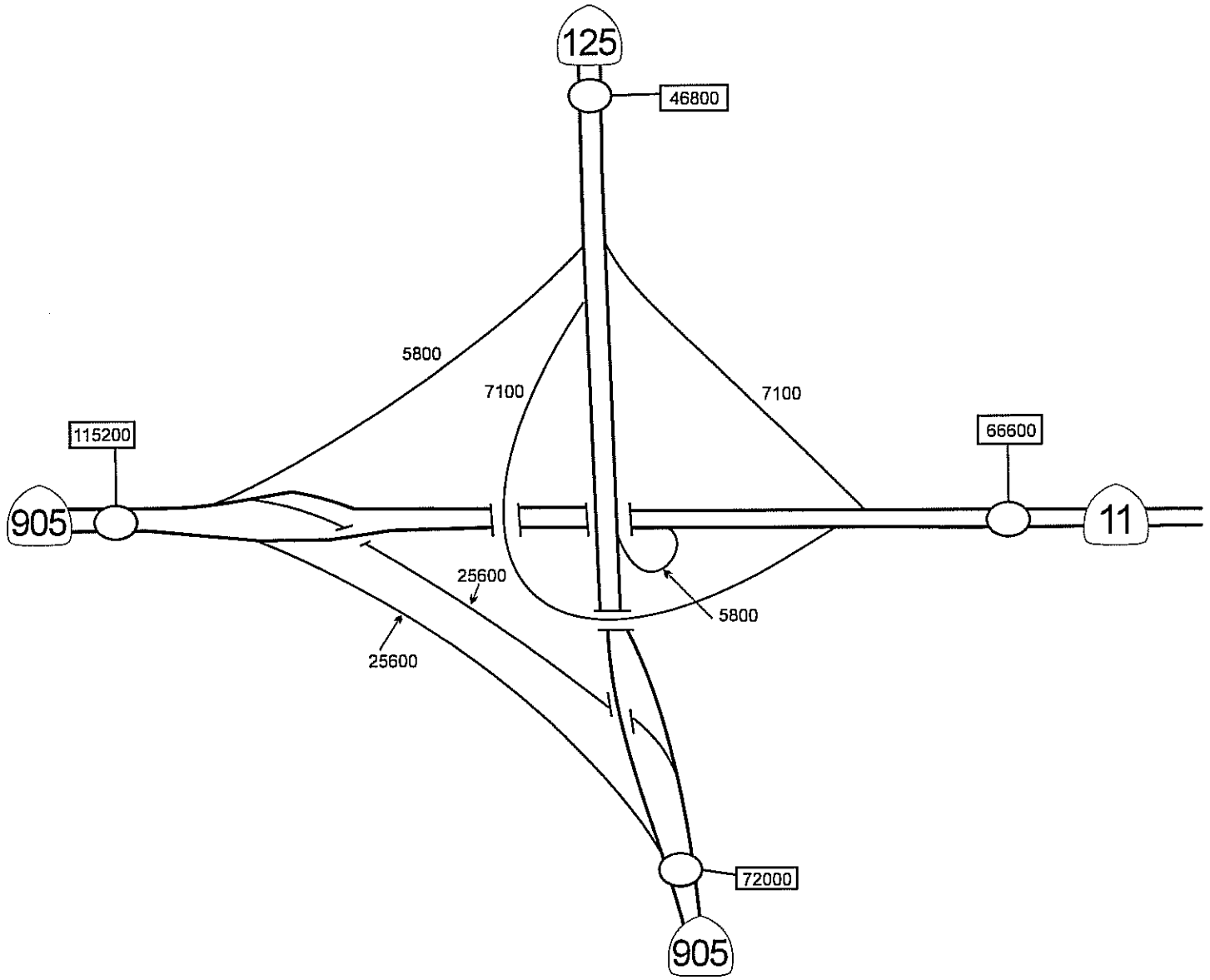
Legend

Existing or Proposed Freeway/Tollway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-38b

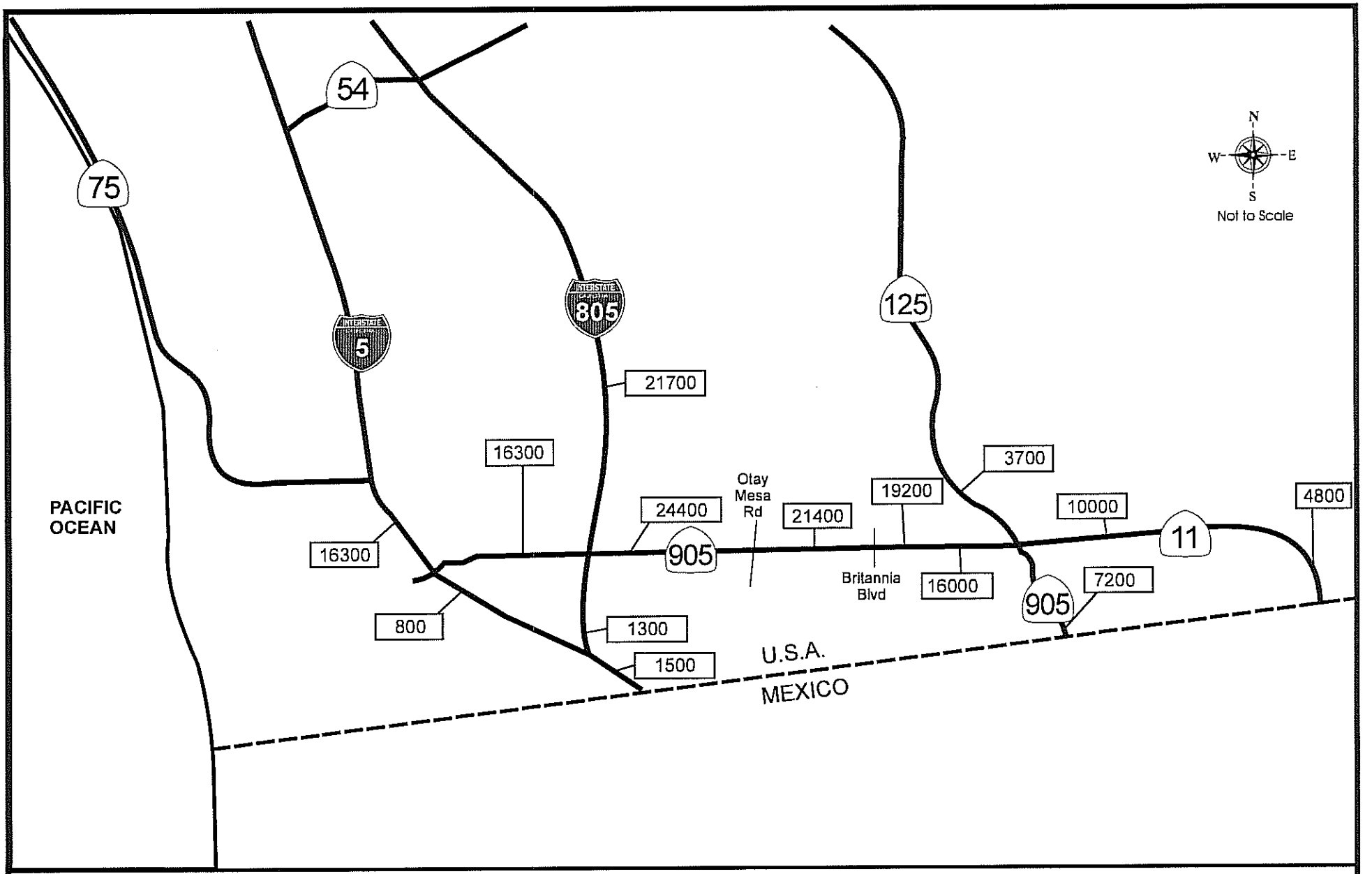


Horizon Year (2035) Average Daily Traffic -
SR-125 Connector/Two Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-38c



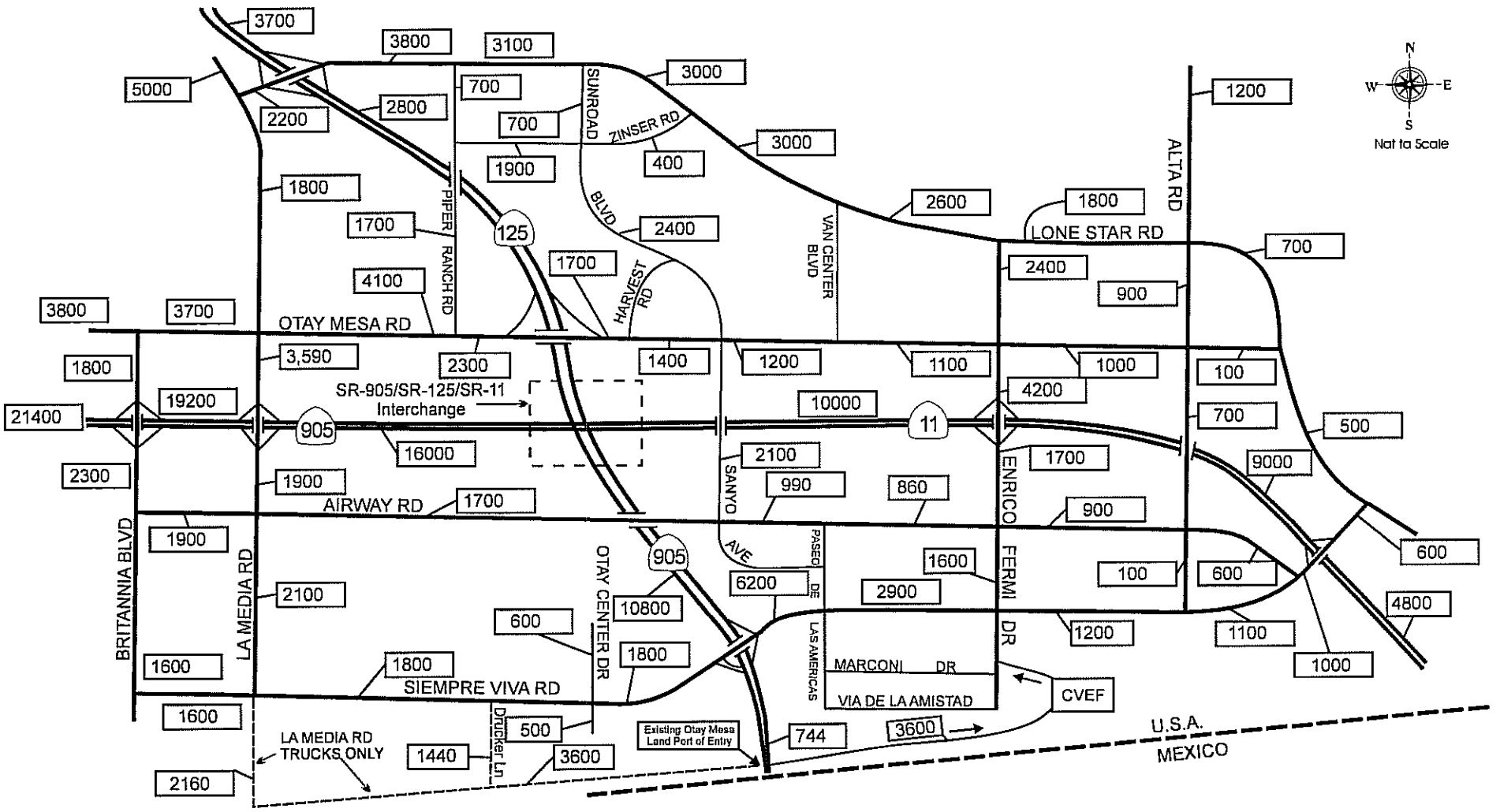
Horizon Year (2035) Daily Truck Trips -
SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-39a



Horizon Year (2035) Daily Truck Trips - SR-125 Connector/Two Interchange Design Variation

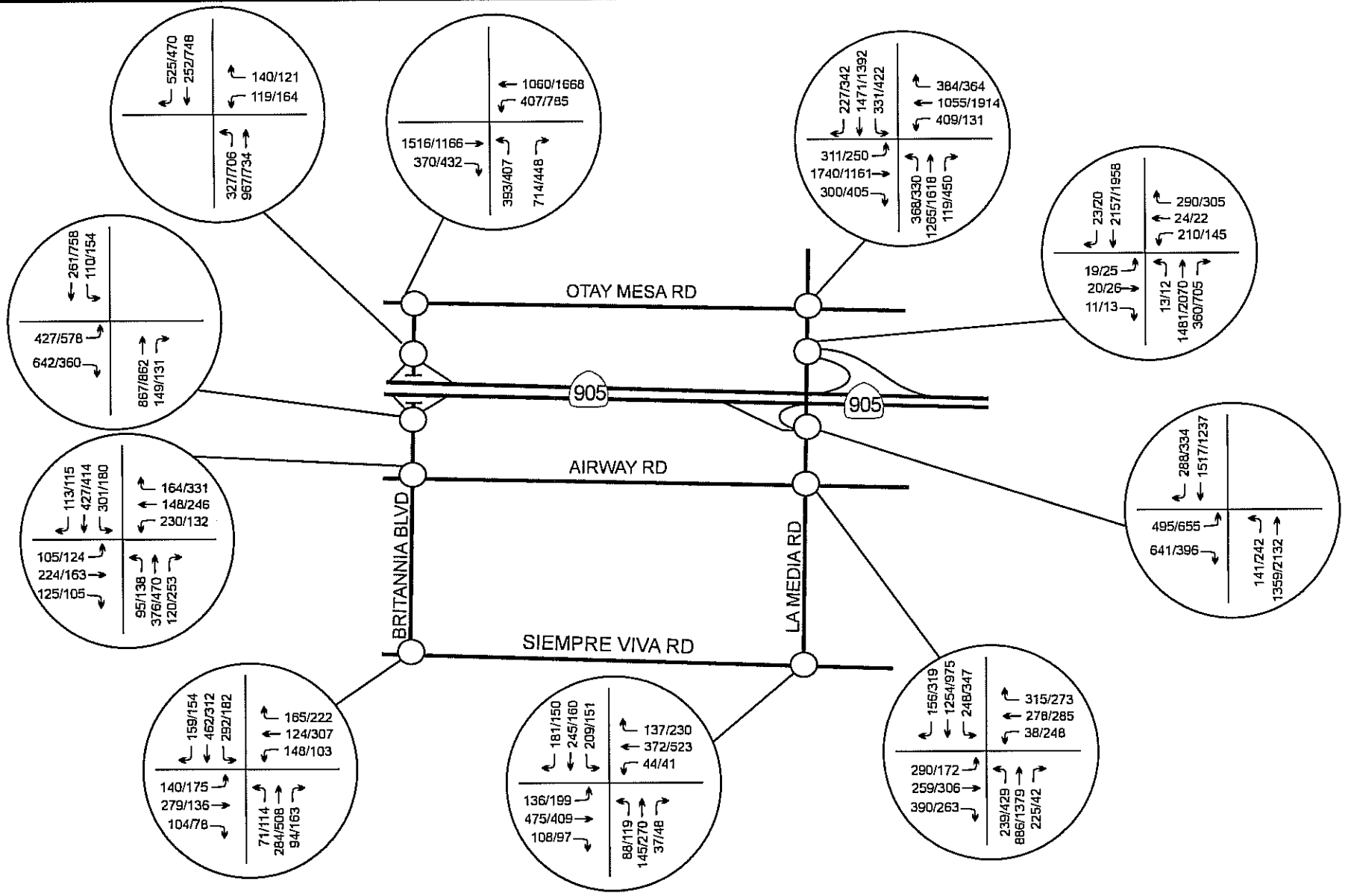
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-39b

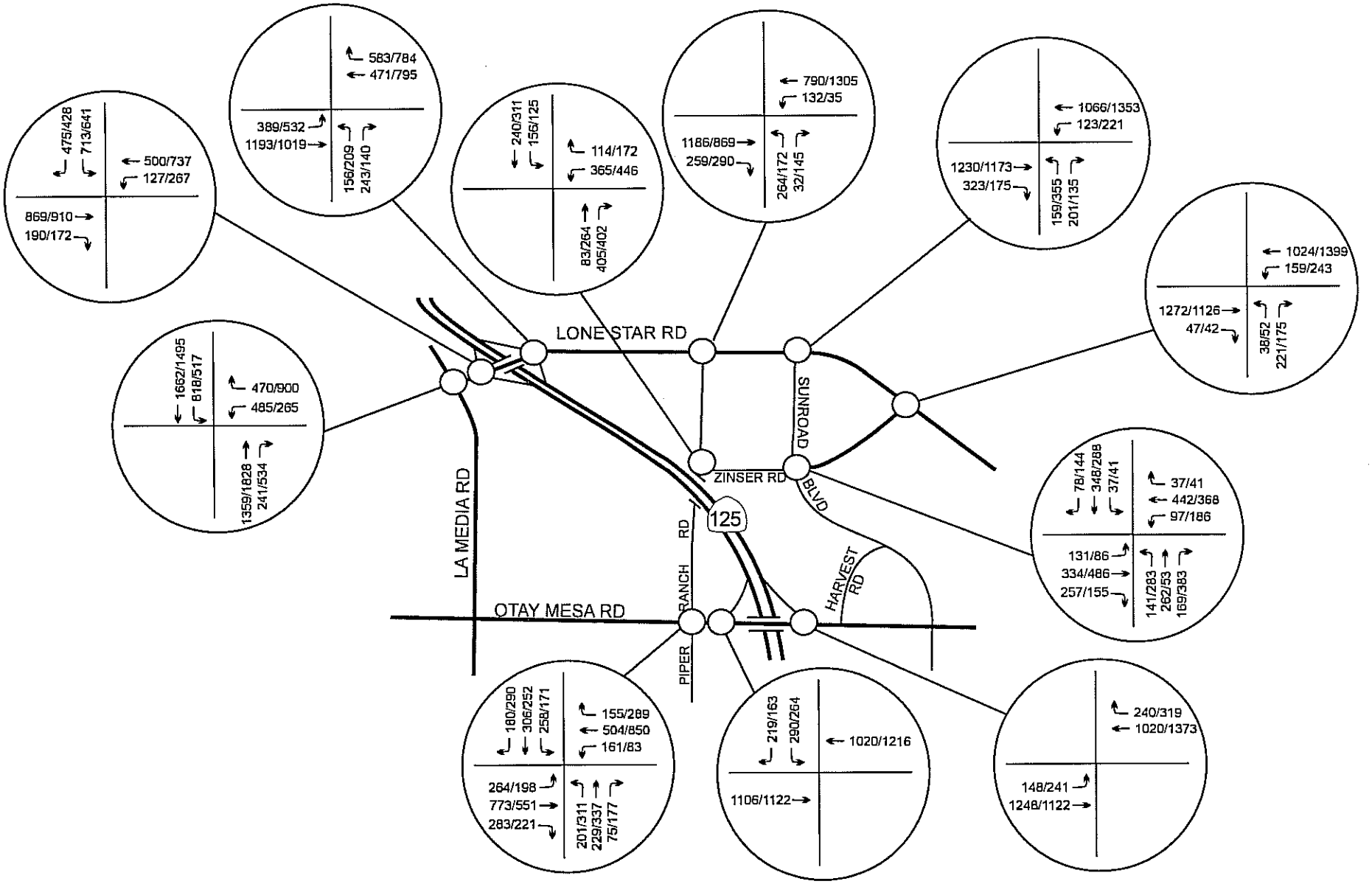


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-40a

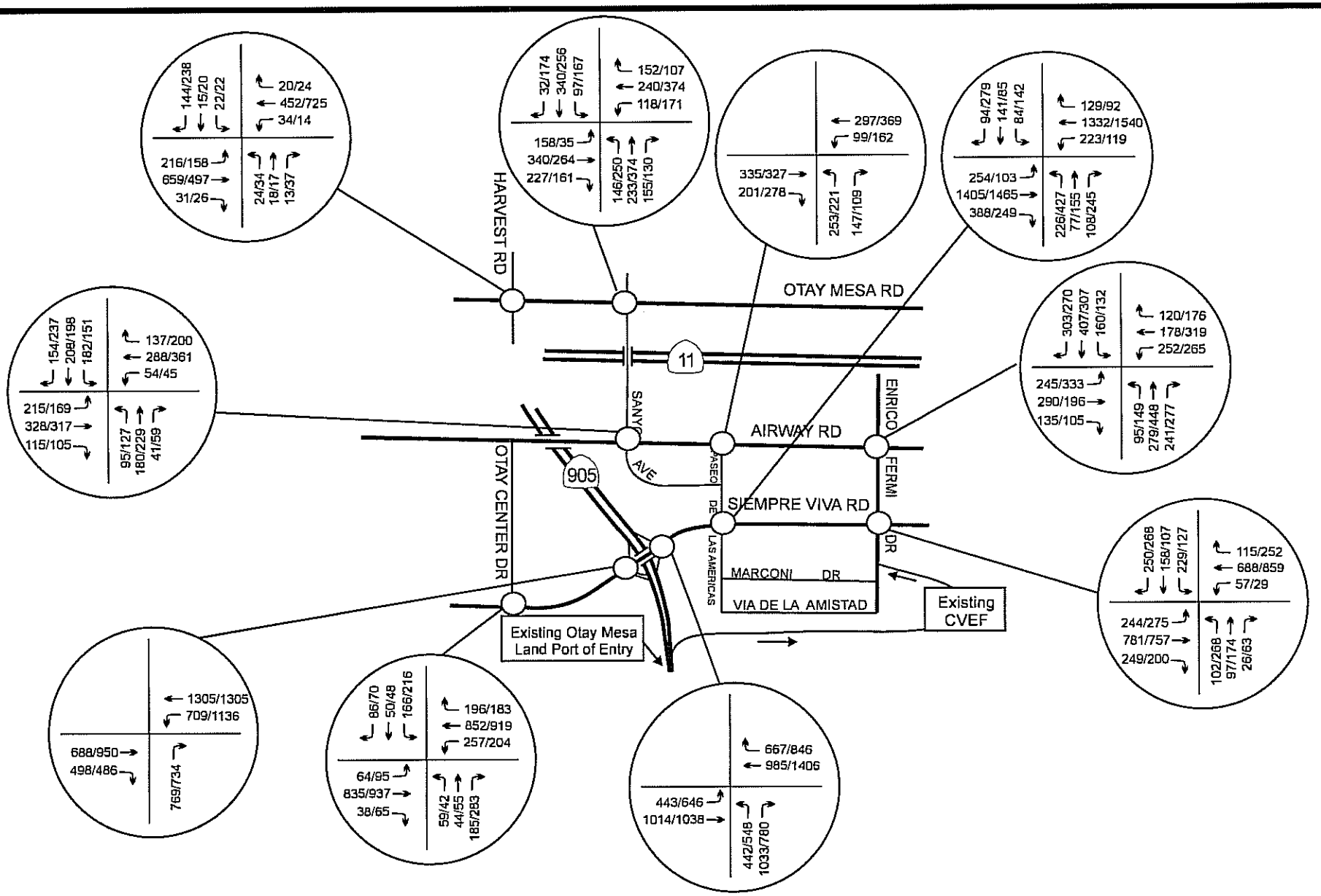


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-40b

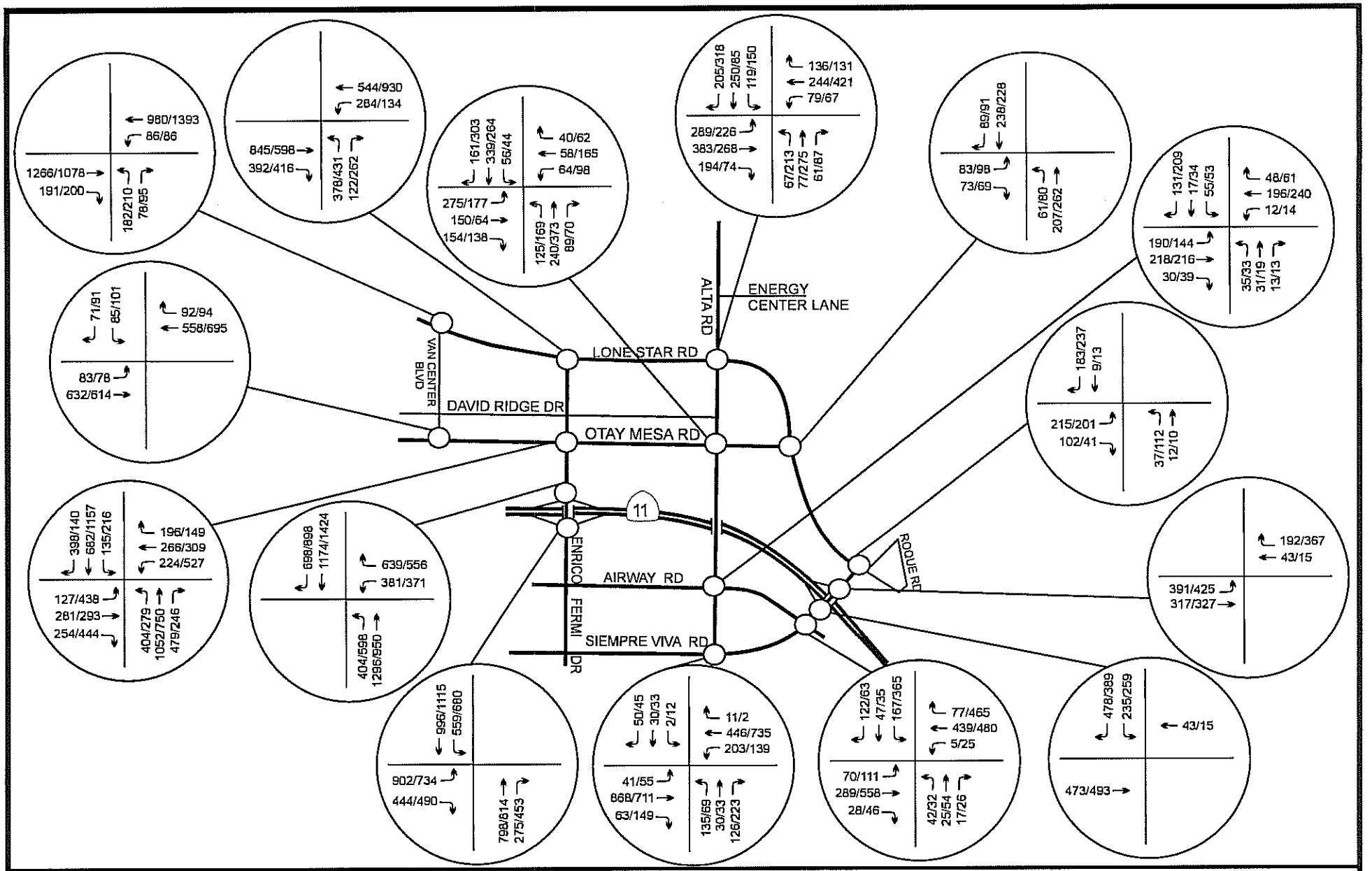


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-40c

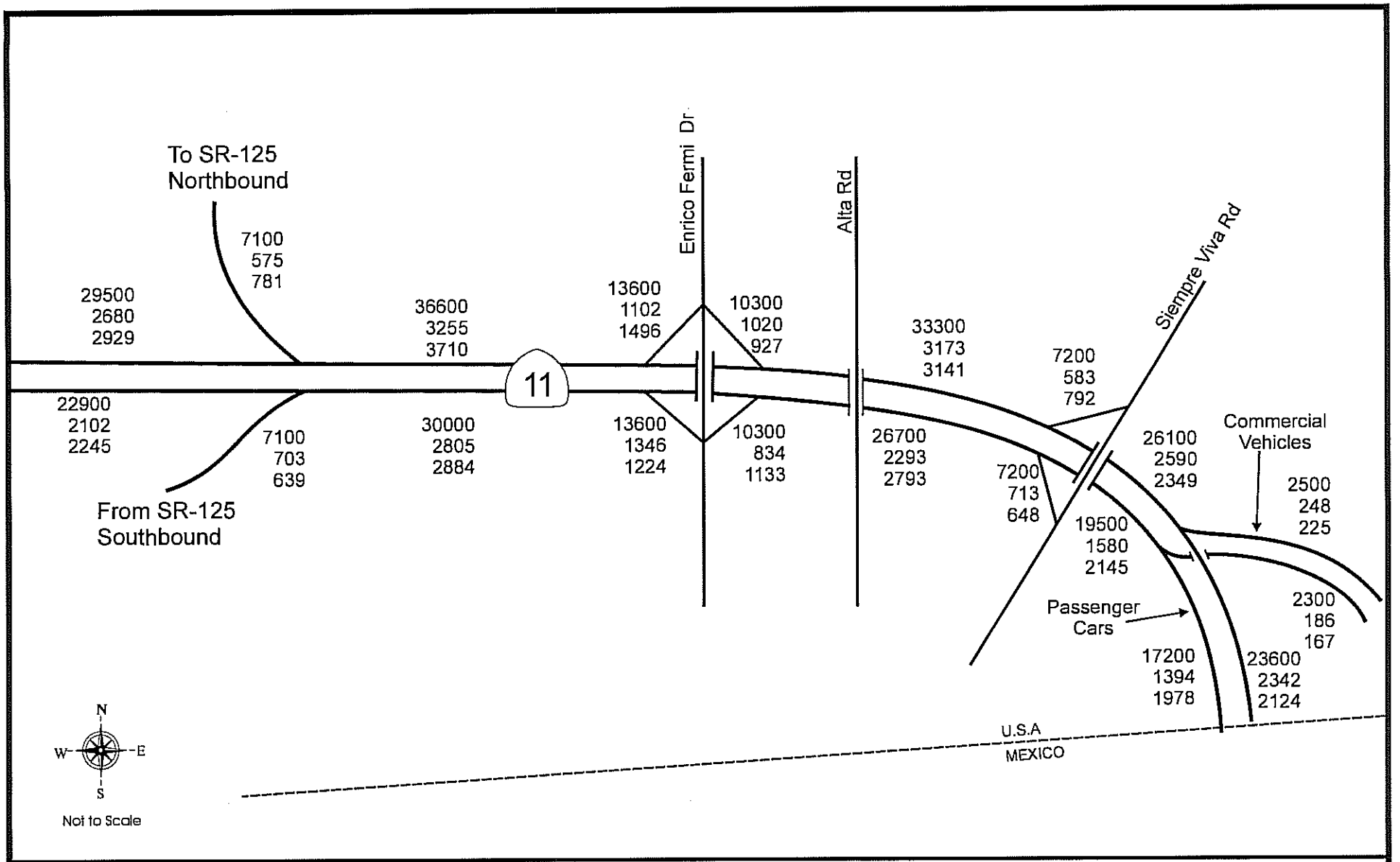


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-40d

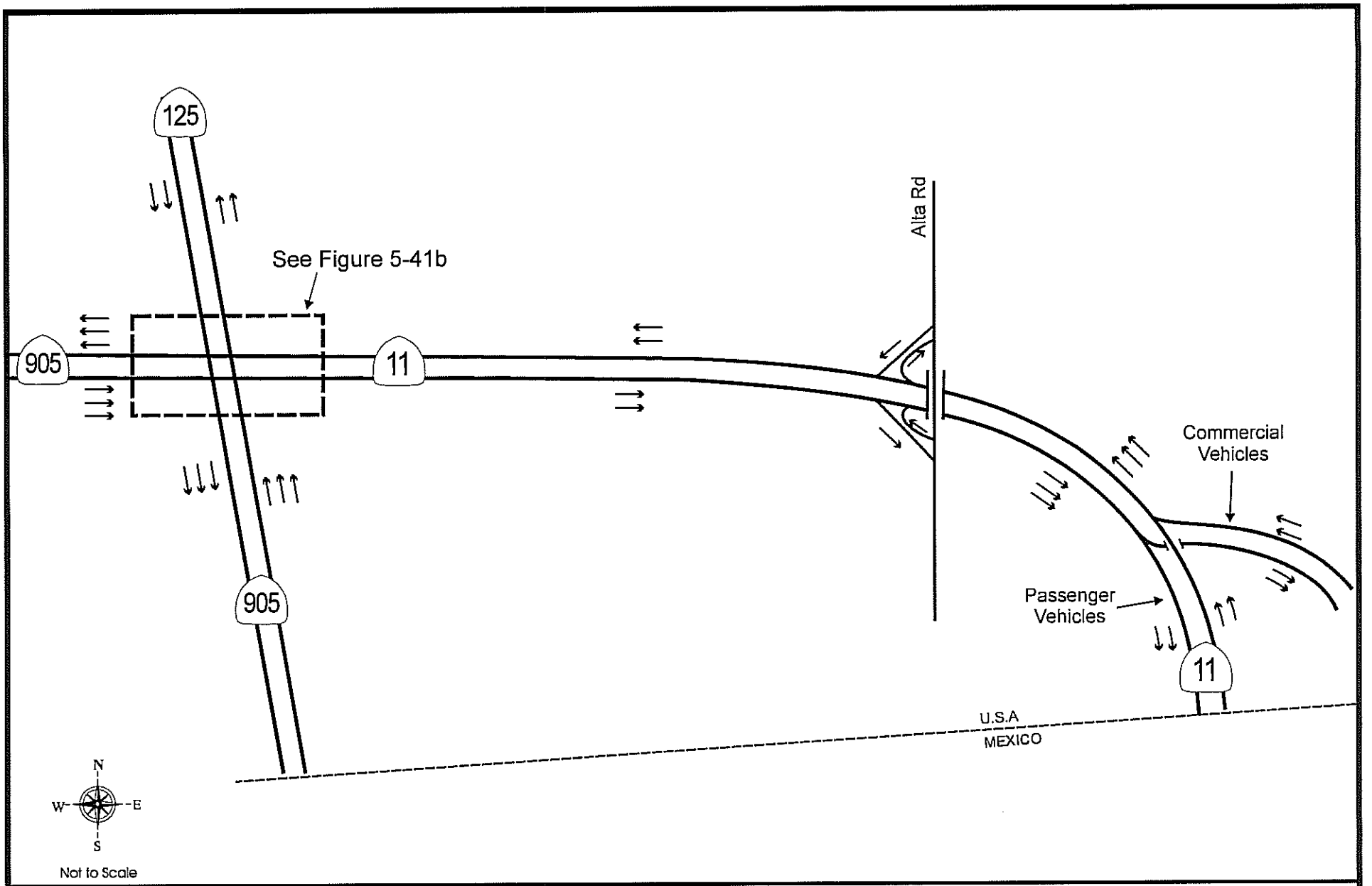


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-125 Connector/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-40e

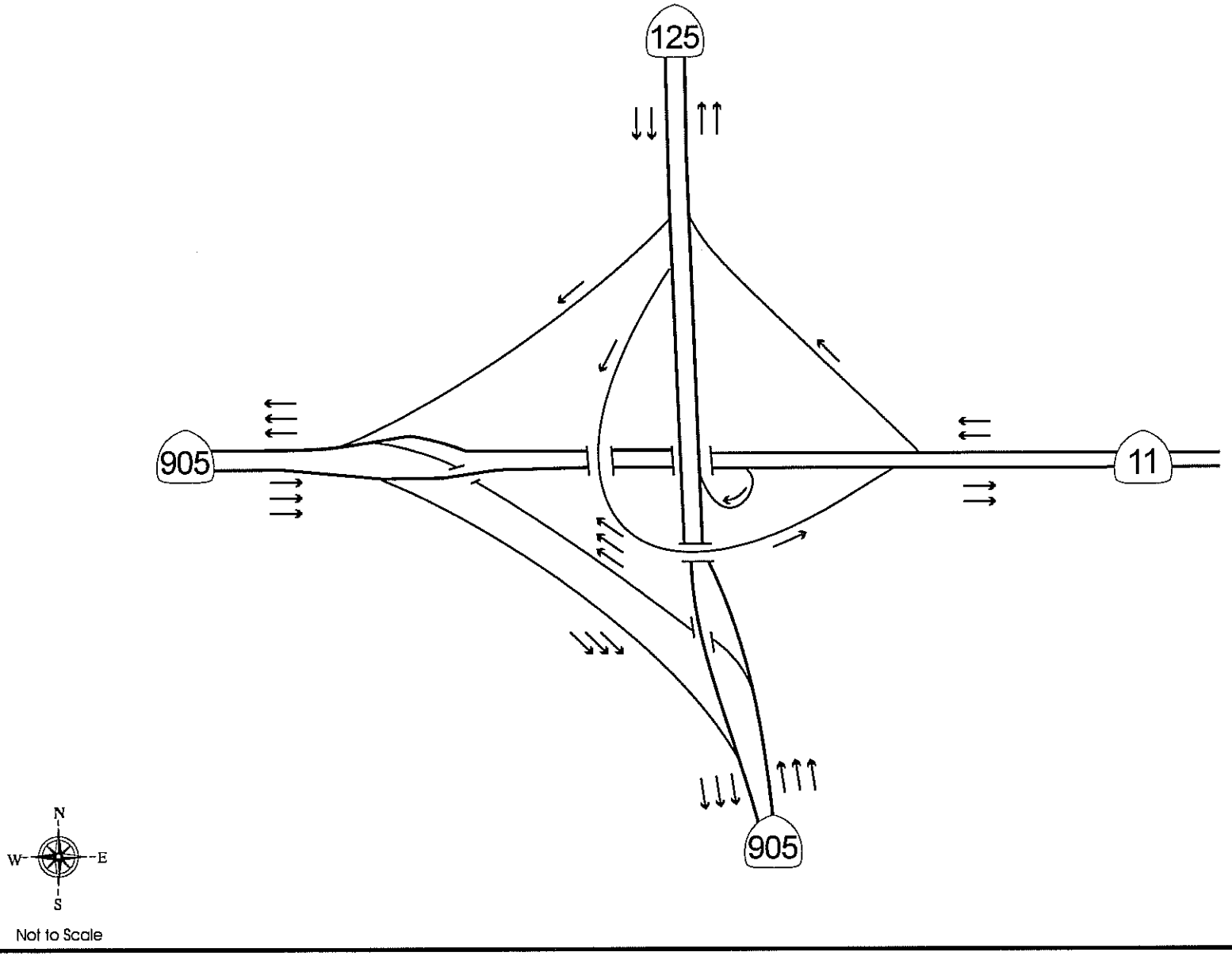


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/One Interchange Design Variation

Legend

← Number of Lanes

Figure 5-41a

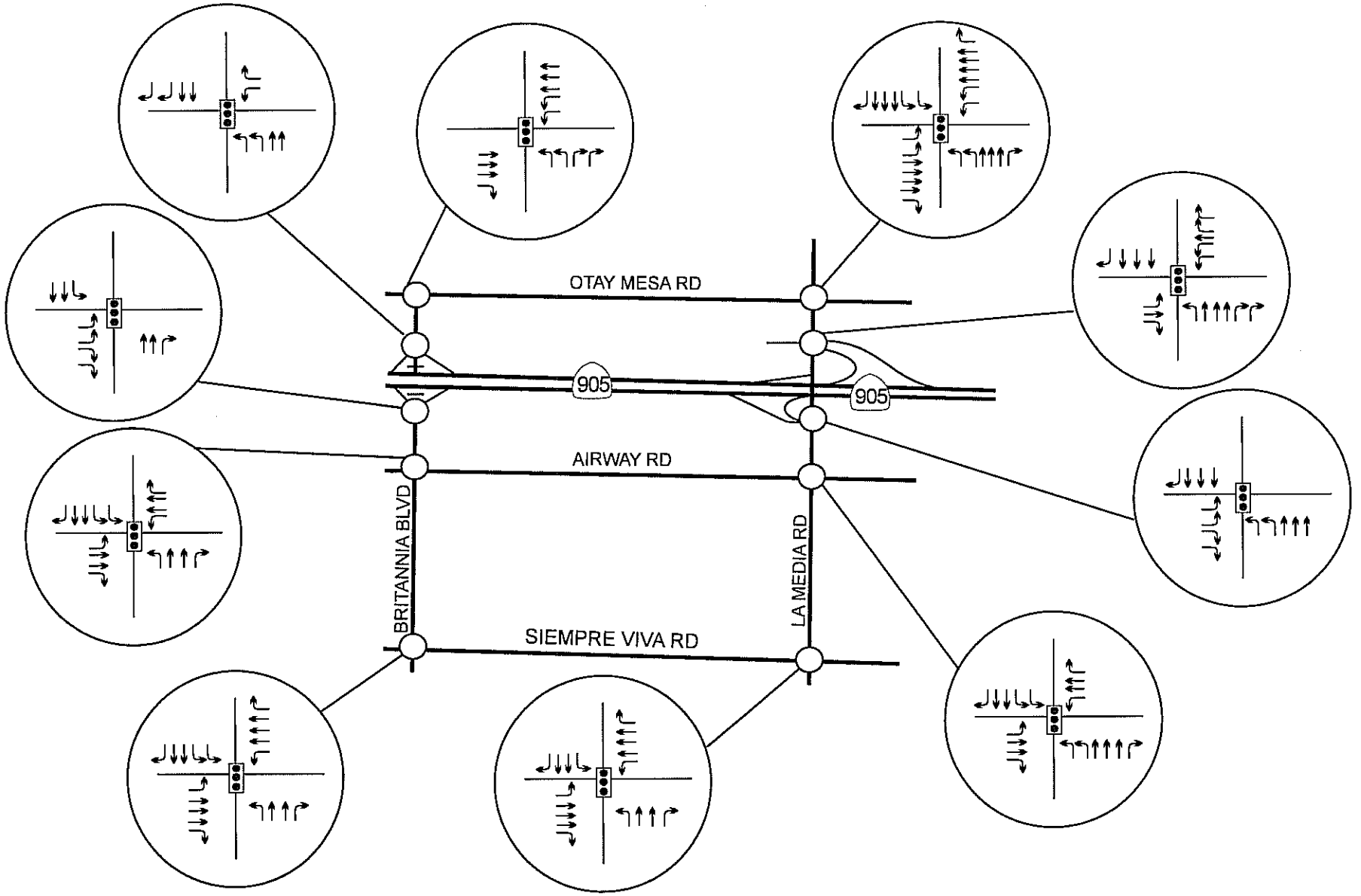


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/One Interchange Design Variation

Legend

← Number of Lanes

Figure 5-41b

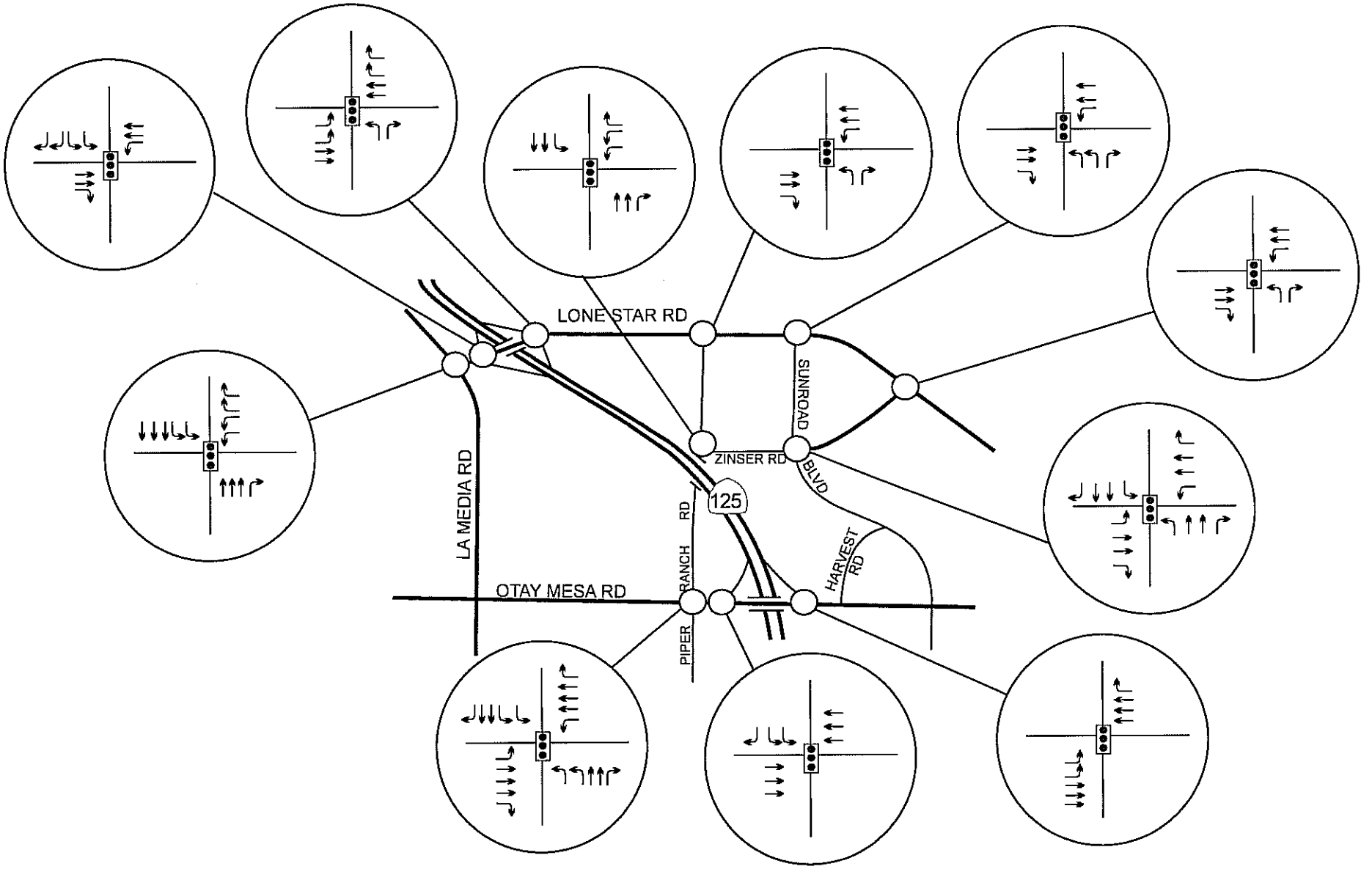


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-42a

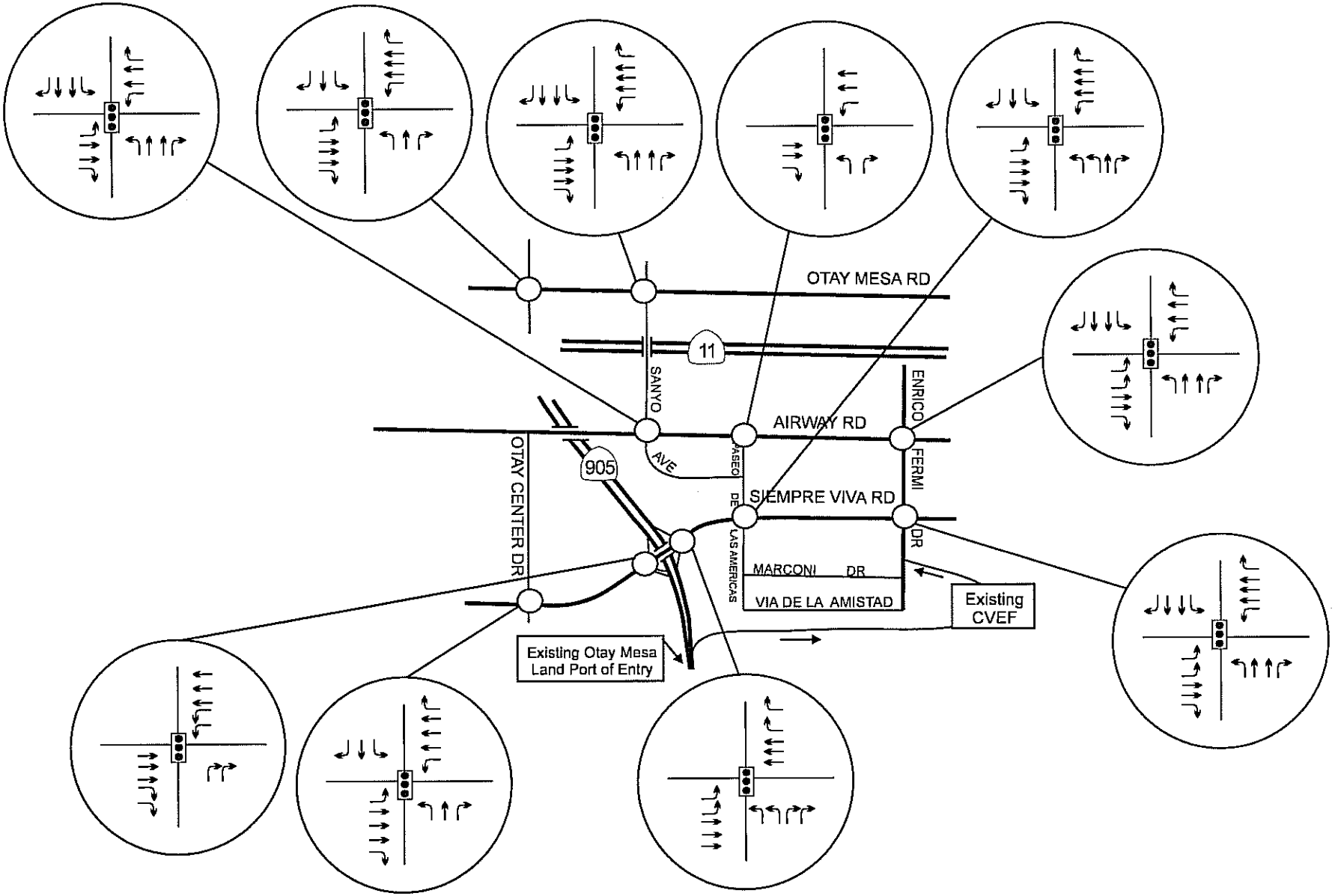


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-42b

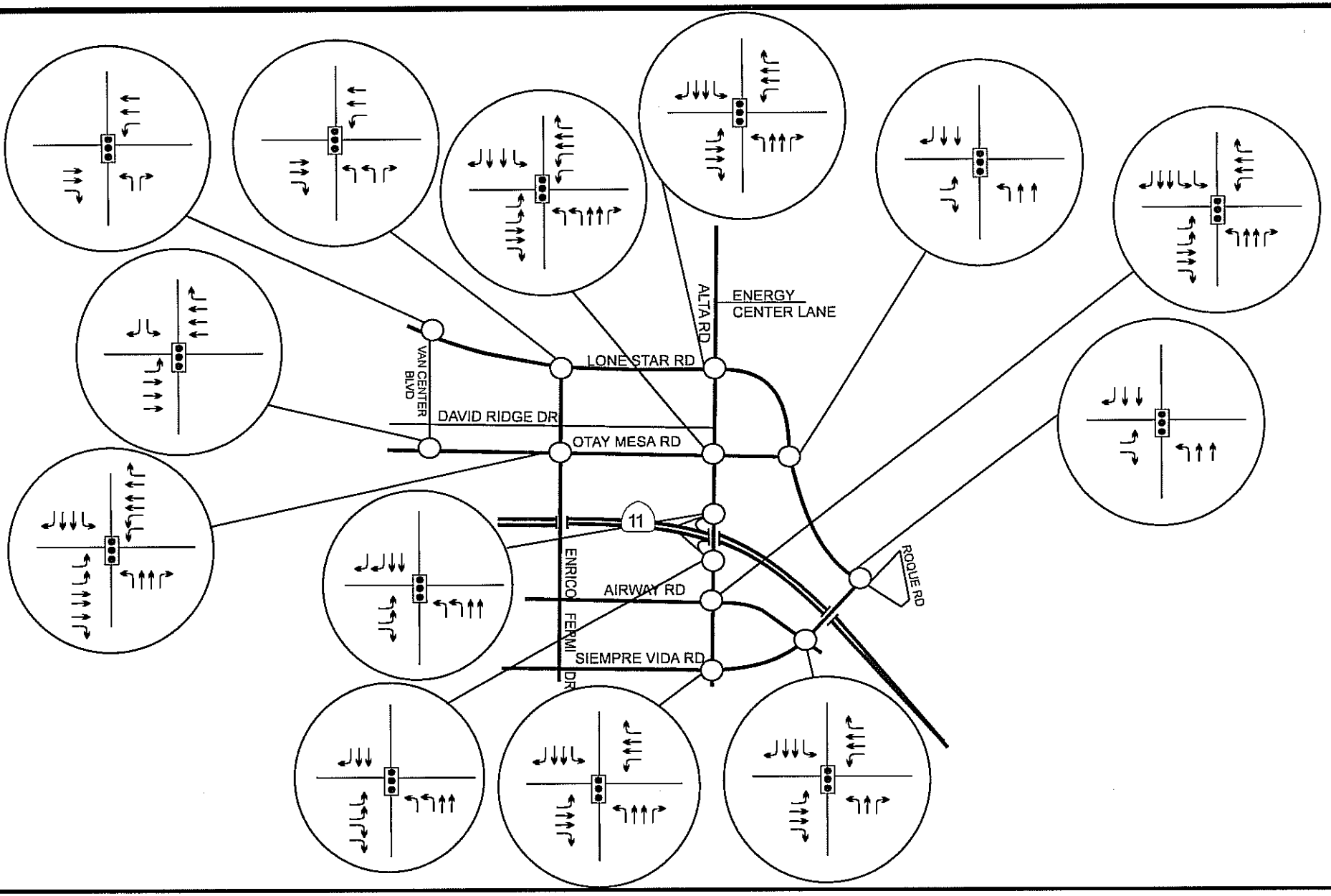


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-42c

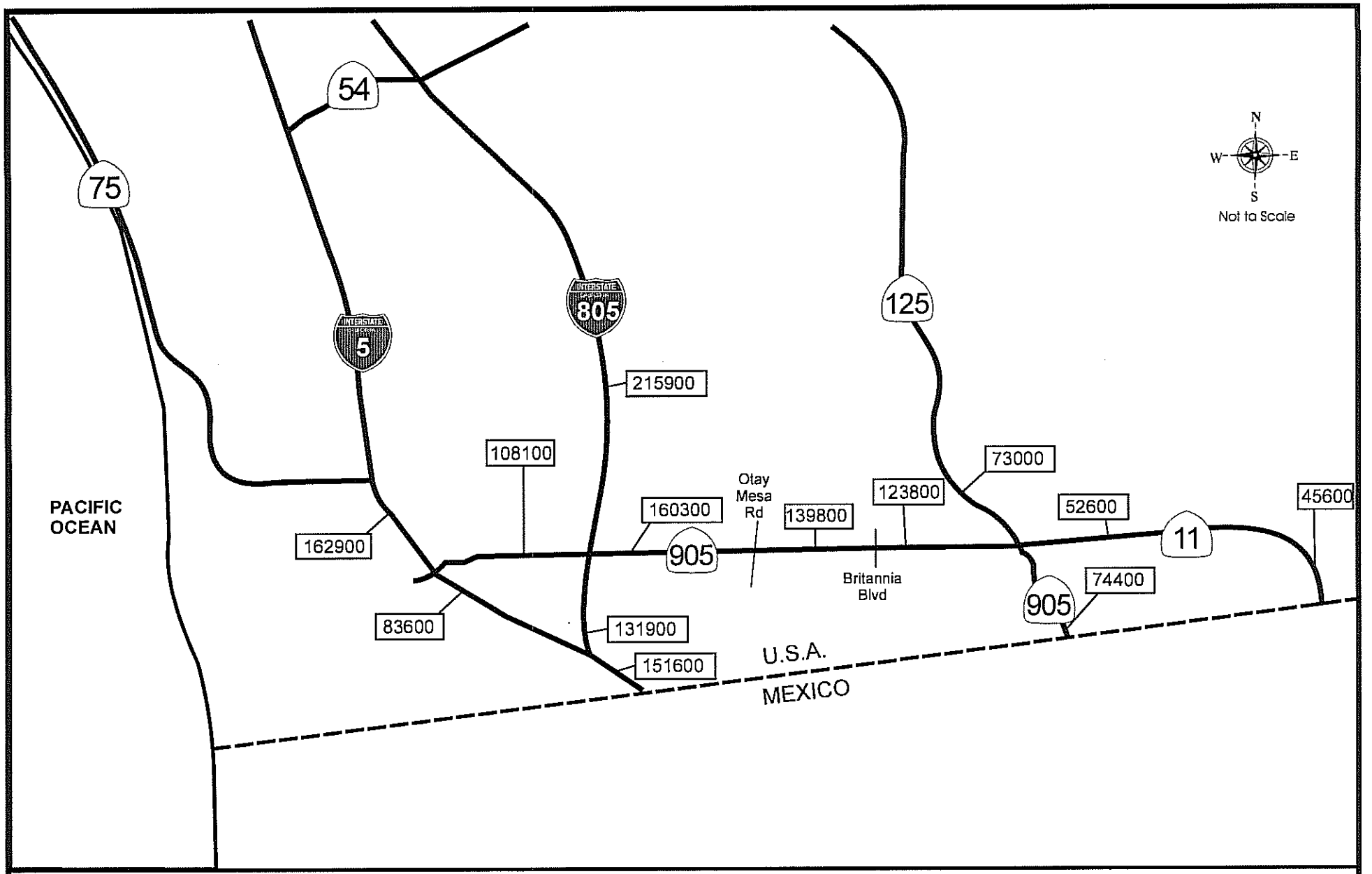


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-42d



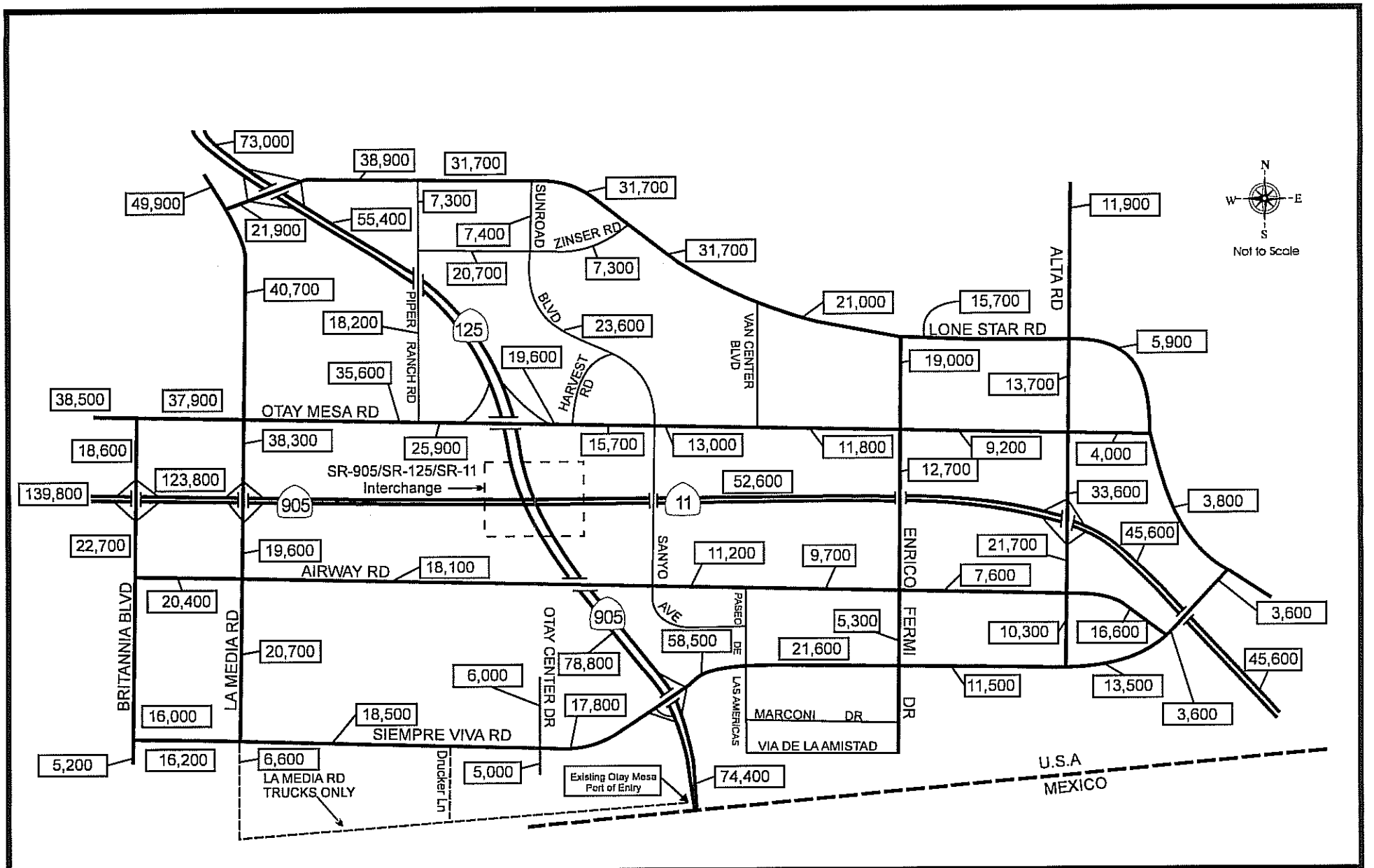
Horizon Year (2035) Average Daily Traffic -
SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-43a



Horizon Year (2035) Average Daily Traffic - SR-125 Connector/One Interchange Design Variation

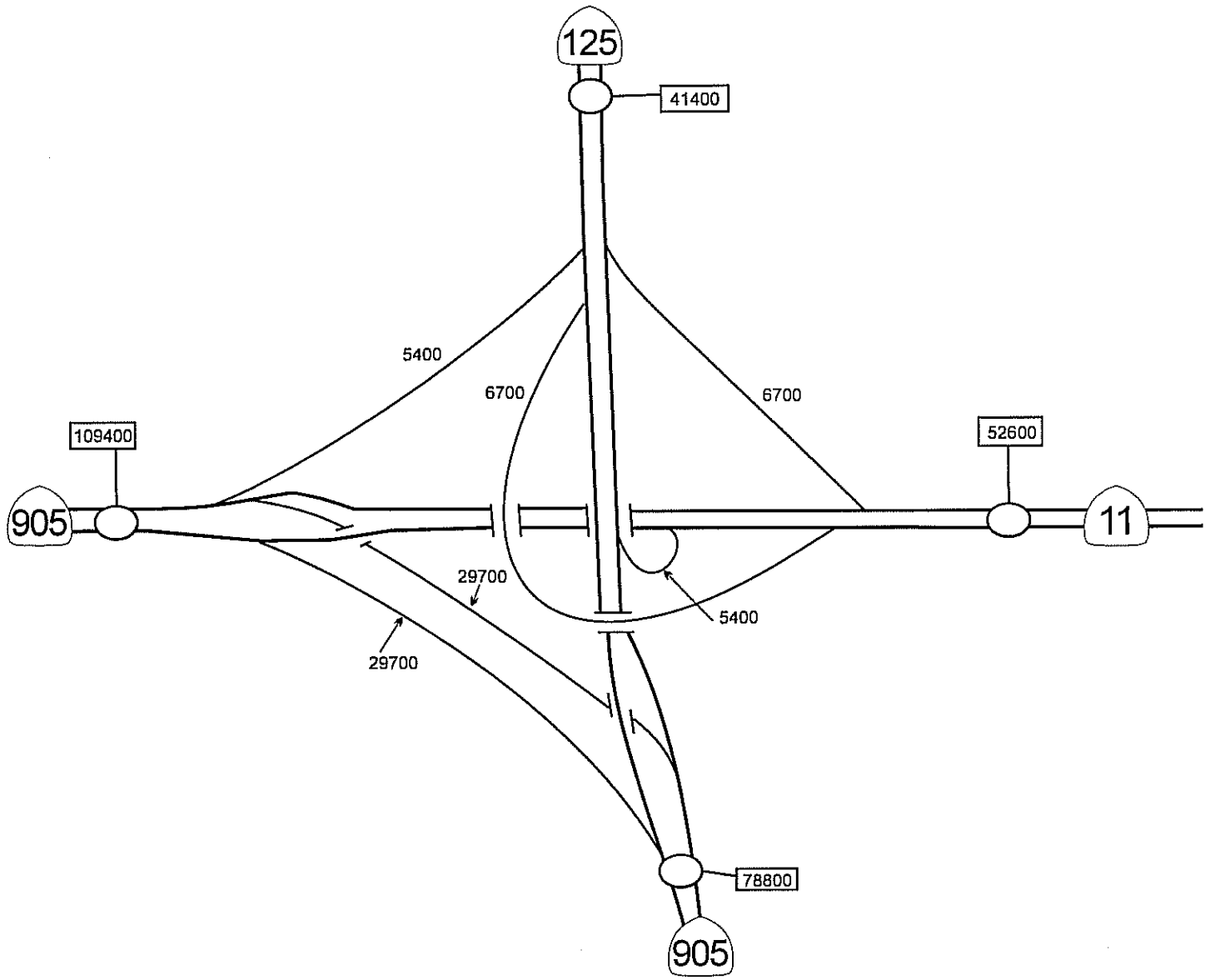
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-43b

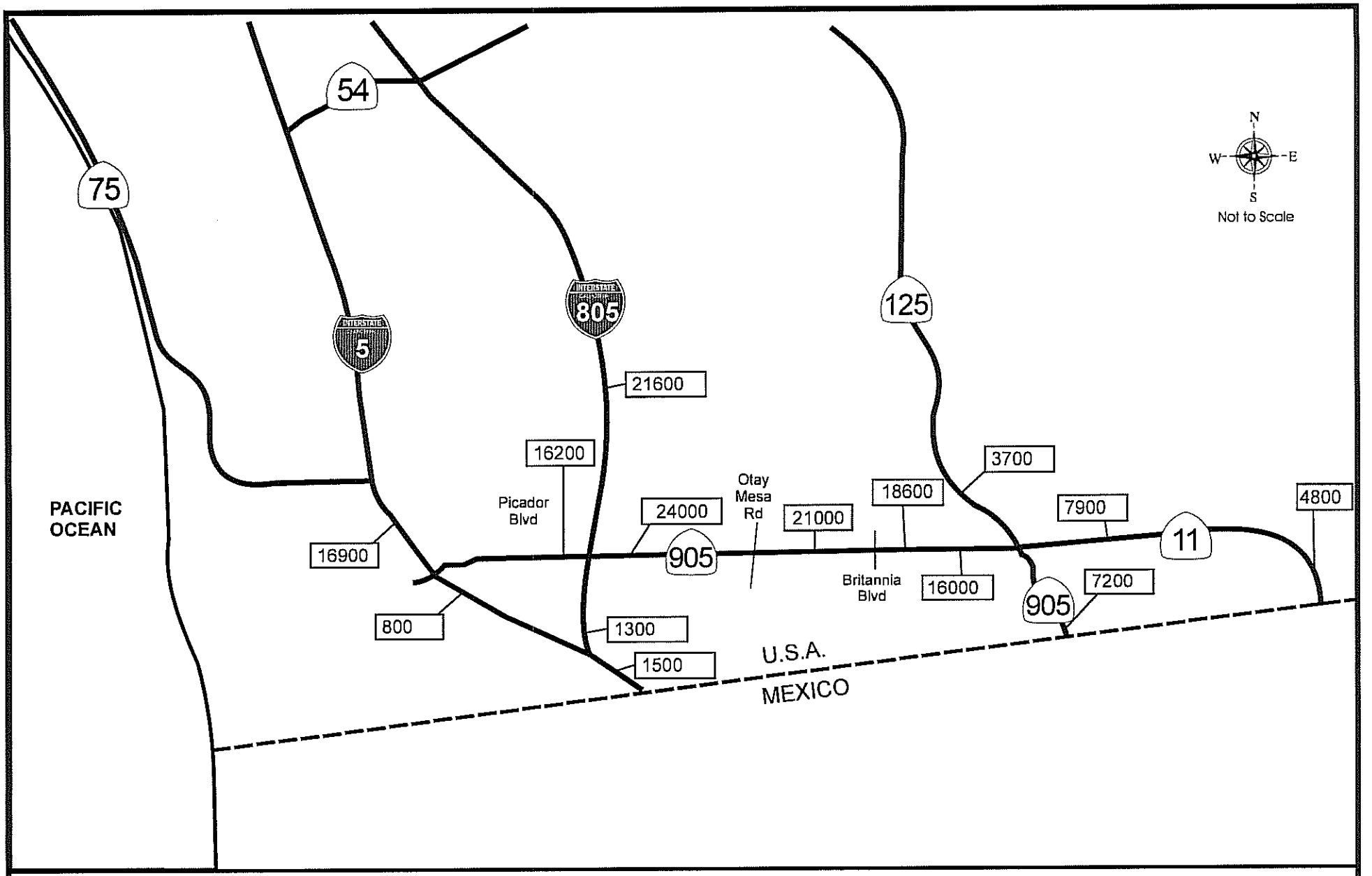


Horizon Year (2035) Average Daily Traffic -
SR-125 Connector/One Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-43c



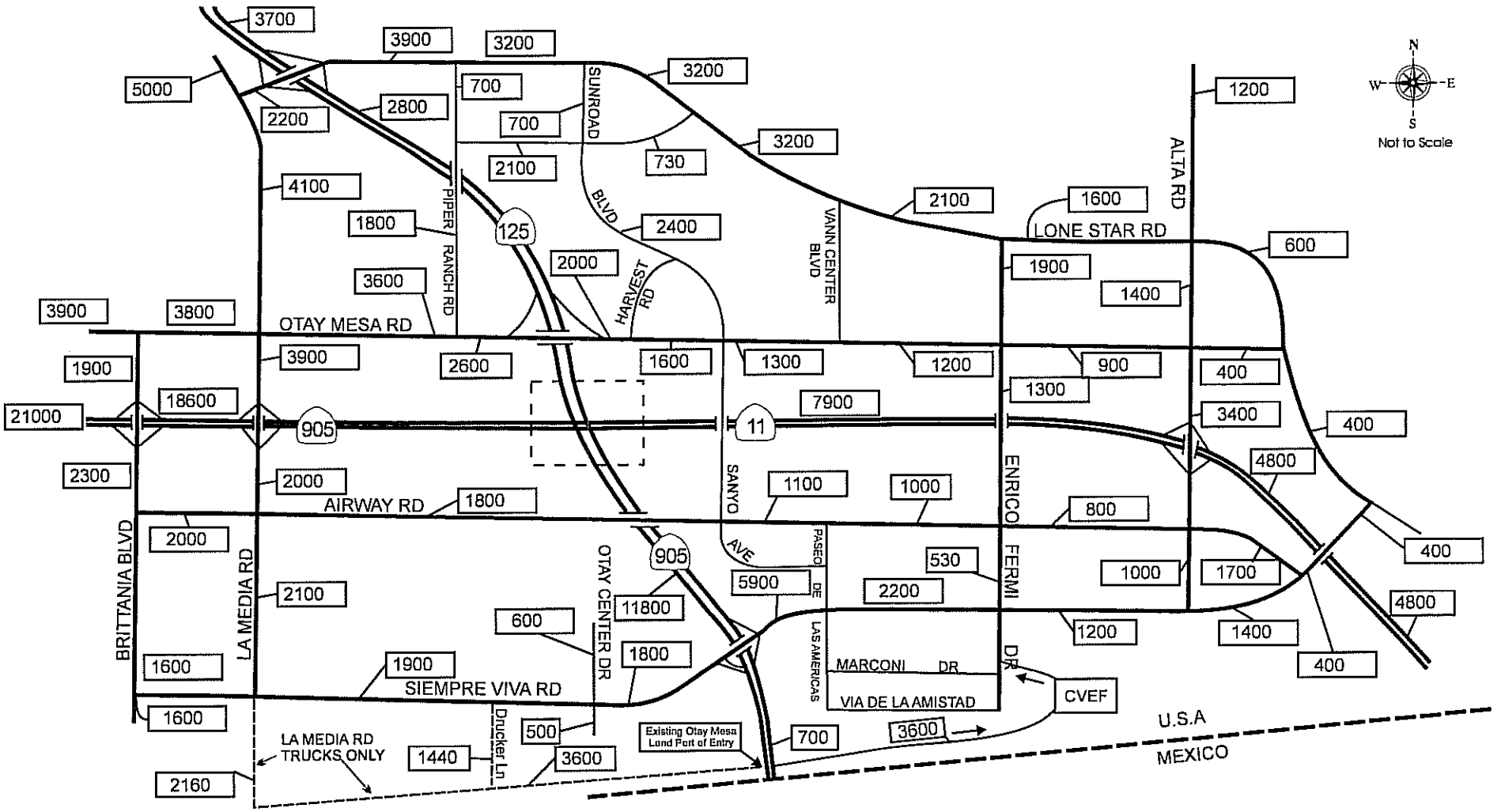
Horizon Year (2035) Daily Truck Trips -
SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-44a

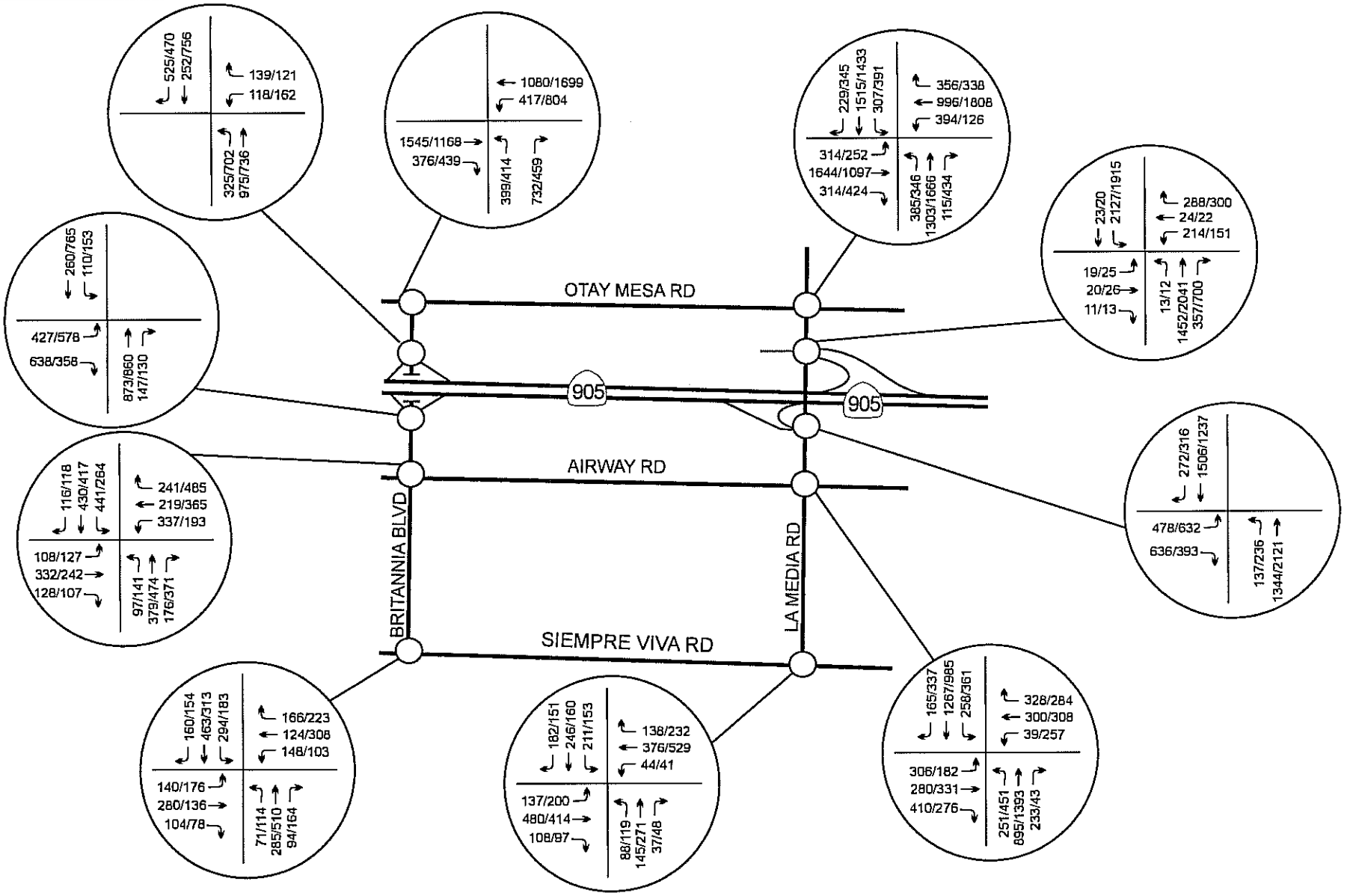


Horizon Year (2035) Daily Truck Trips - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-44b

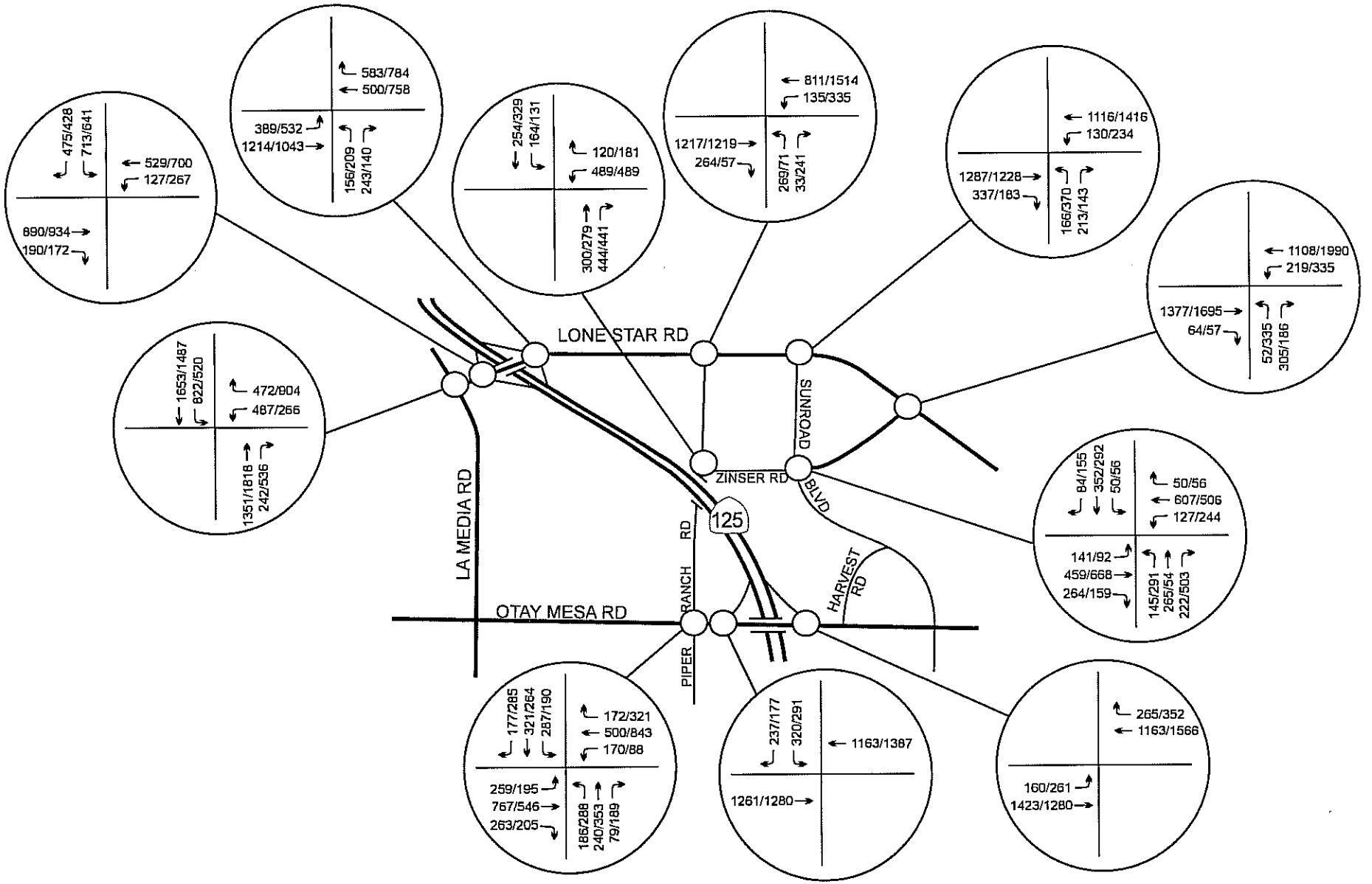


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-45a

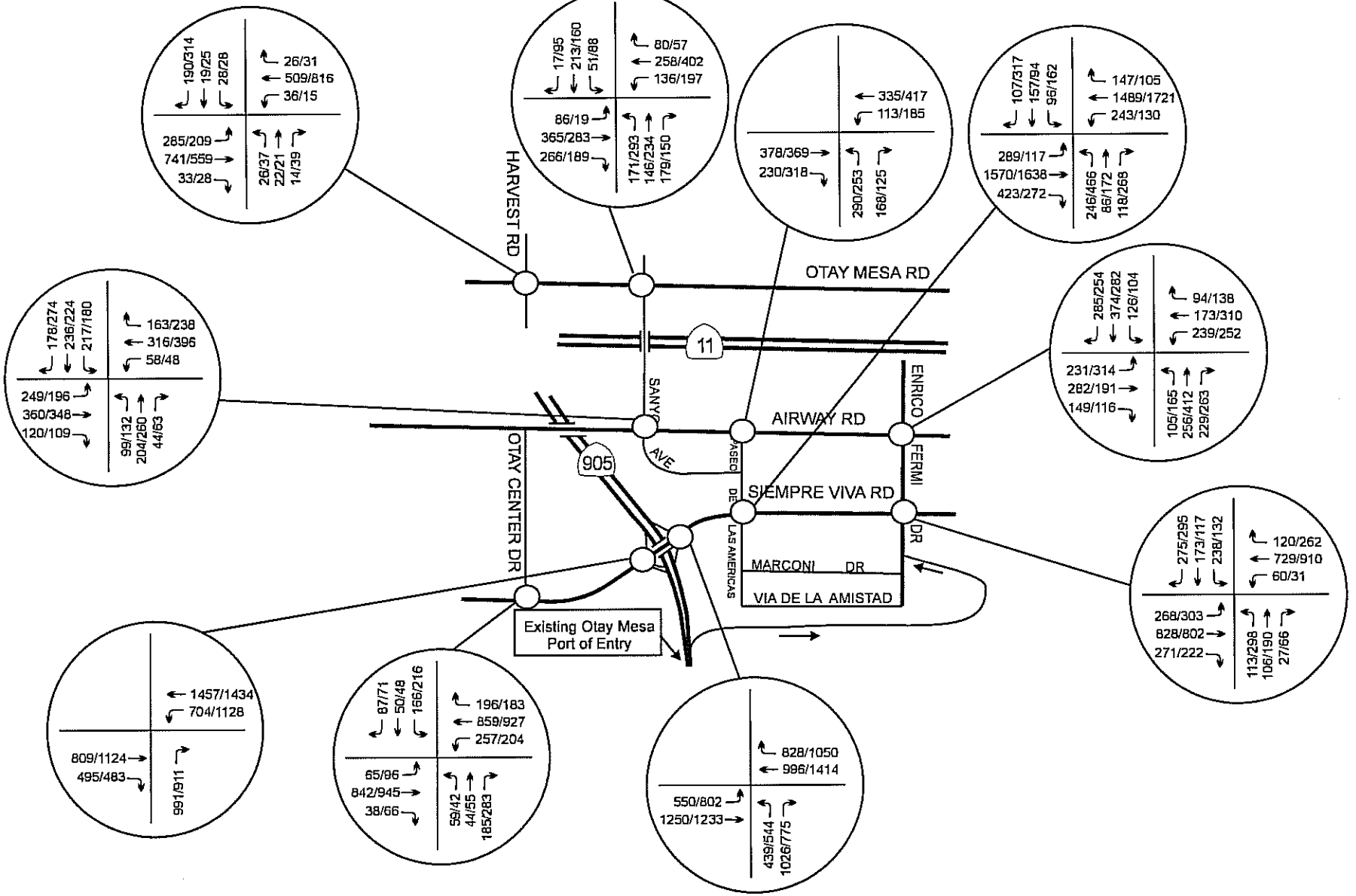


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-45b

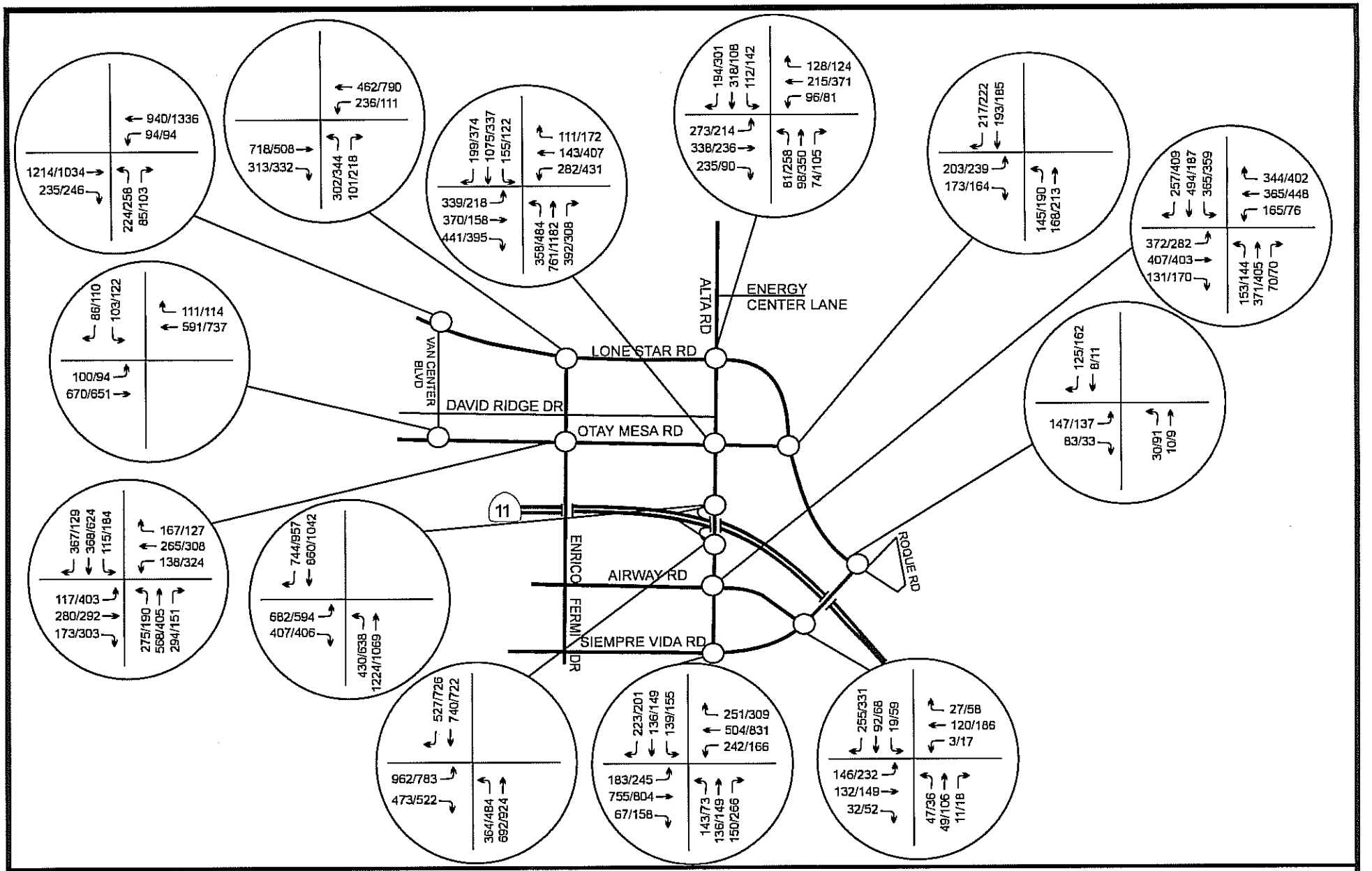


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

Existing or Proposed Freeway/Tollway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-45c

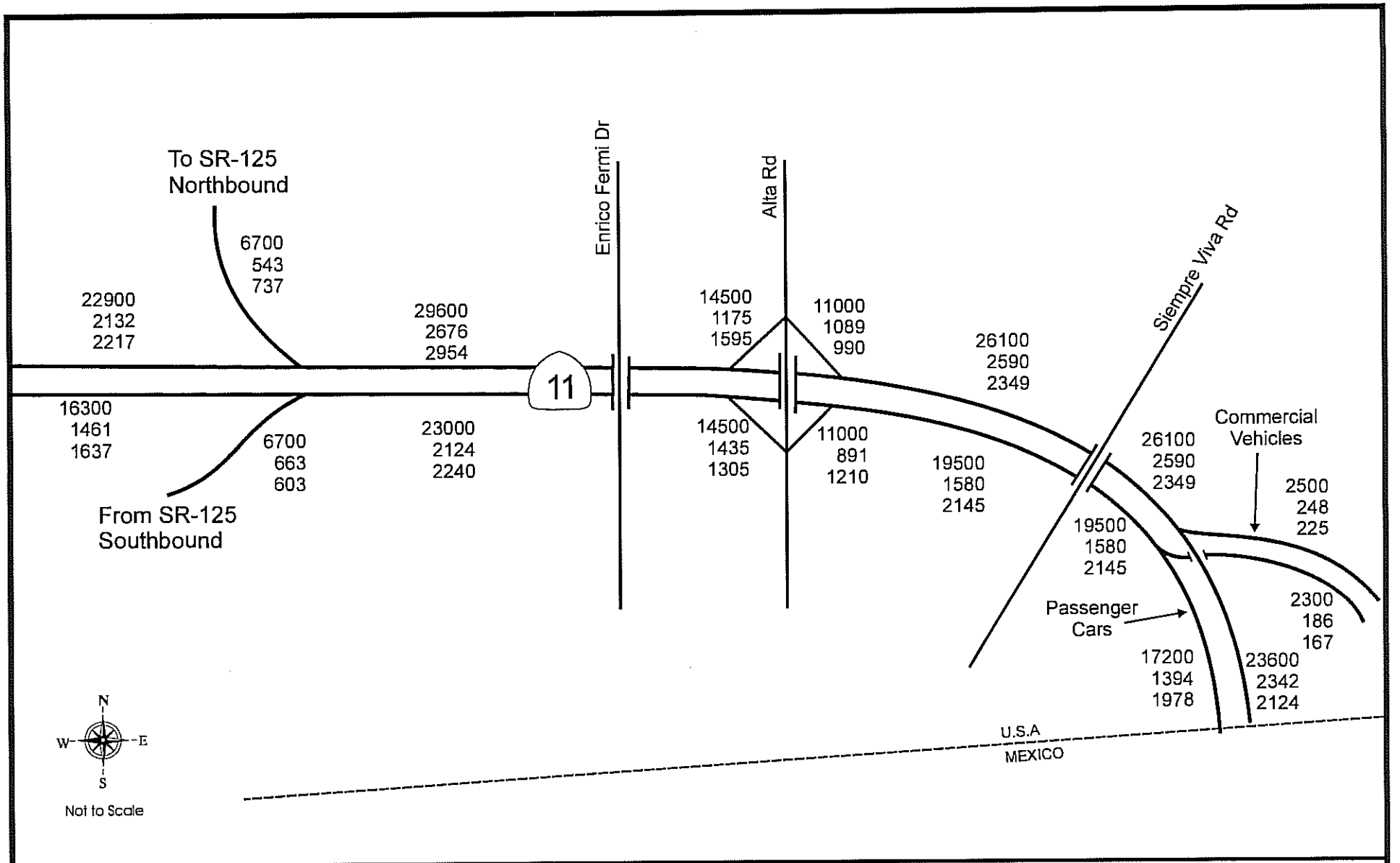


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/One Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-45d

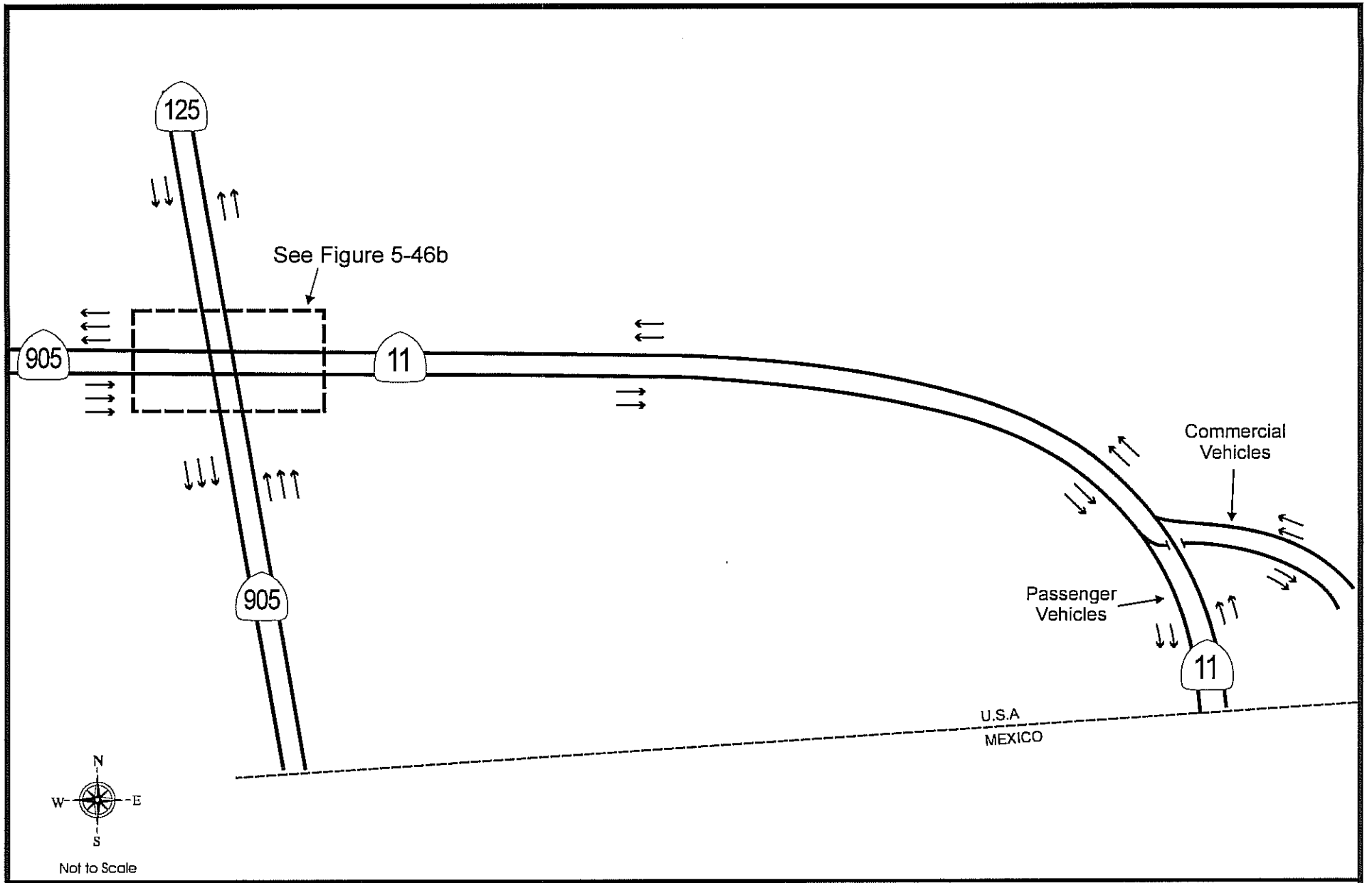


Horizon Year (2035) AM/PM Peak Hour Traffic -
SR-11 Mainline and Ramps - SR-125 Connector/One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-45e

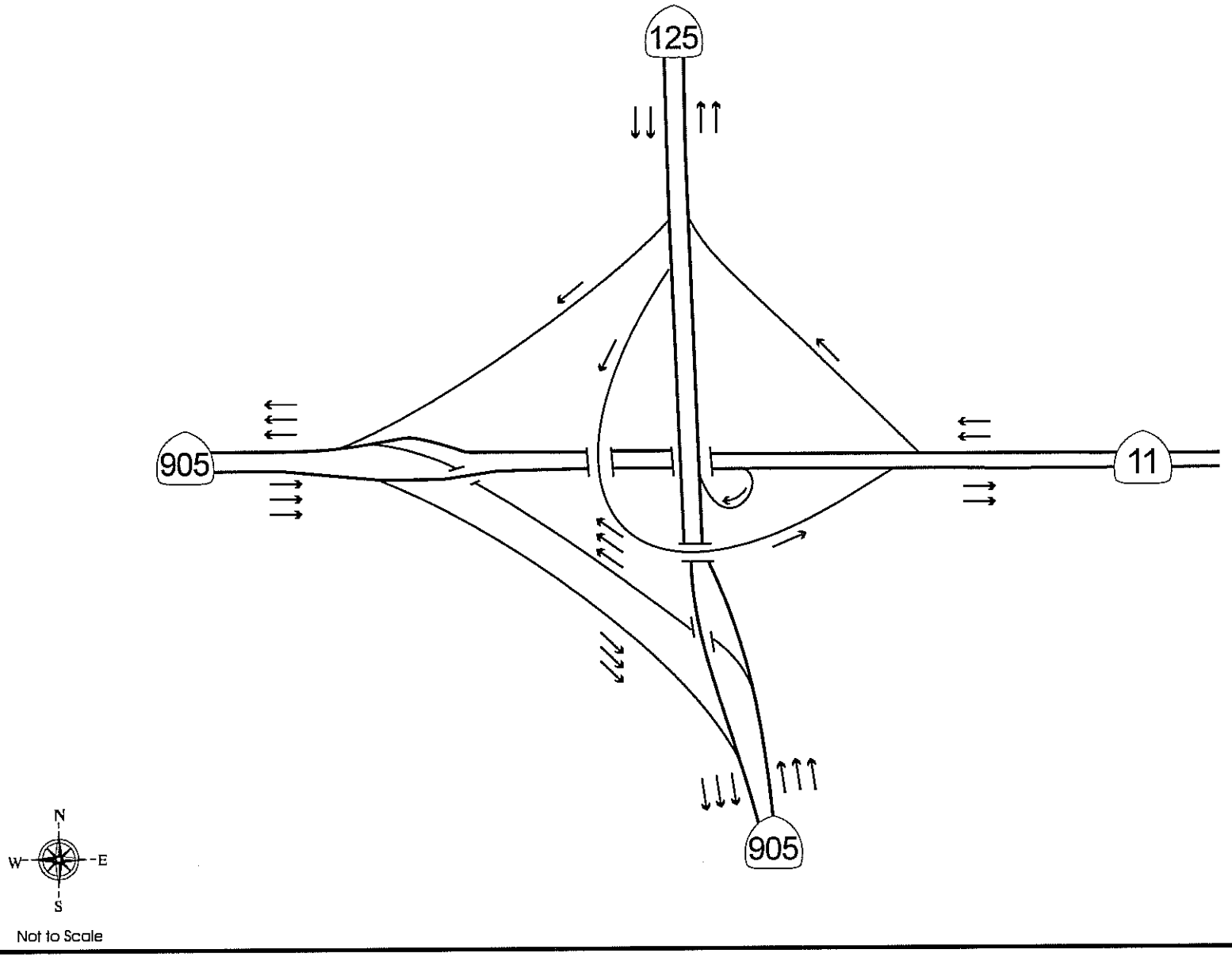


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/No Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 5-46a

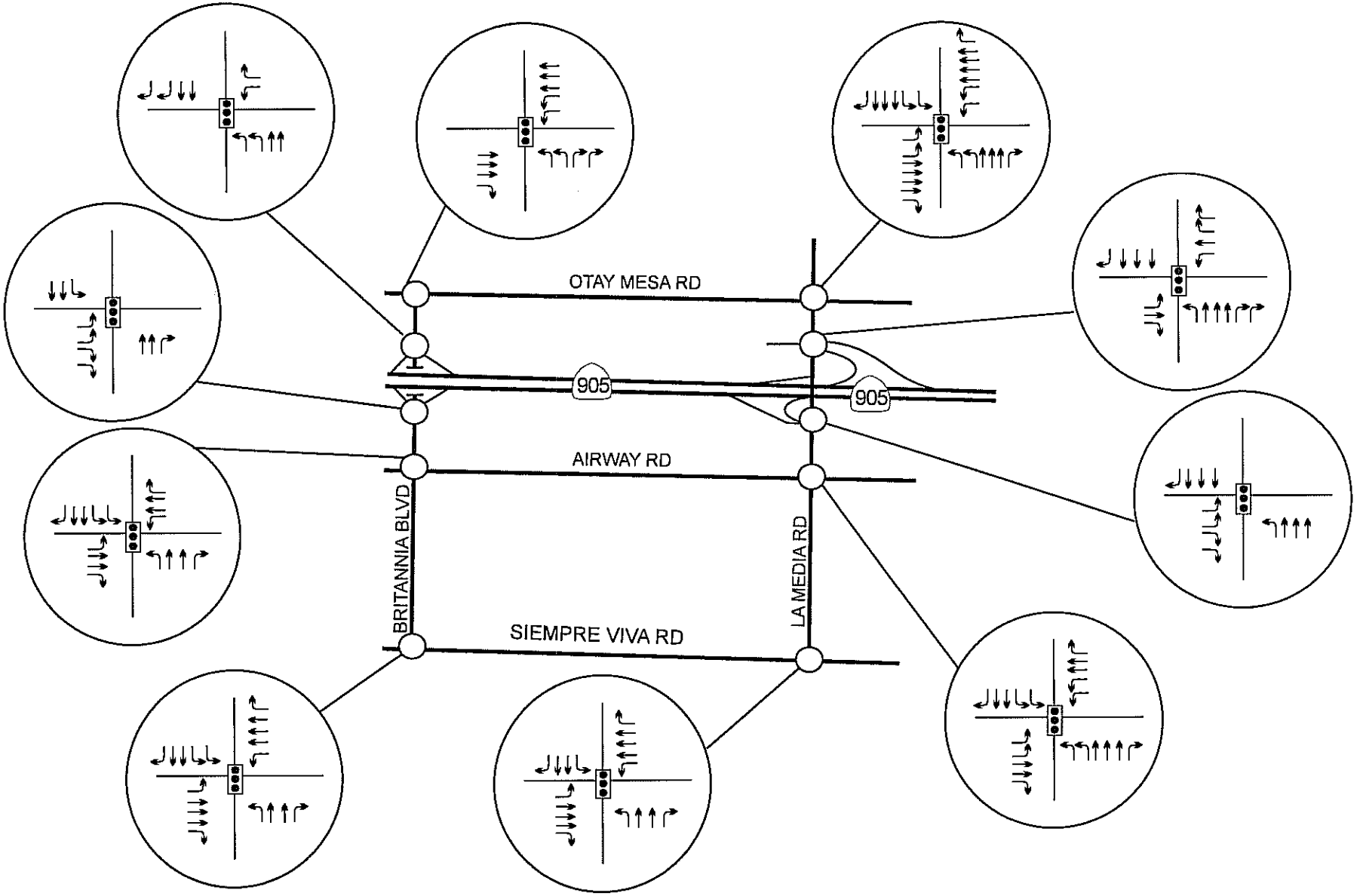


Horizon Year (2035) SR-11 Lane Geometry
SR-125 Connector/No Interchange Design Variation

Legend

← Number of Lanes

Figure 5-46b

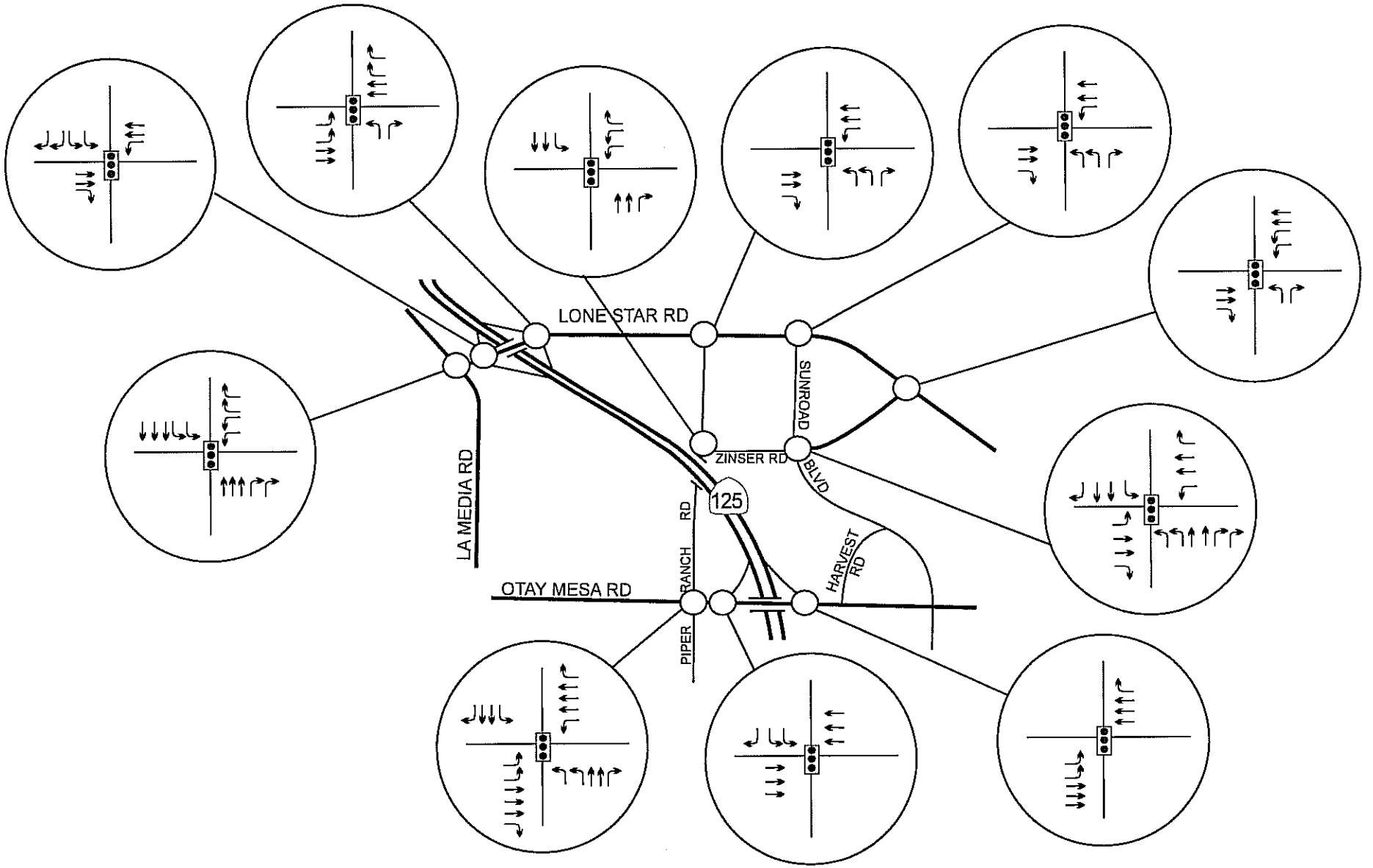


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-47a

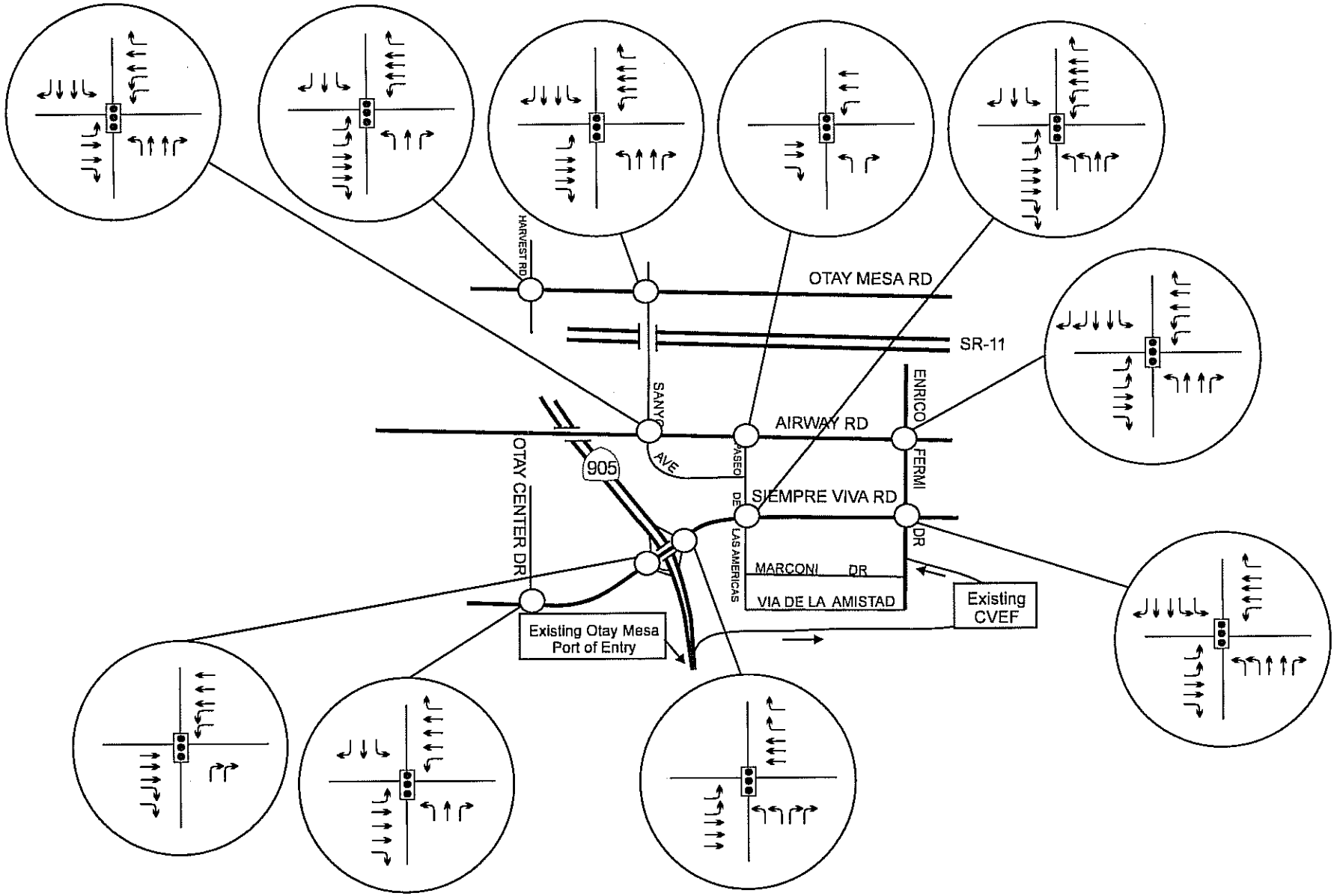


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-47b

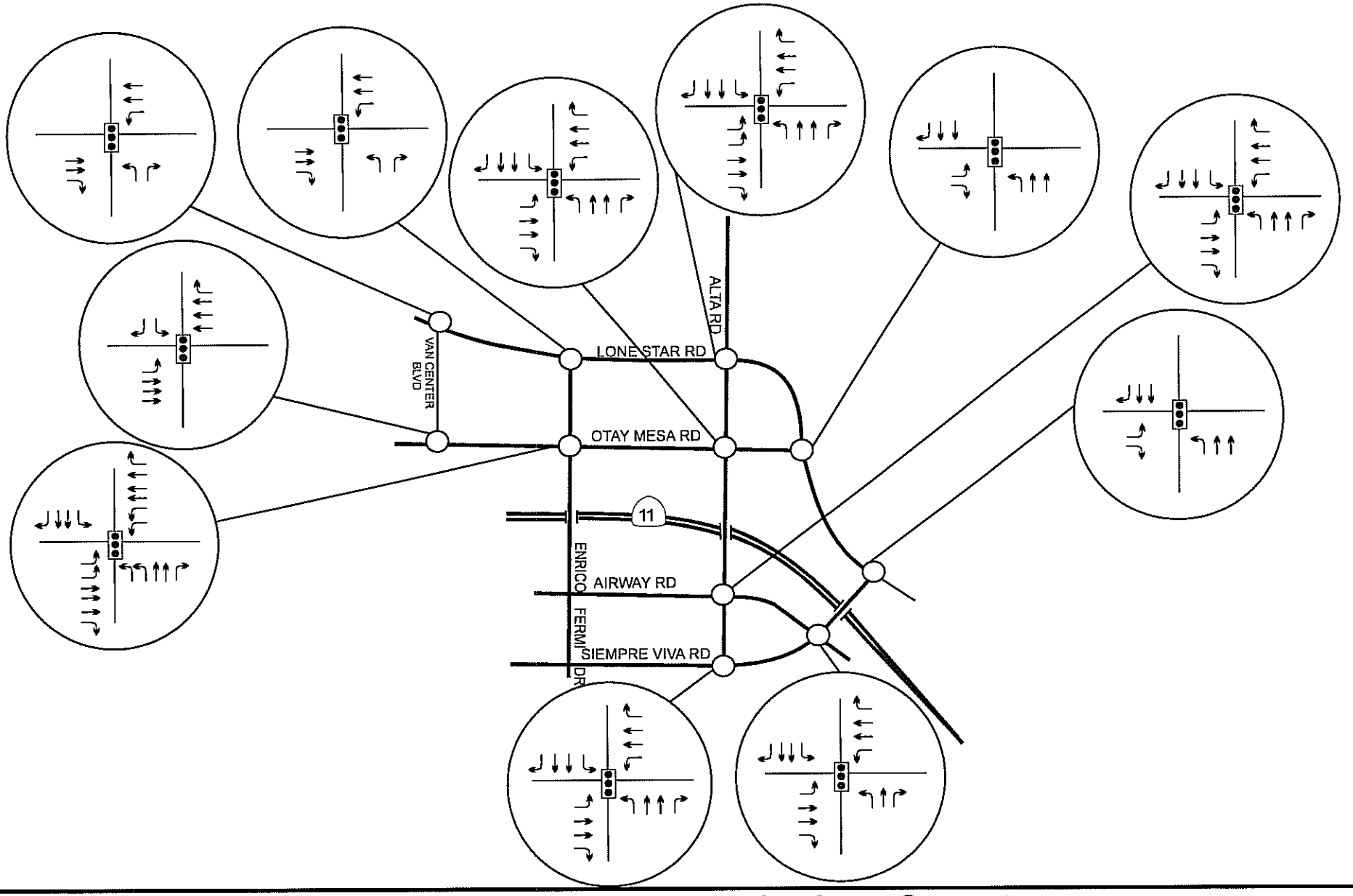


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-47c

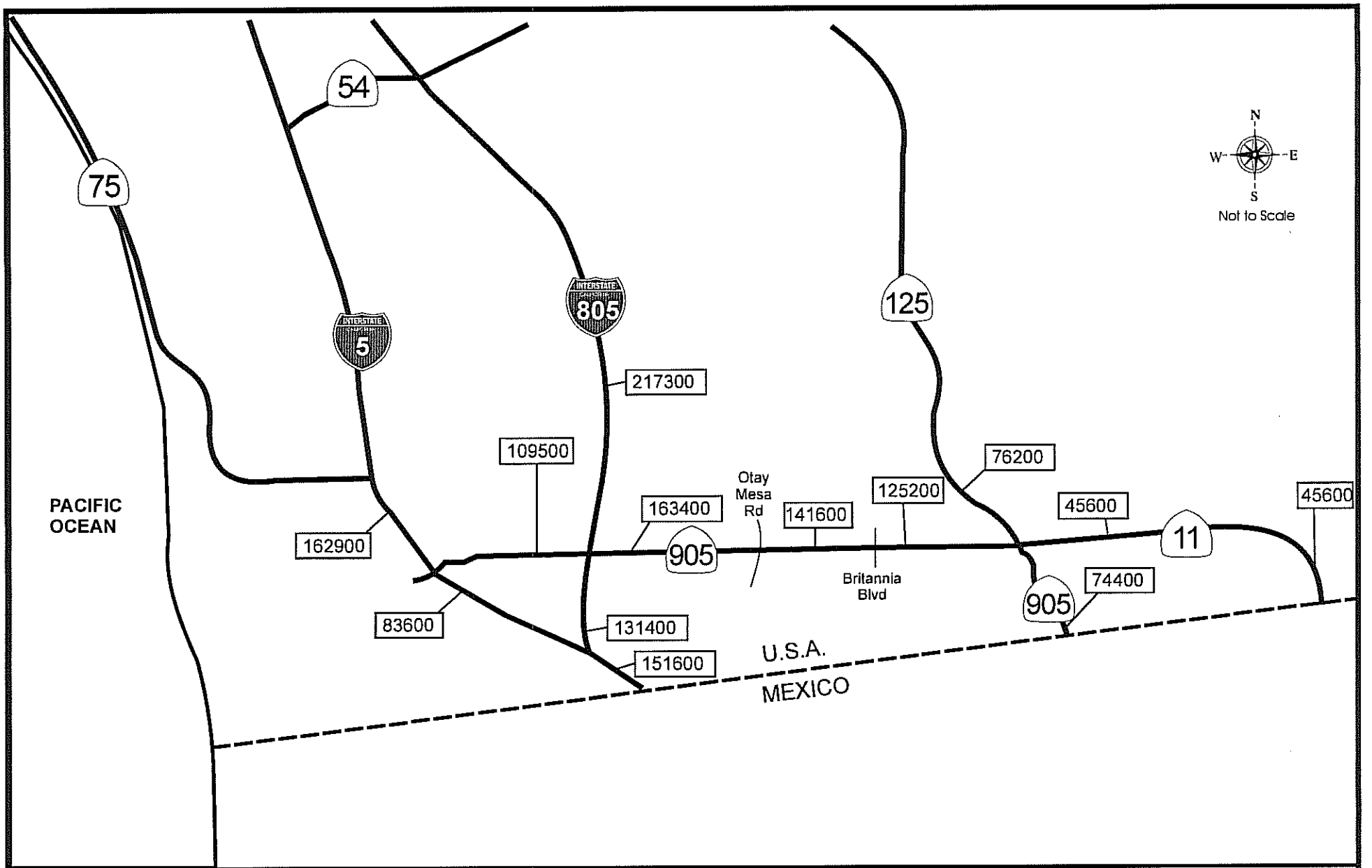


Horizon Year (2035) Intersection Lane Geometry - SR-125 Connector/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-47d



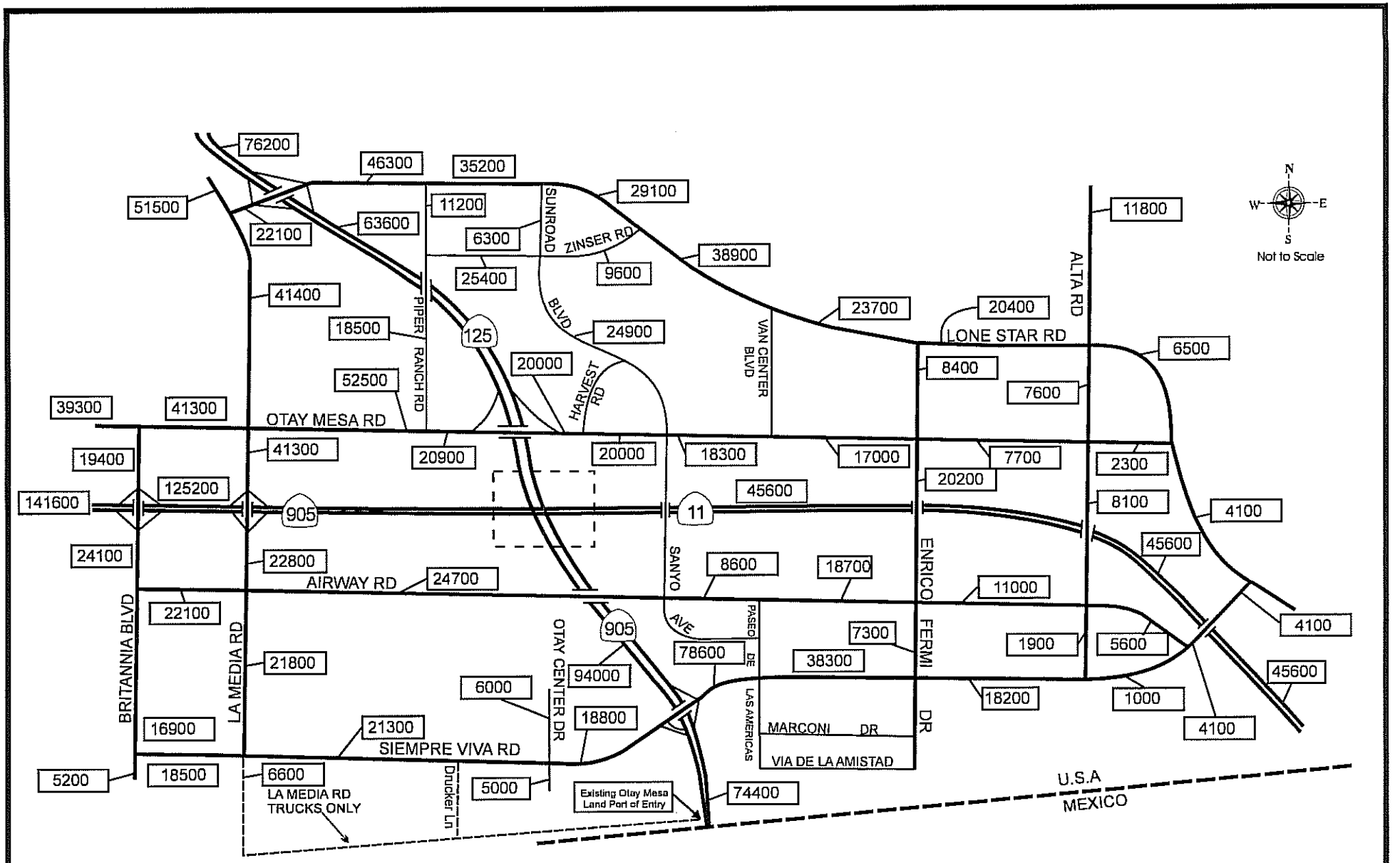
Horizon Year (2035) Average Daily Traffic - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-48a

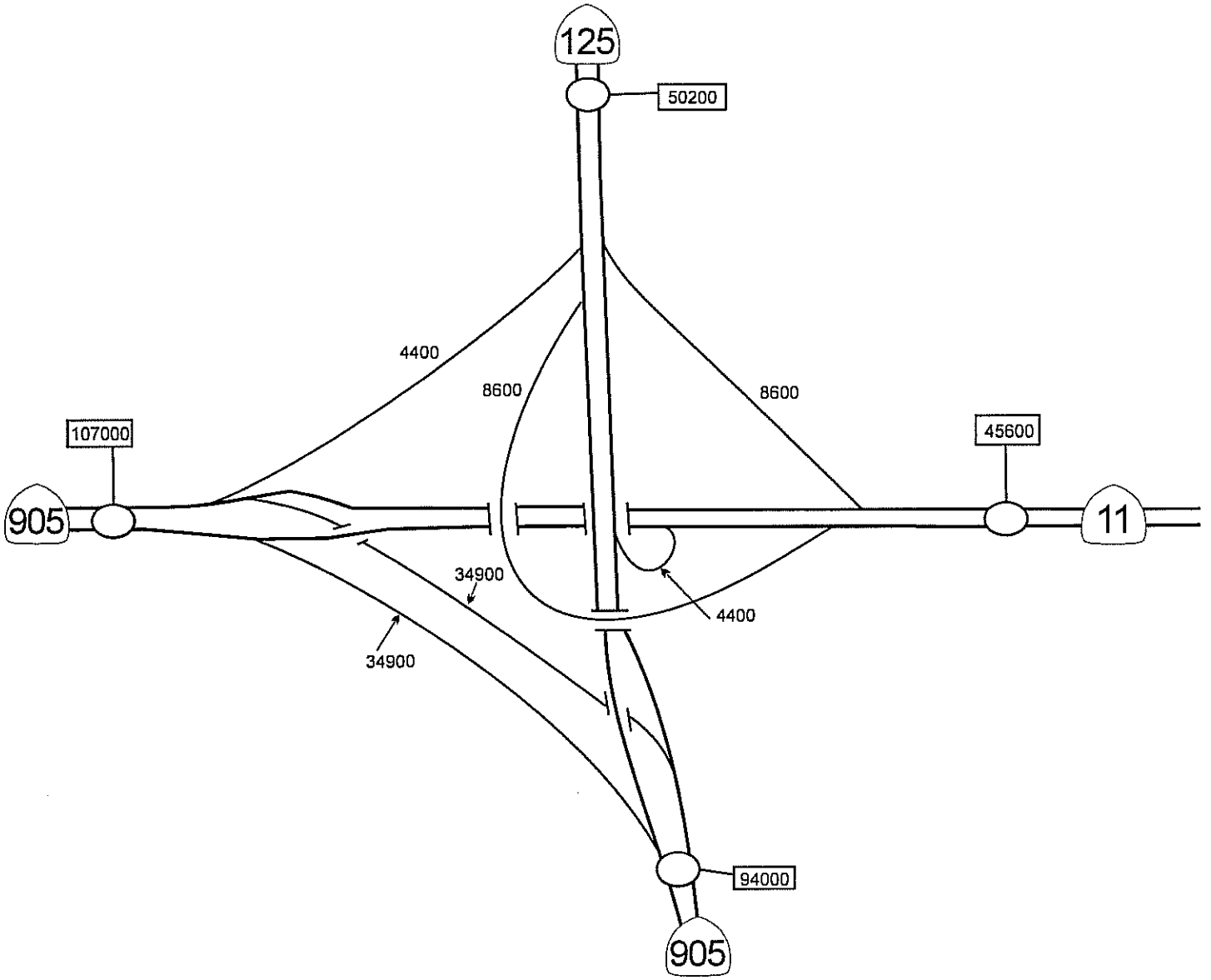


Horizon Year (2035) Average Daily Traffic - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-48b

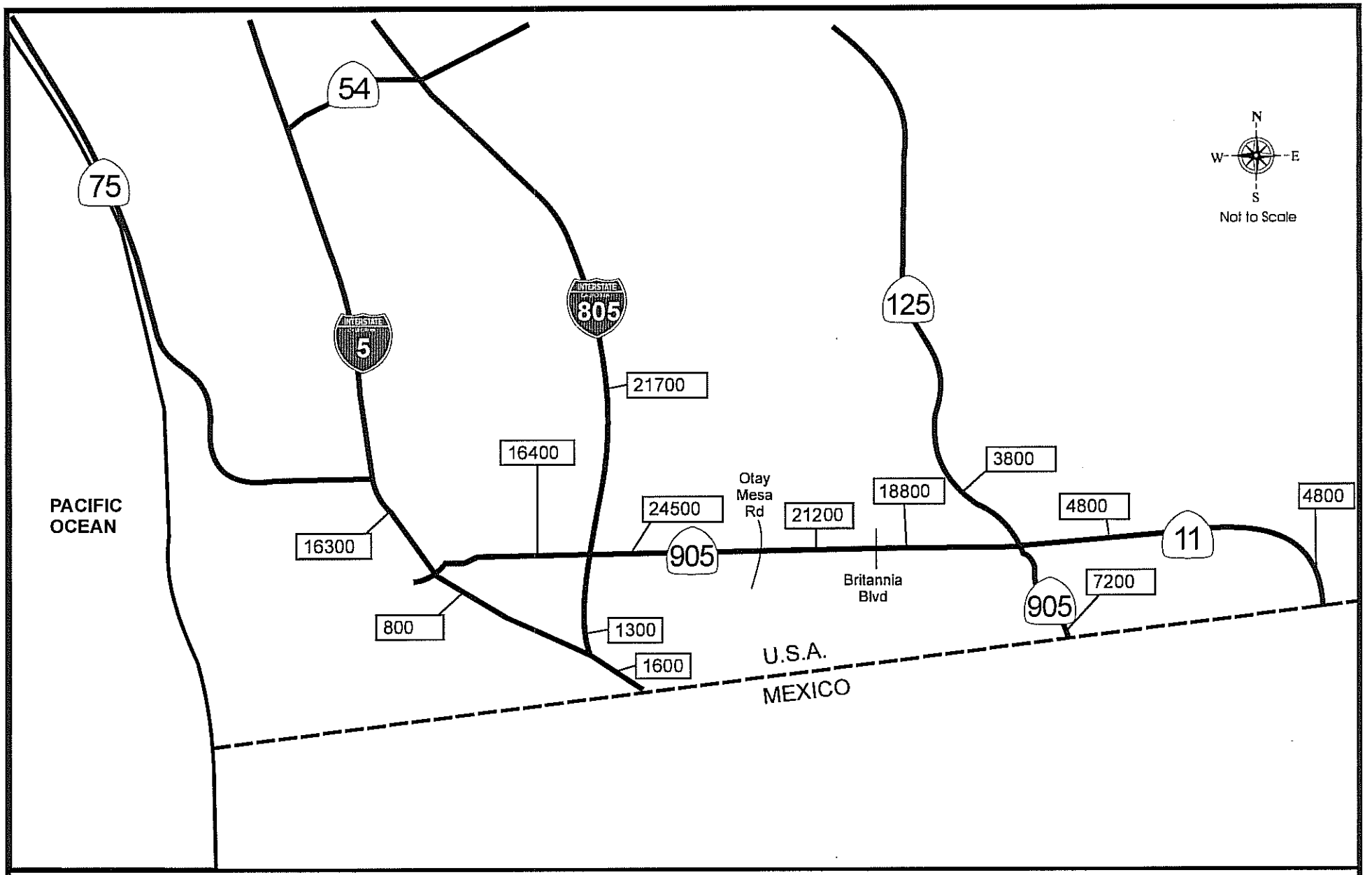


Horizon Year (2035) Average Daily Traffic -
SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-48c



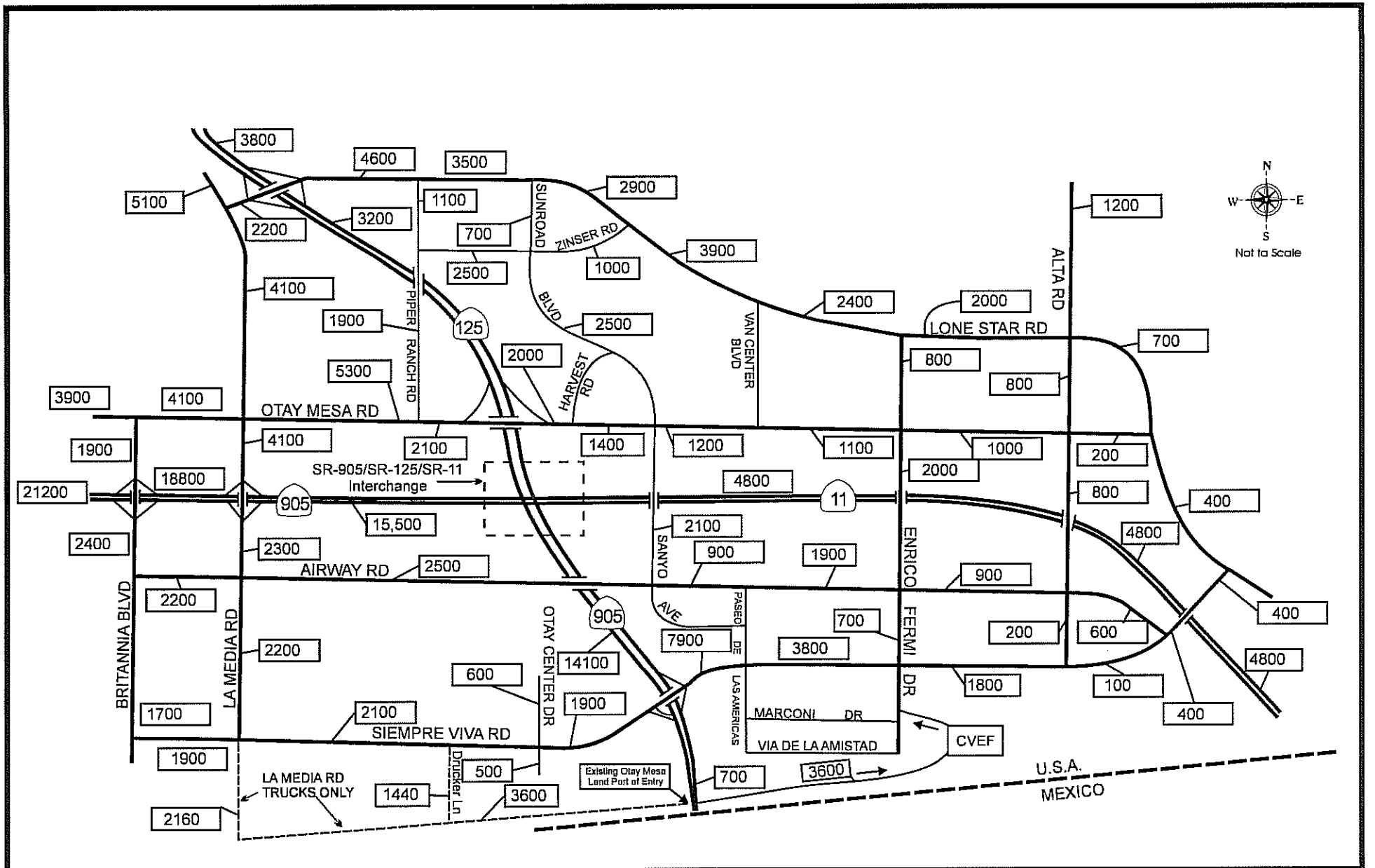
Horizon Year (2035) Daily Truck Trips -
SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-49a

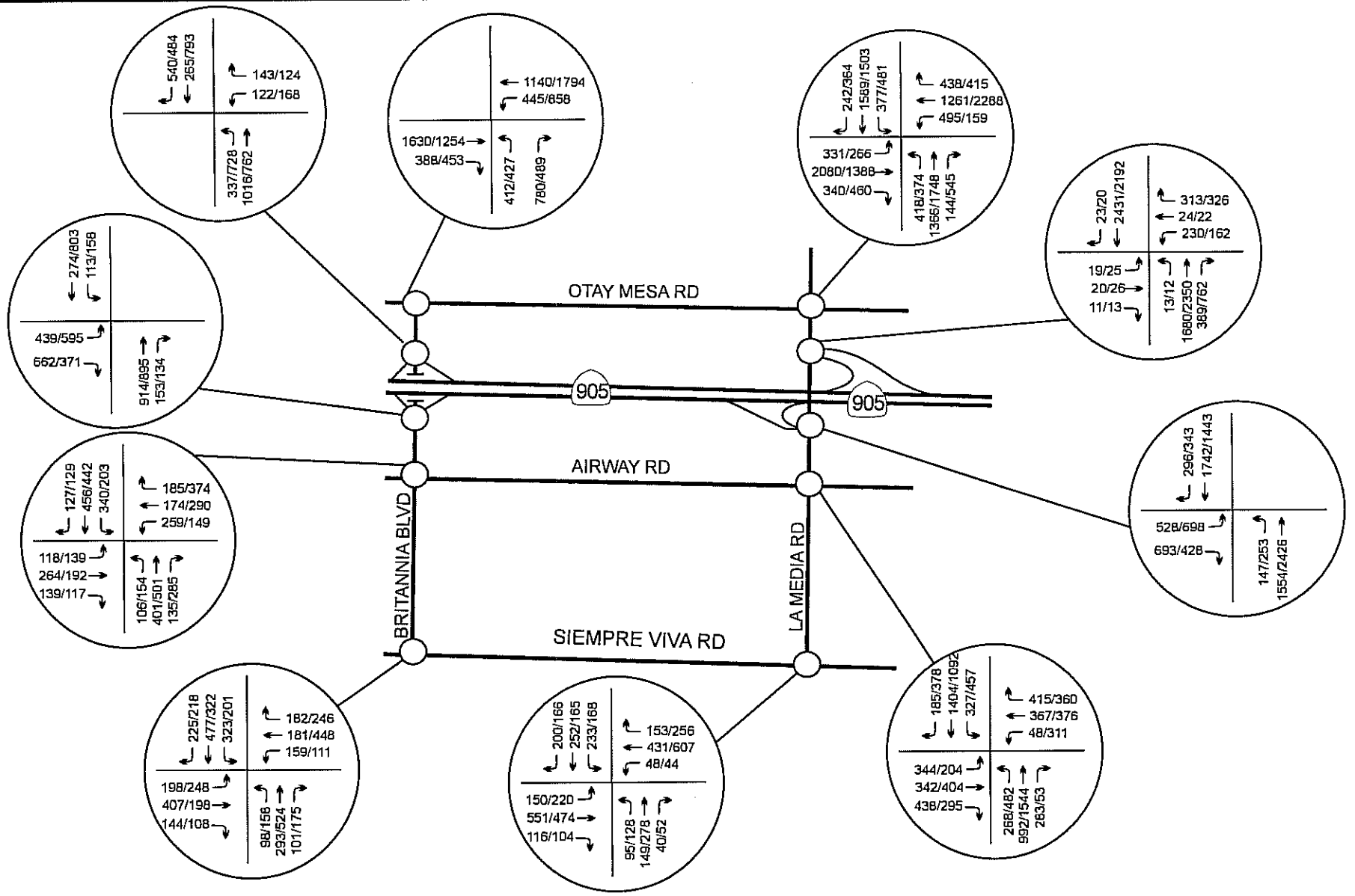


Horizon Year (2035) Daily Truck Trips - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-49b

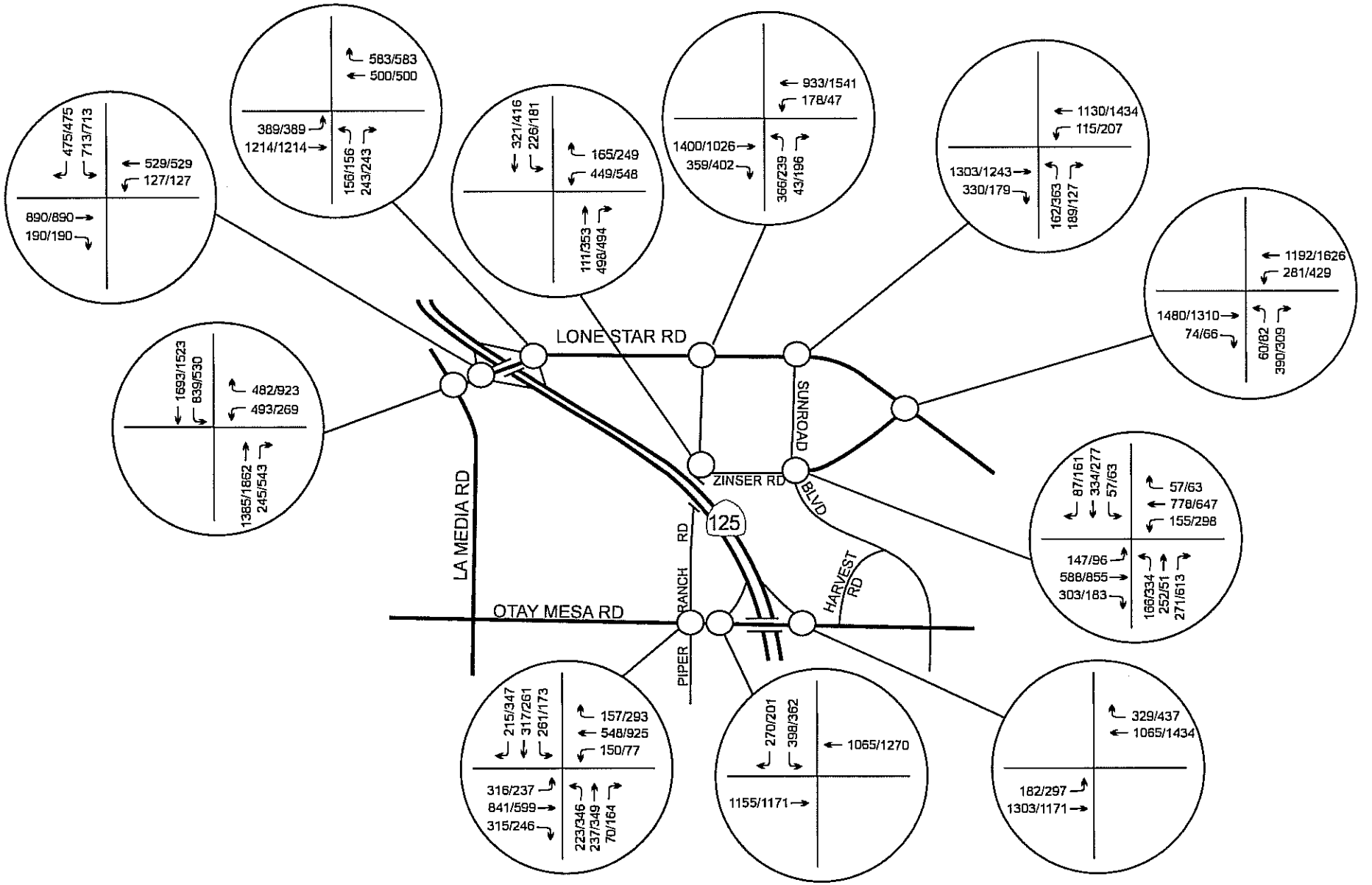


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-50a

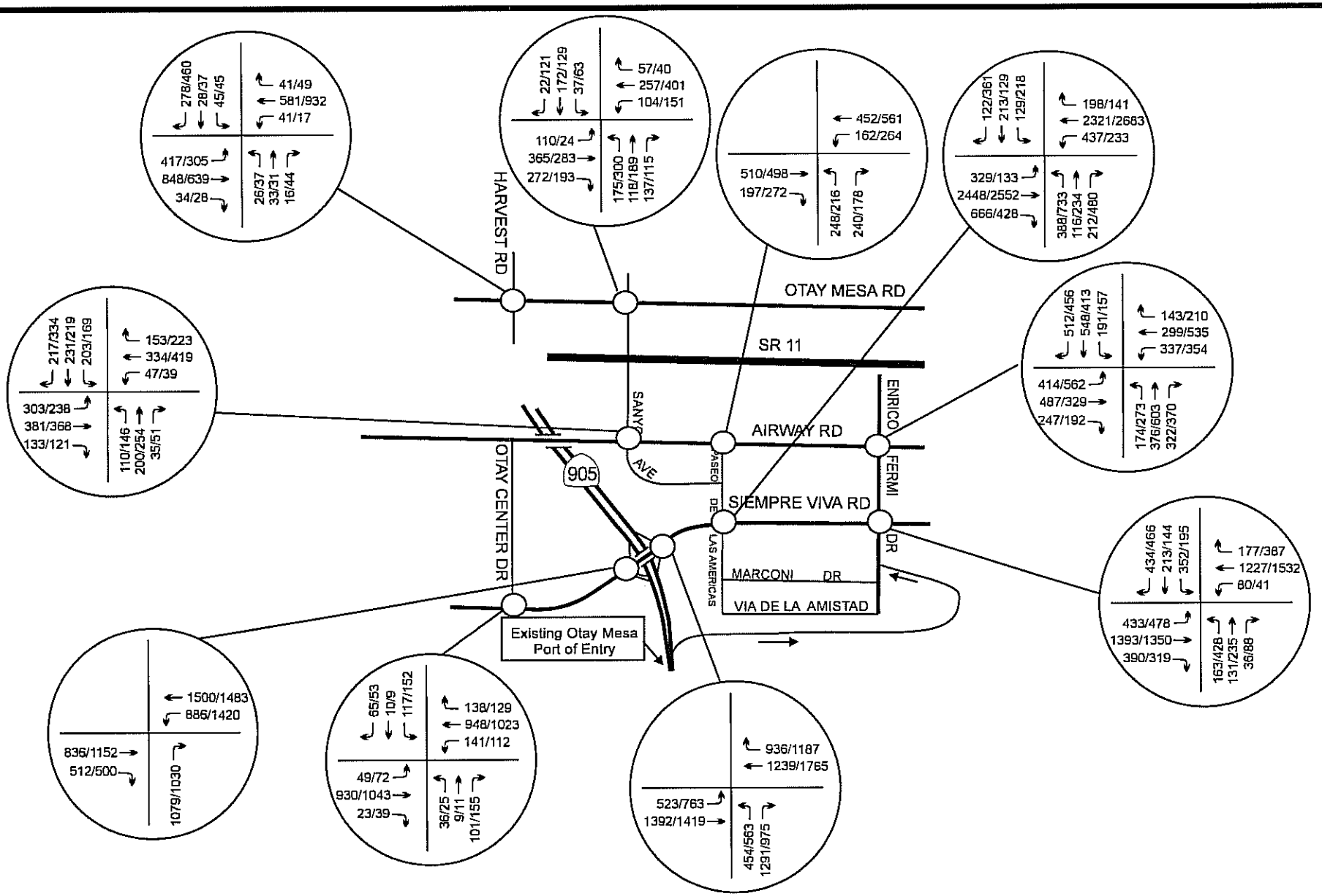


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-50b

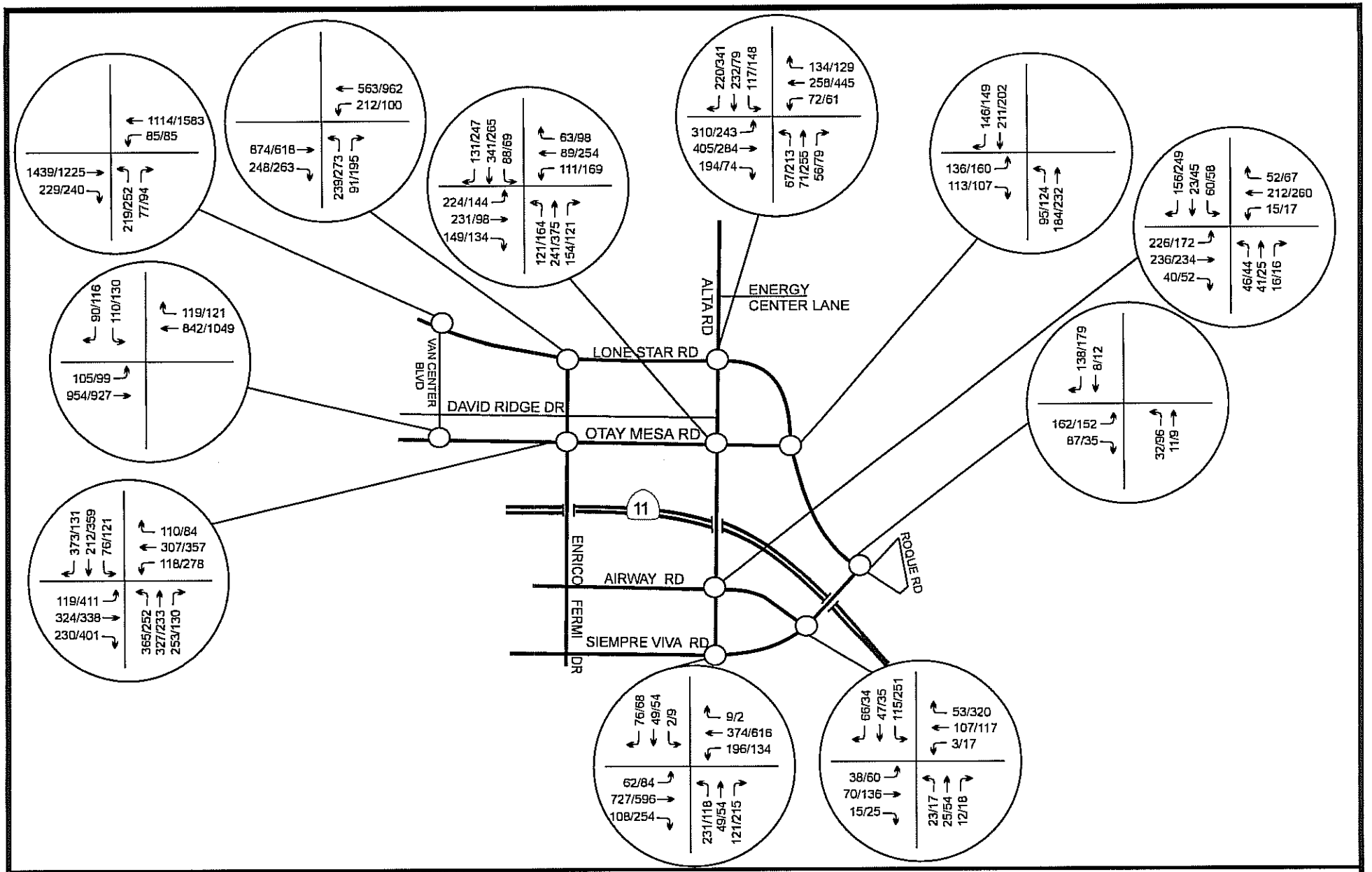


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-50c

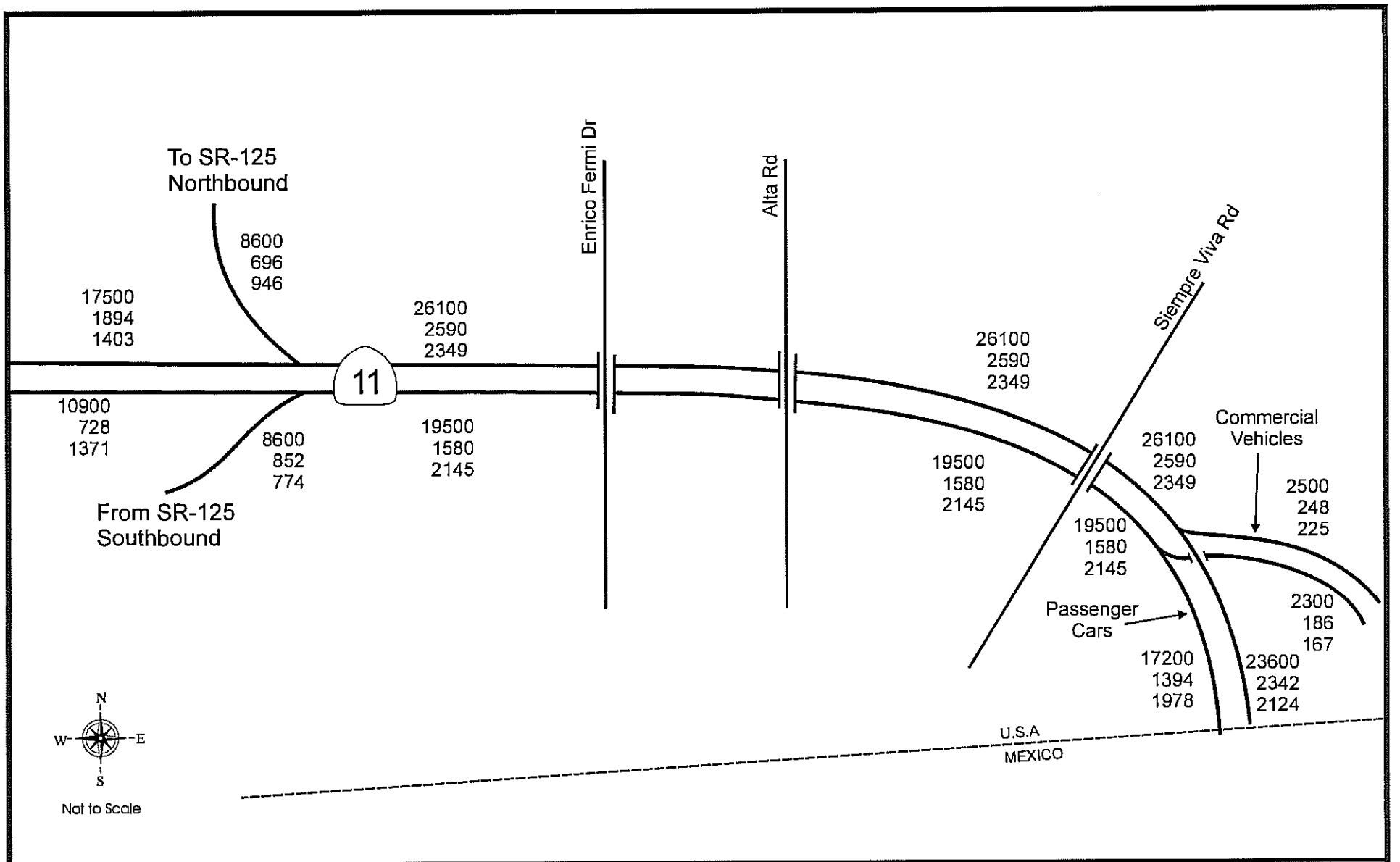


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-125 Connector/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-50d

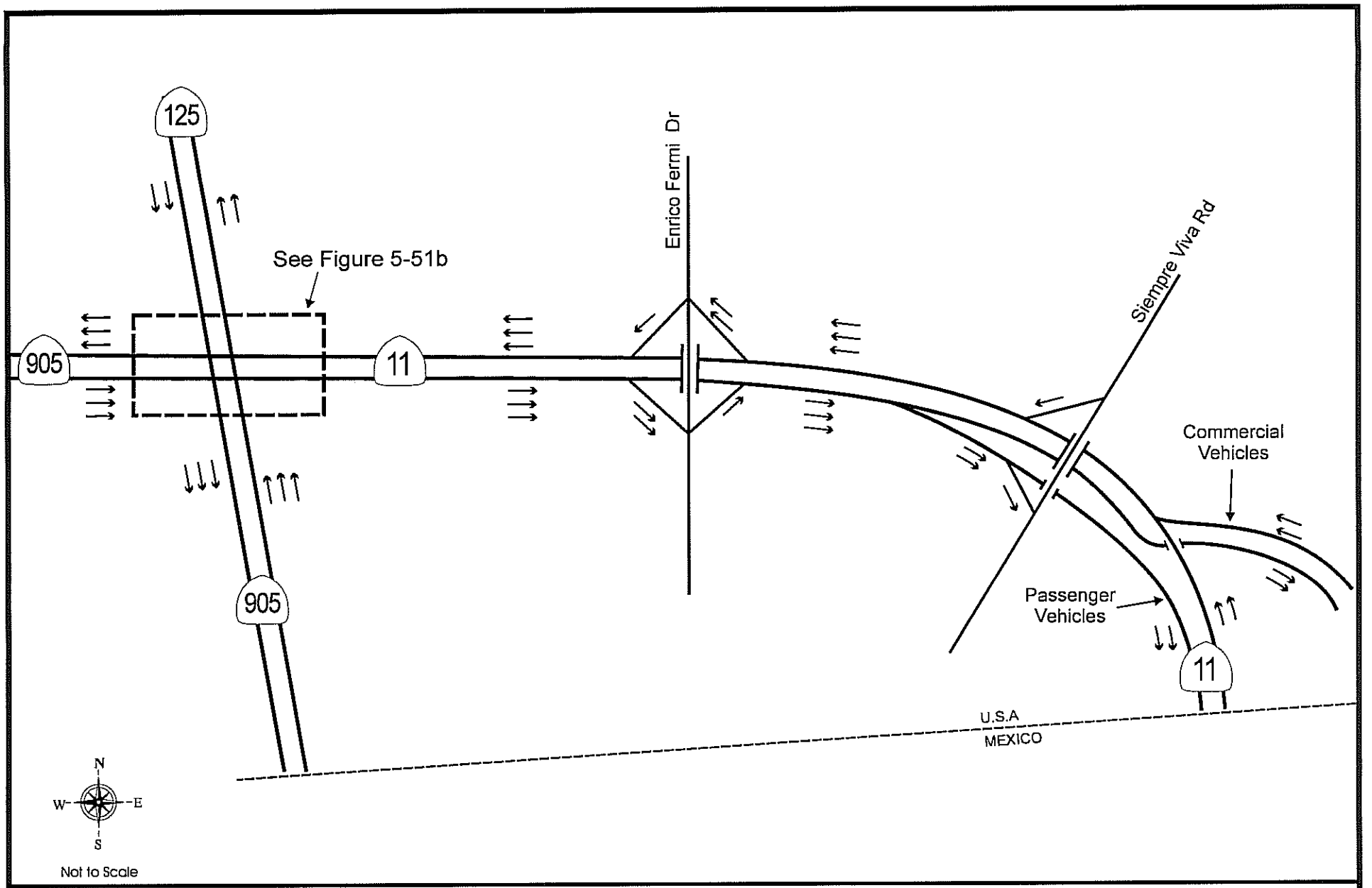


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-125 Connector/No Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-50e

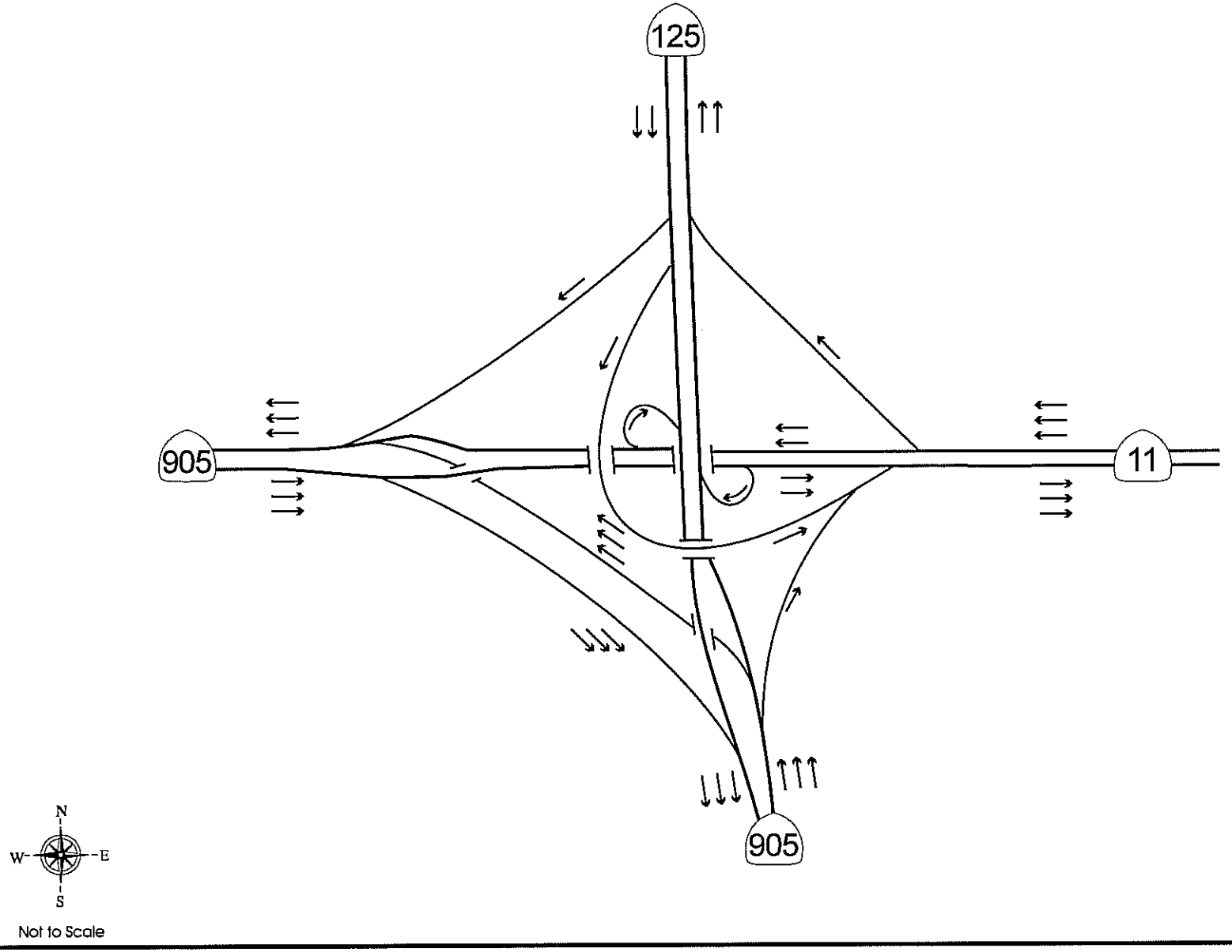


Horizon Year (2035) SR-11 Lane Geometry
Full Interchange/Two Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 5-51a

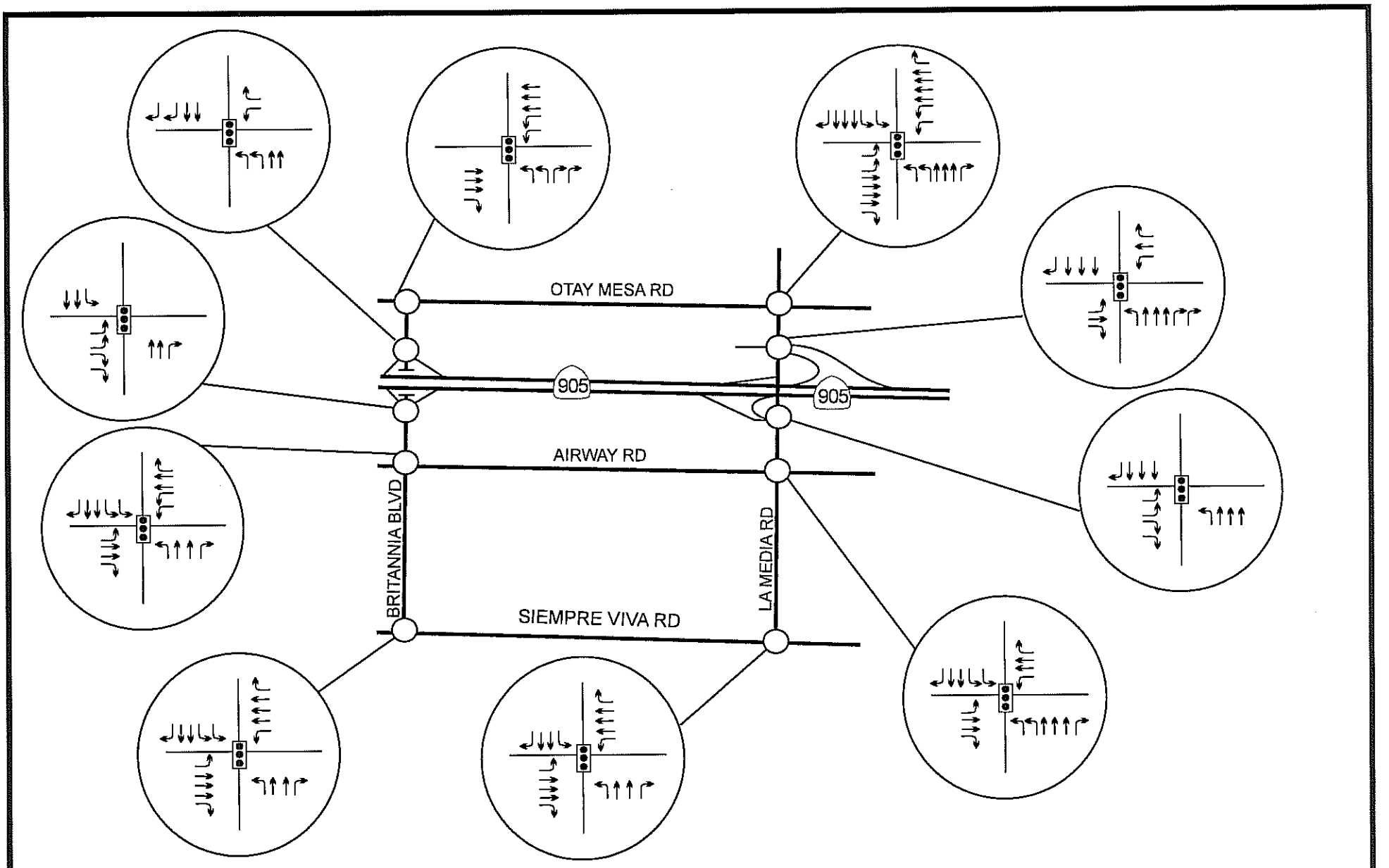


Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
Full Interchange/Two Interchange Design Variation

Legend

← Number of Lanes

Figure 5-51b

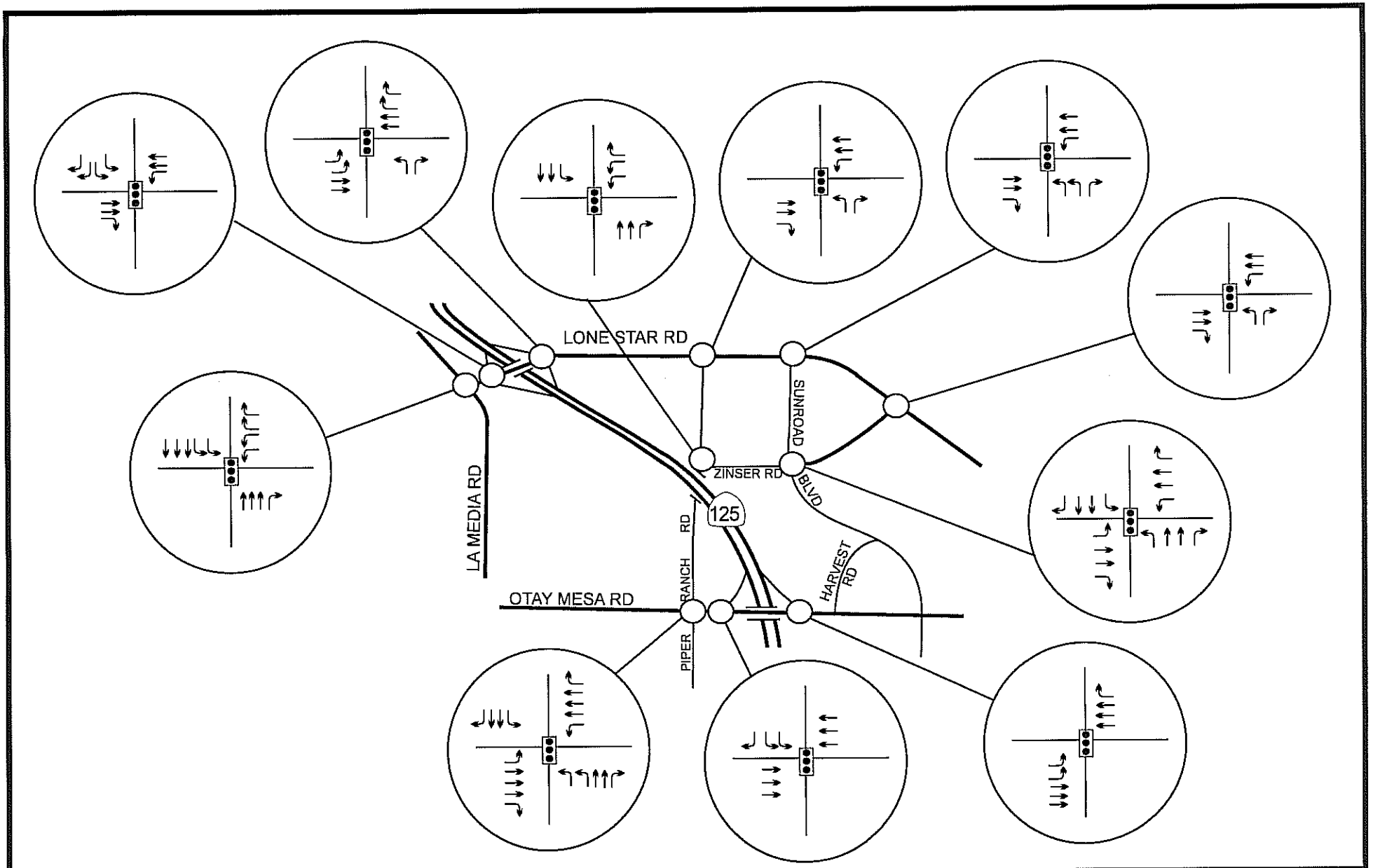


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-52a

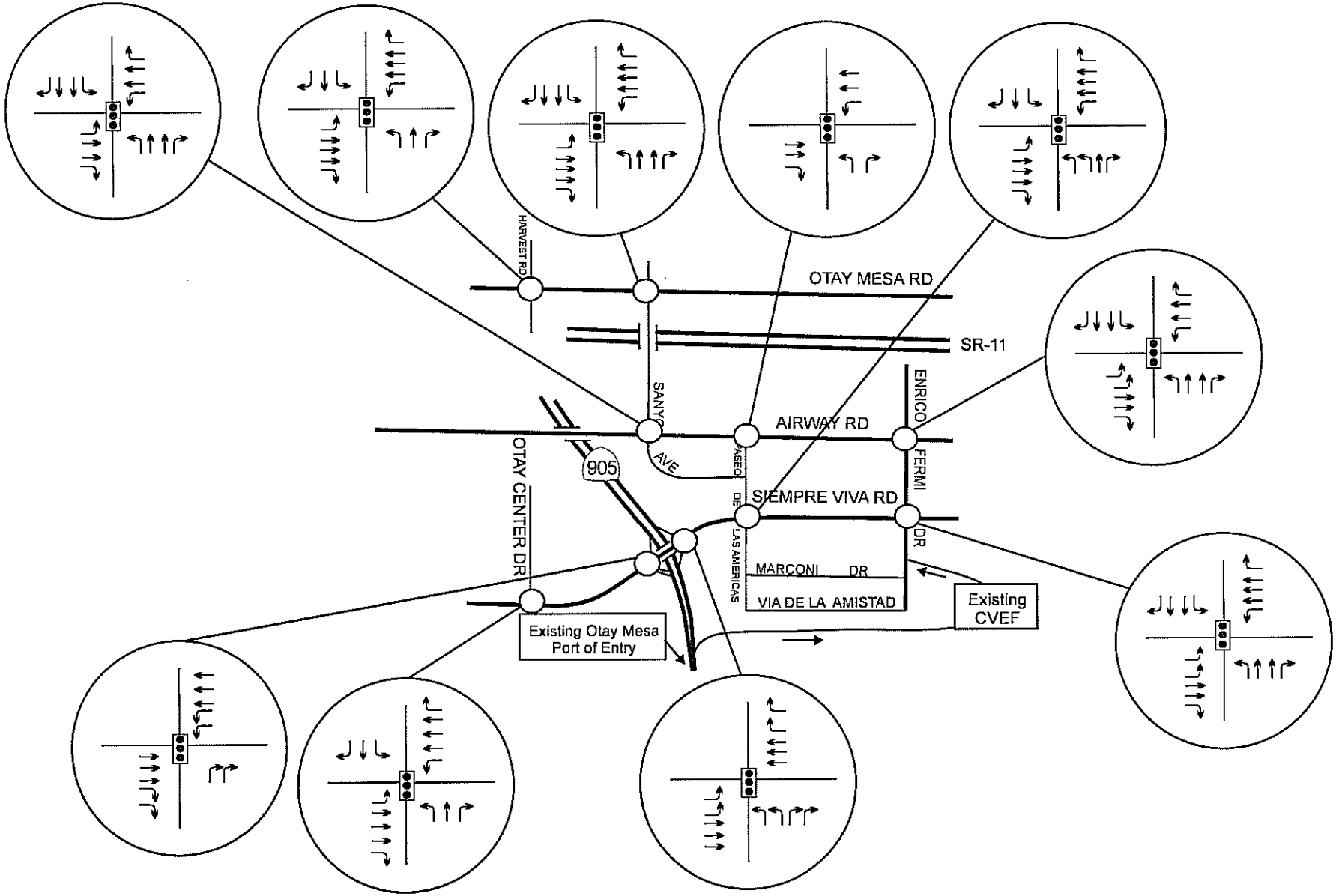


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-52b

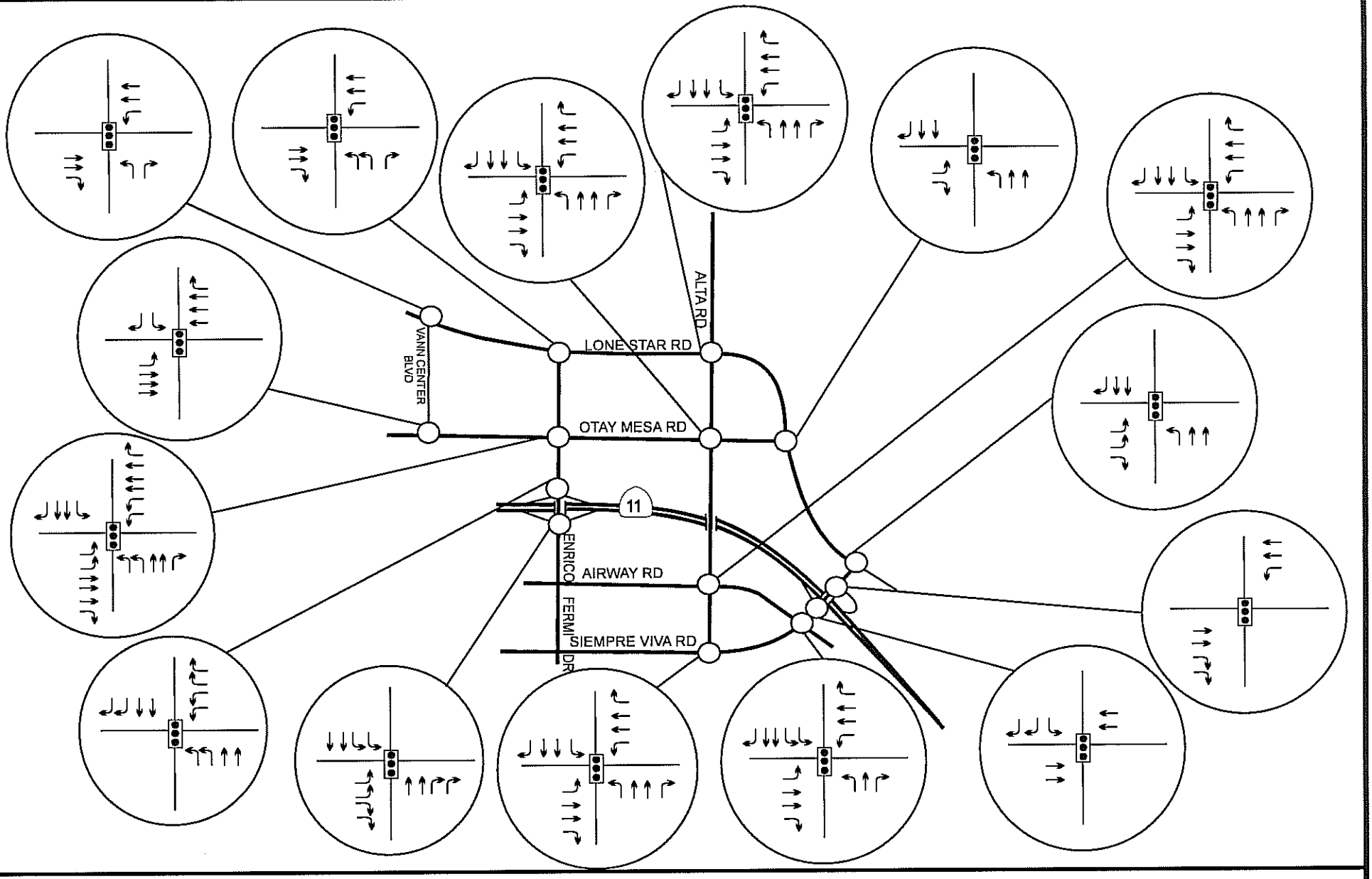


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-52c

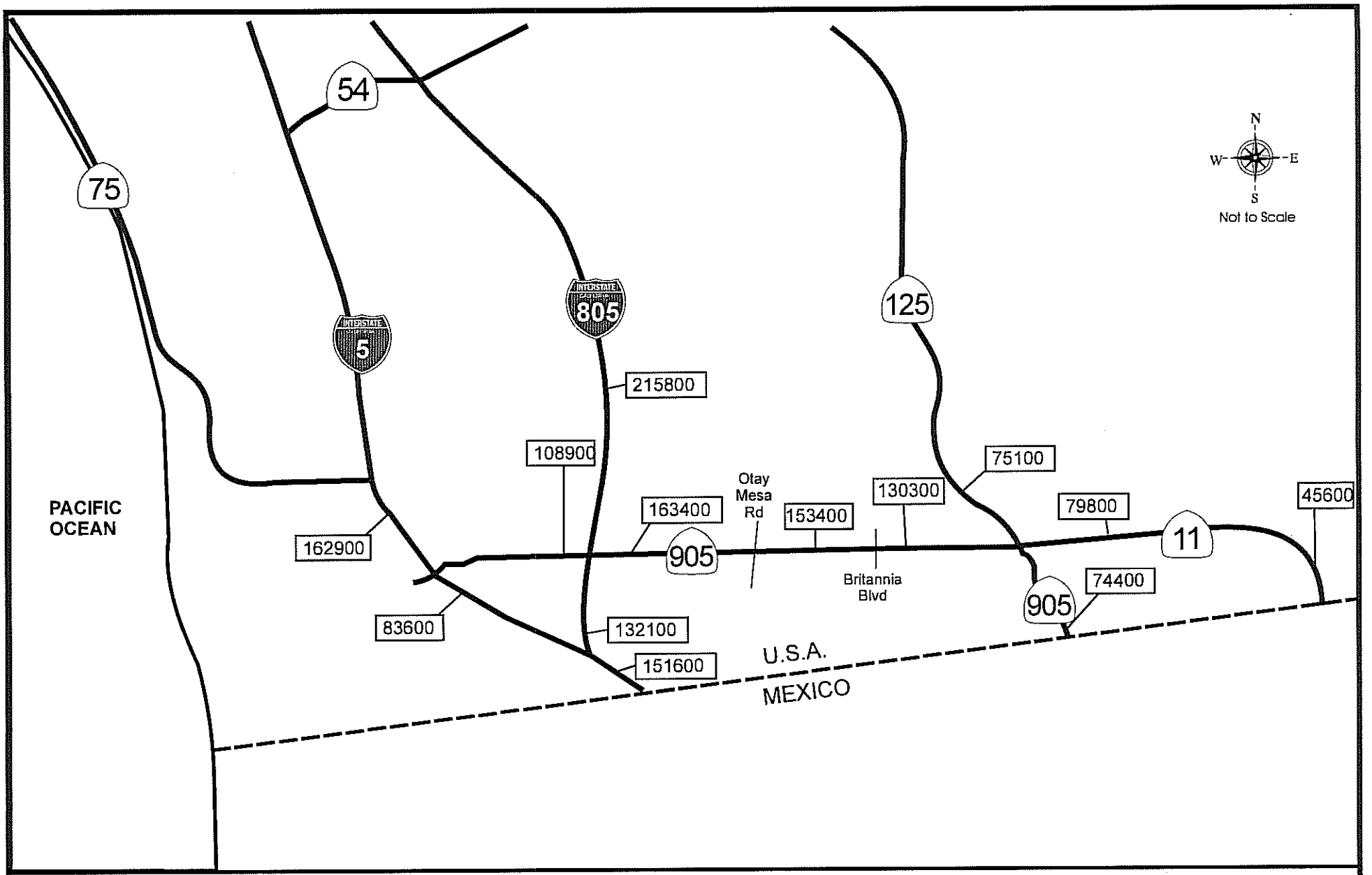


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/Two Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-52d



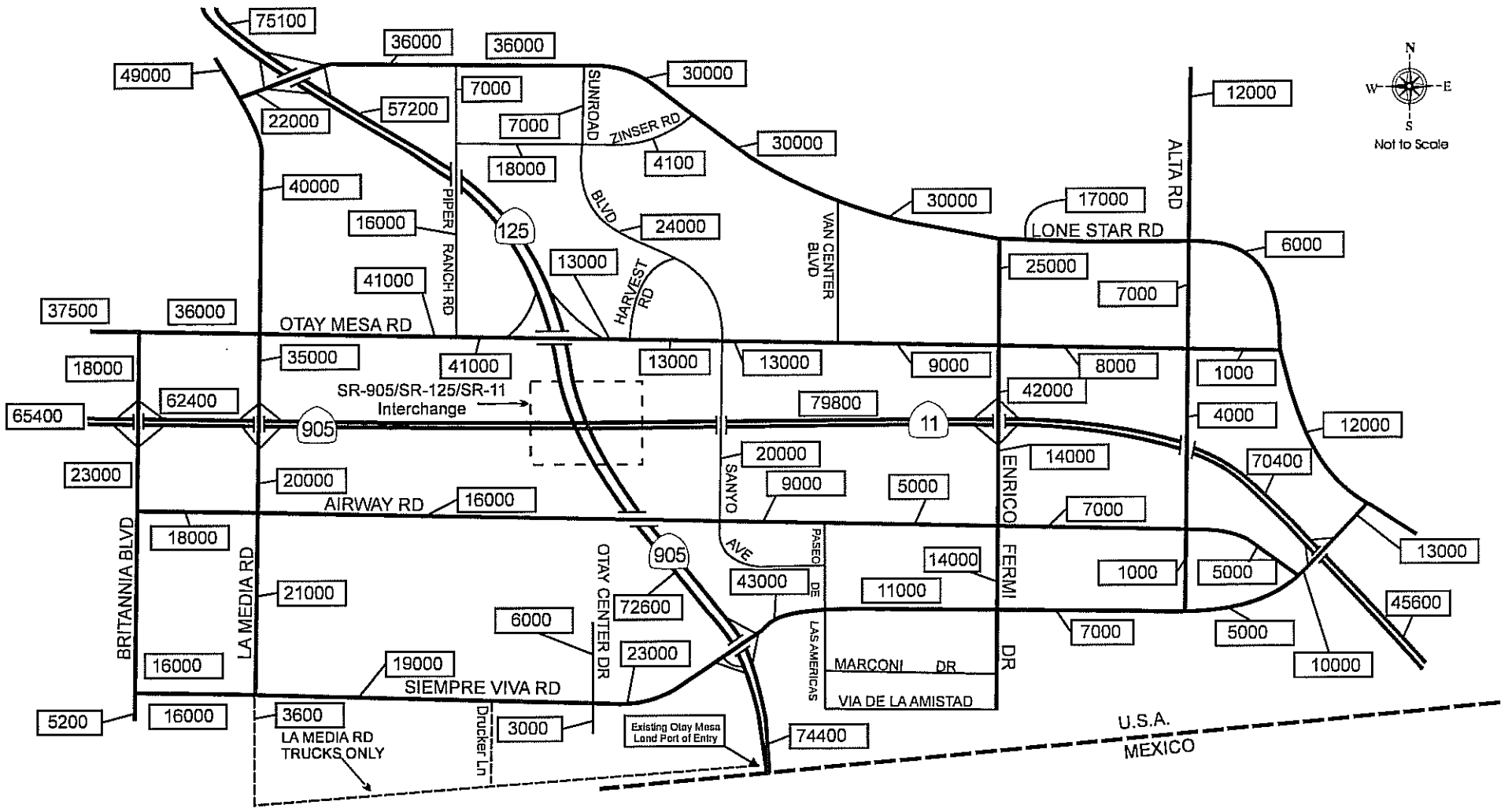
Horizon Year (2035) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-53a

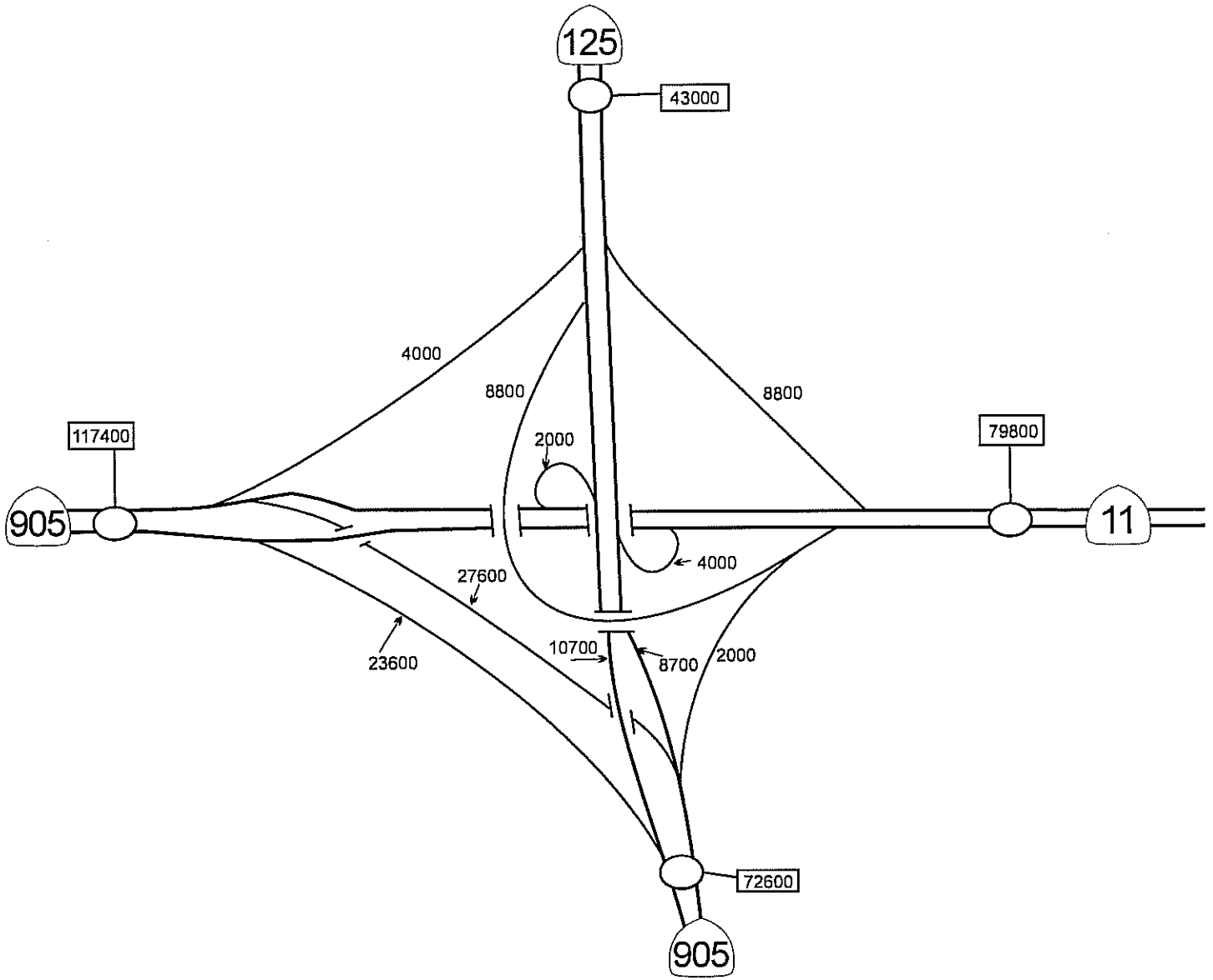


Horizon Year (2035) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Freeway/Tollway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-53b

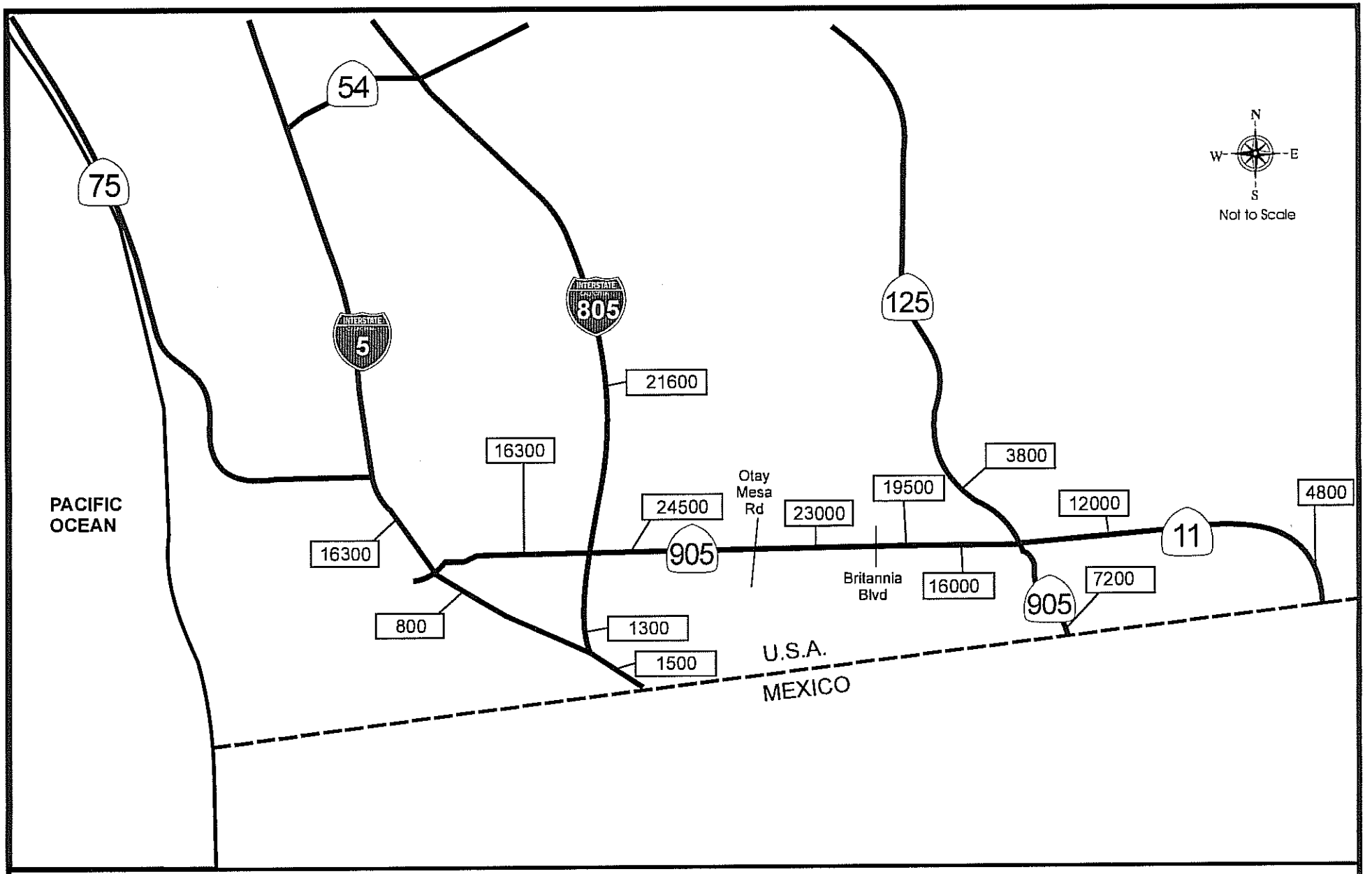


Horizon Year (2035) Average Daily Traffic - Full Interchange / Two Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-53c



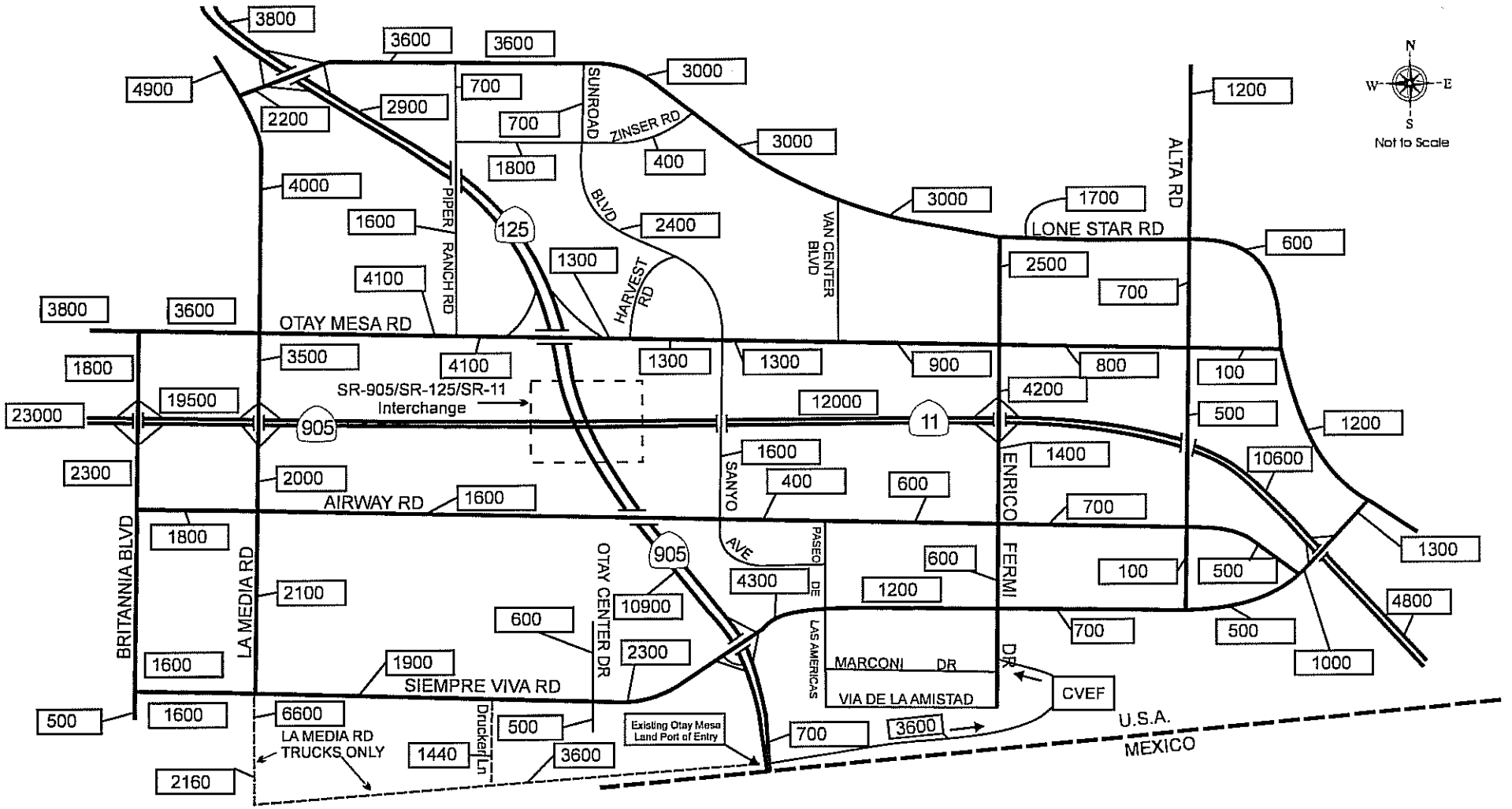
Horizon Year (2035) Daily Truck Trips - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-54a

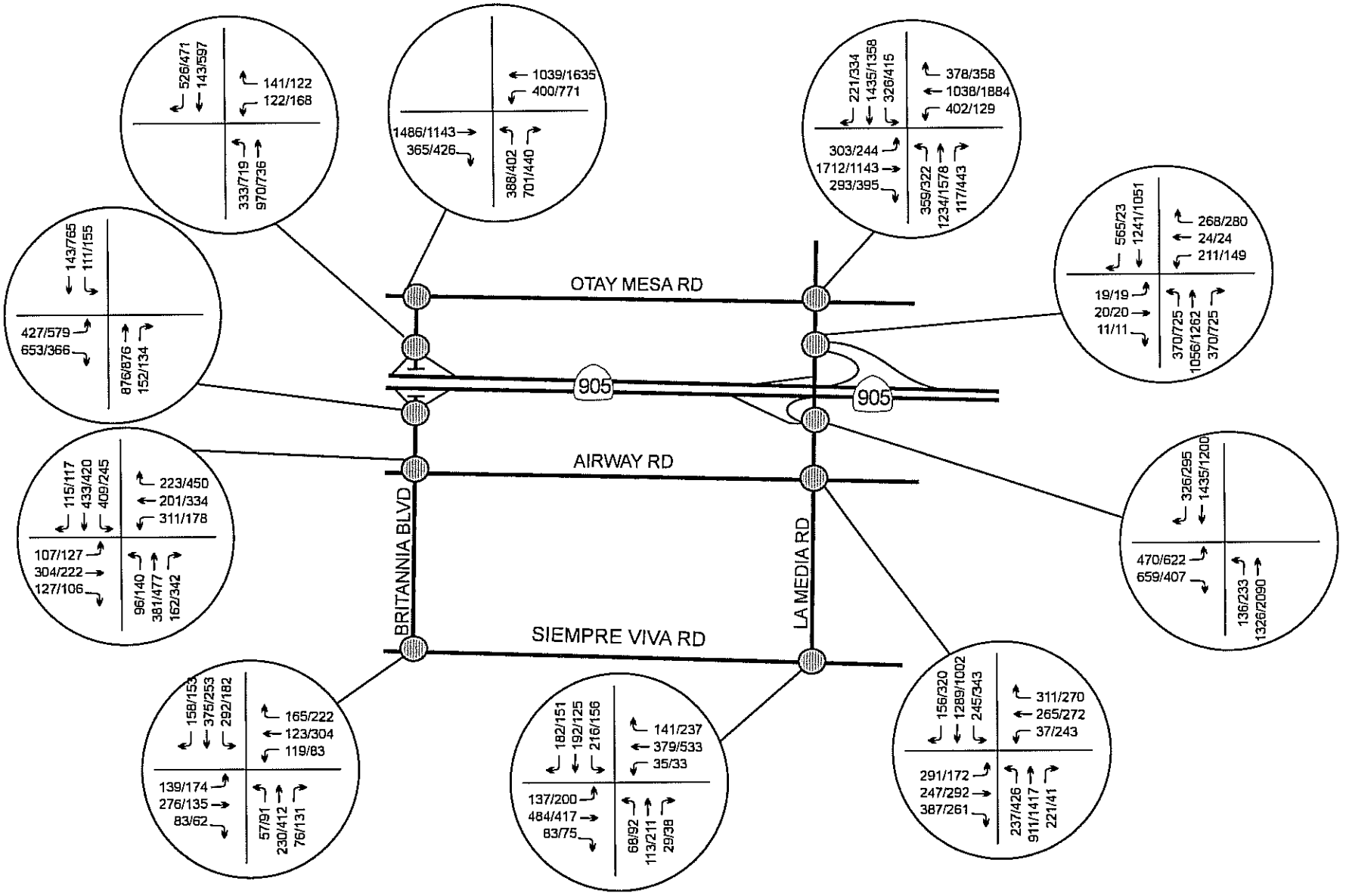


Horizon Year (2035) Daily Truck Trips - Full Interchange / Two Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-54b

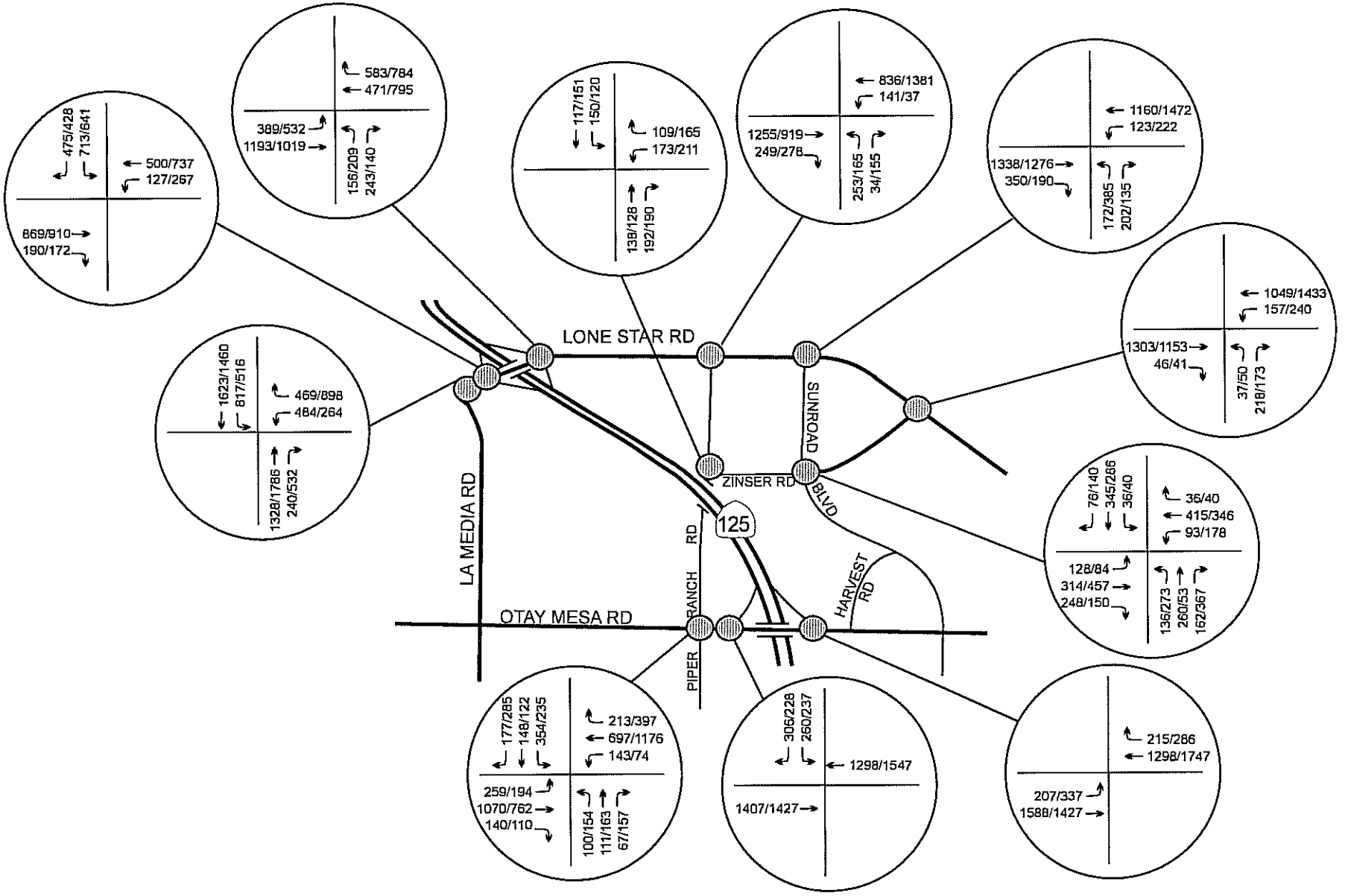


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Alternative

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-55a

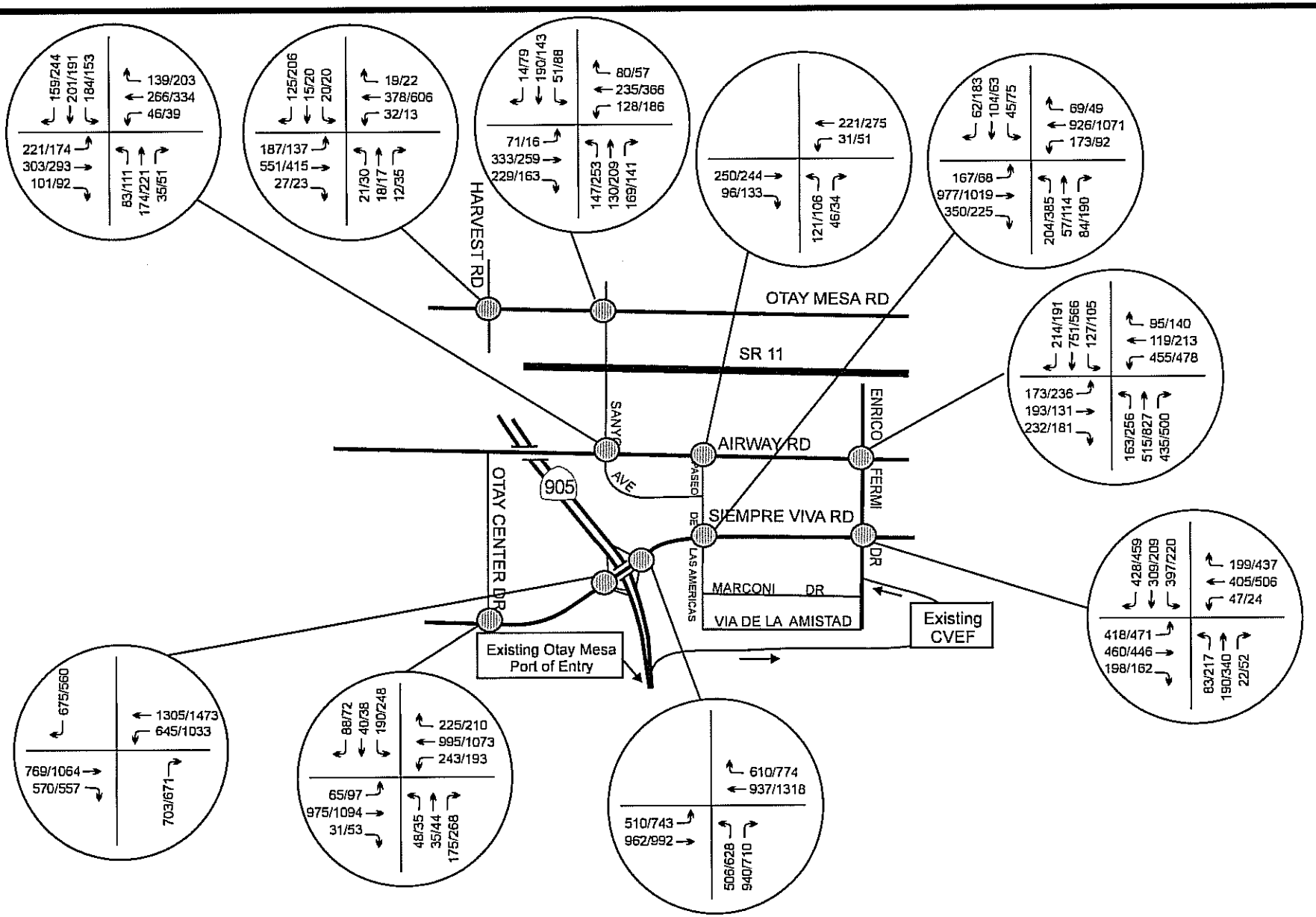


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-55b

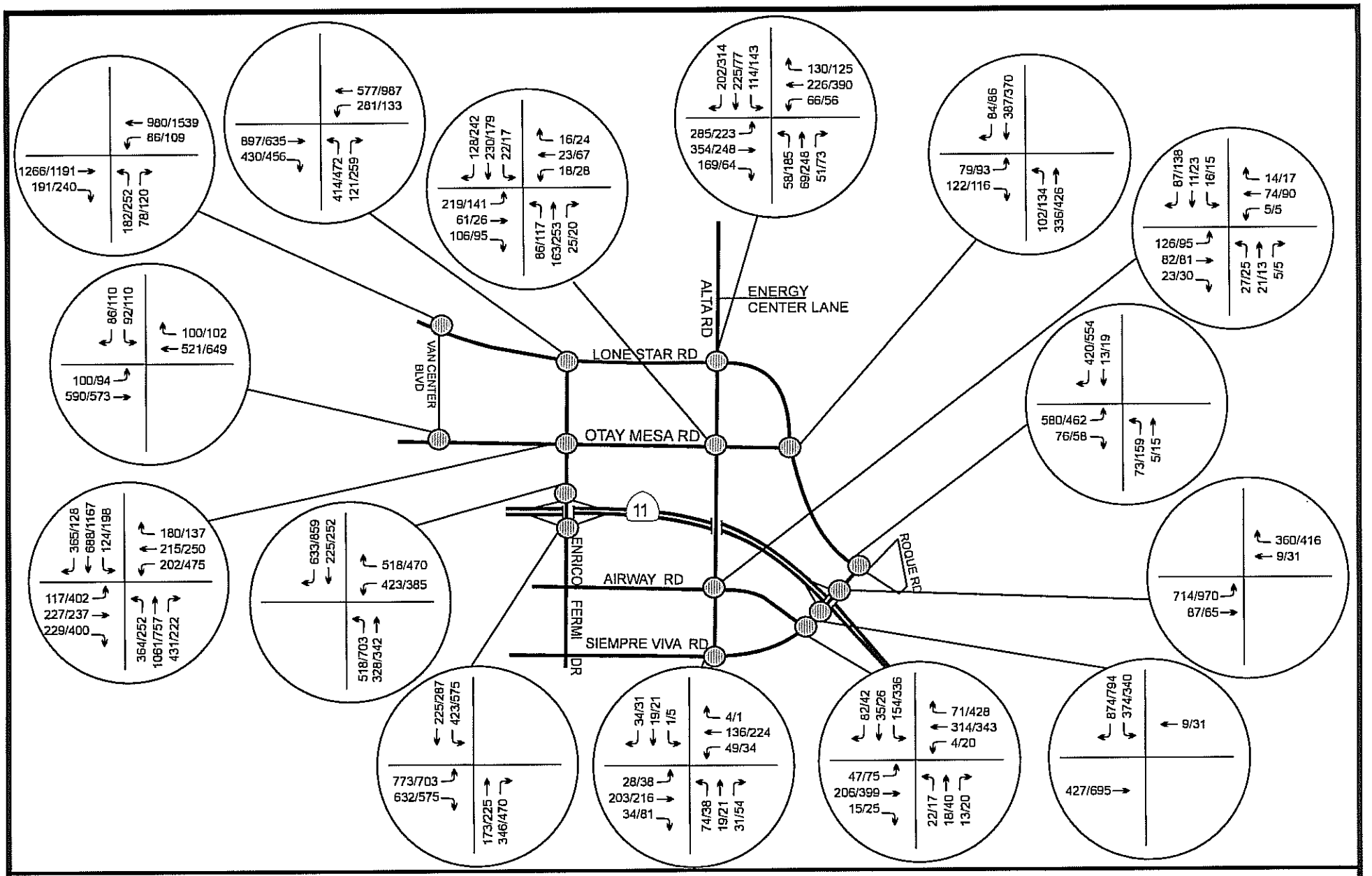


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-55c

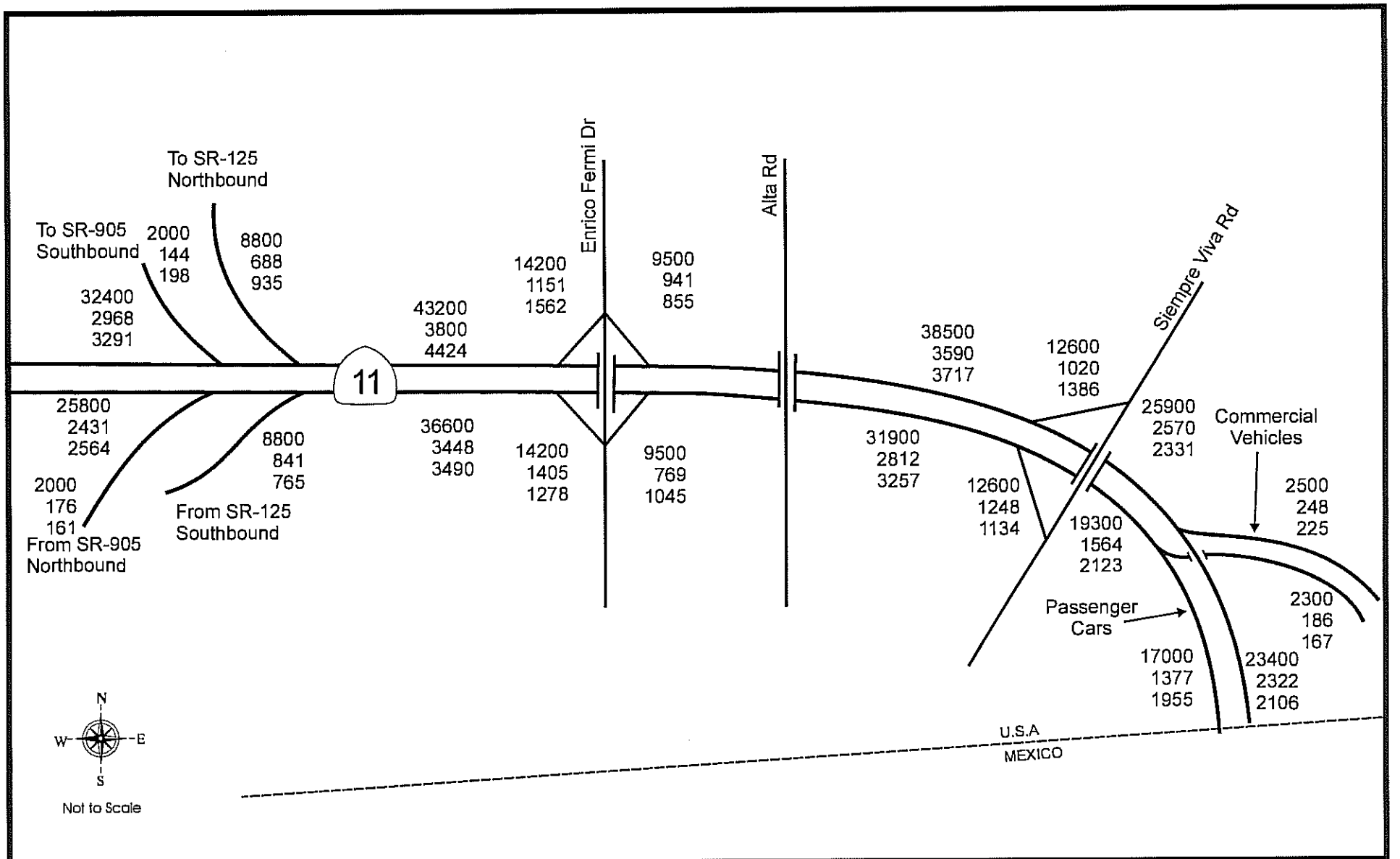


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / Two Interchange Alternative

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-55d

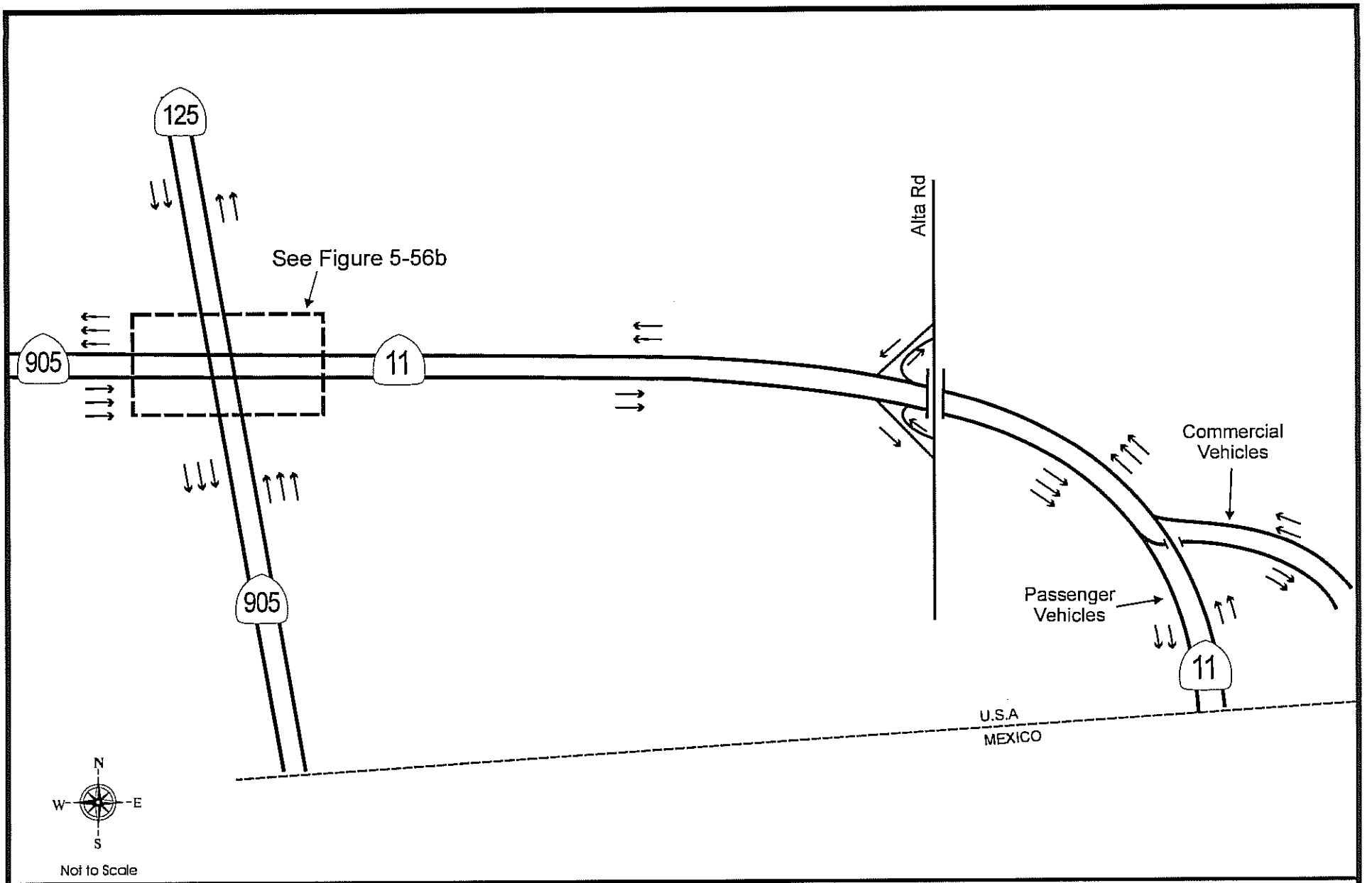


Horizon Year (2035) AM/PM Peak Hour Traffic
SR-11/Mainline and Ramps - Full Interchange/Two Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-55e

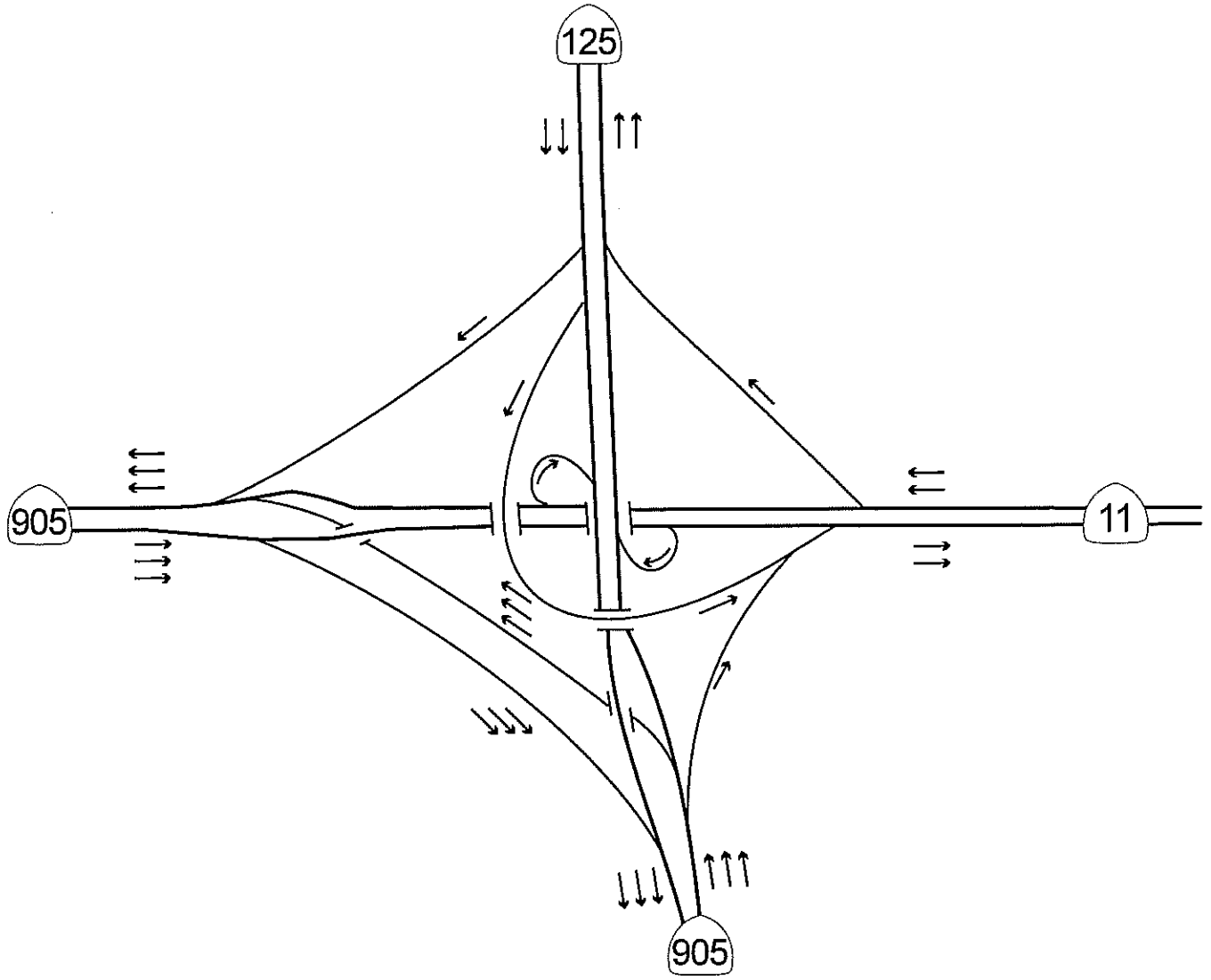


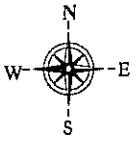
Horizon Year (2035) SR-11 Lane Geometry
Full Interchange/One Interchange Design Variation

Legend

← Number of Lanes

Figure 5-56a





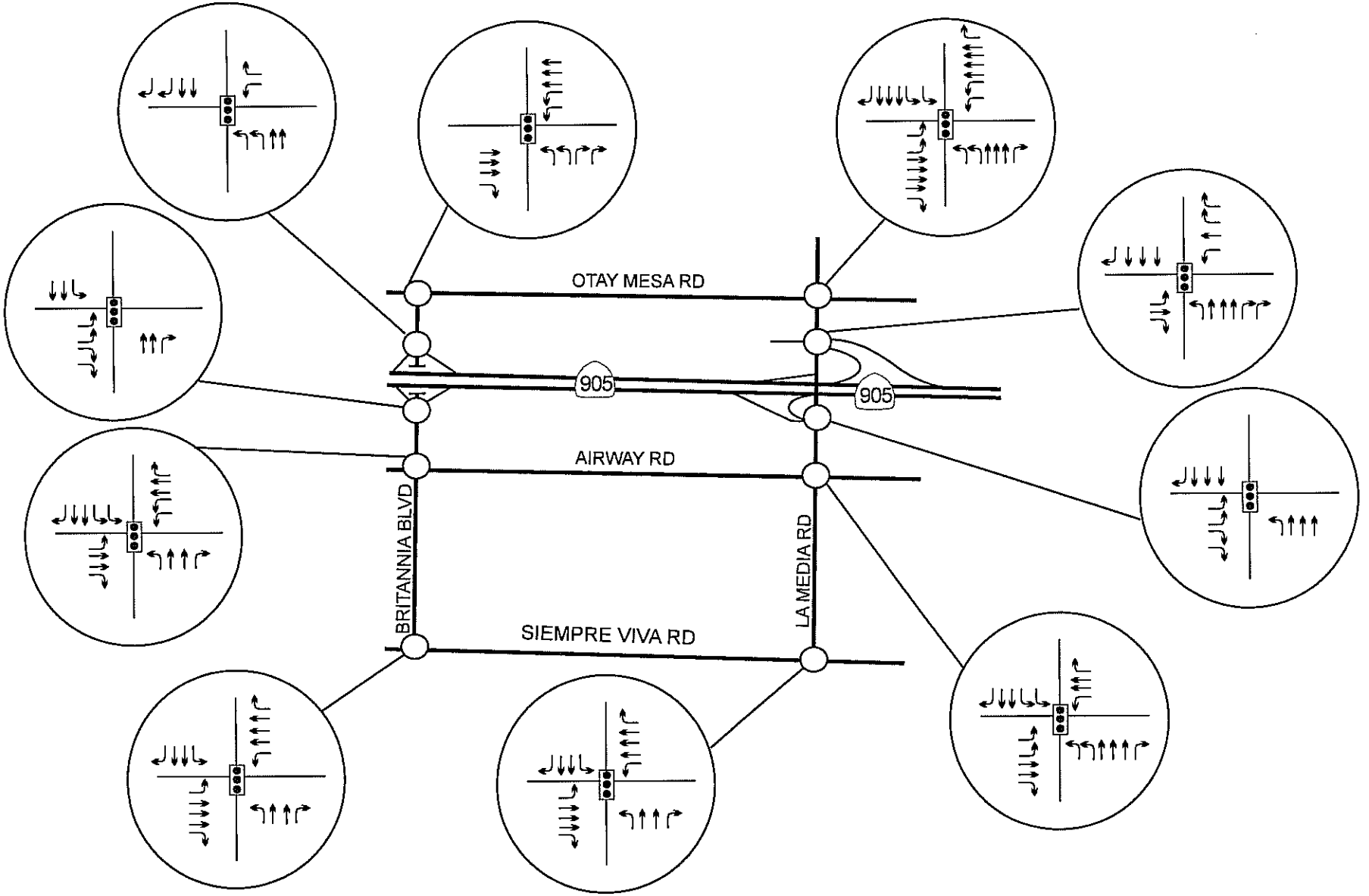
Not to Scale

Horizon Year (2035) SR-905/SR-125/SR-11 Lane Geometry
Full Interchange/One Interchange Design Variation

Figure 5-56b

Legend

← Number of Lanes

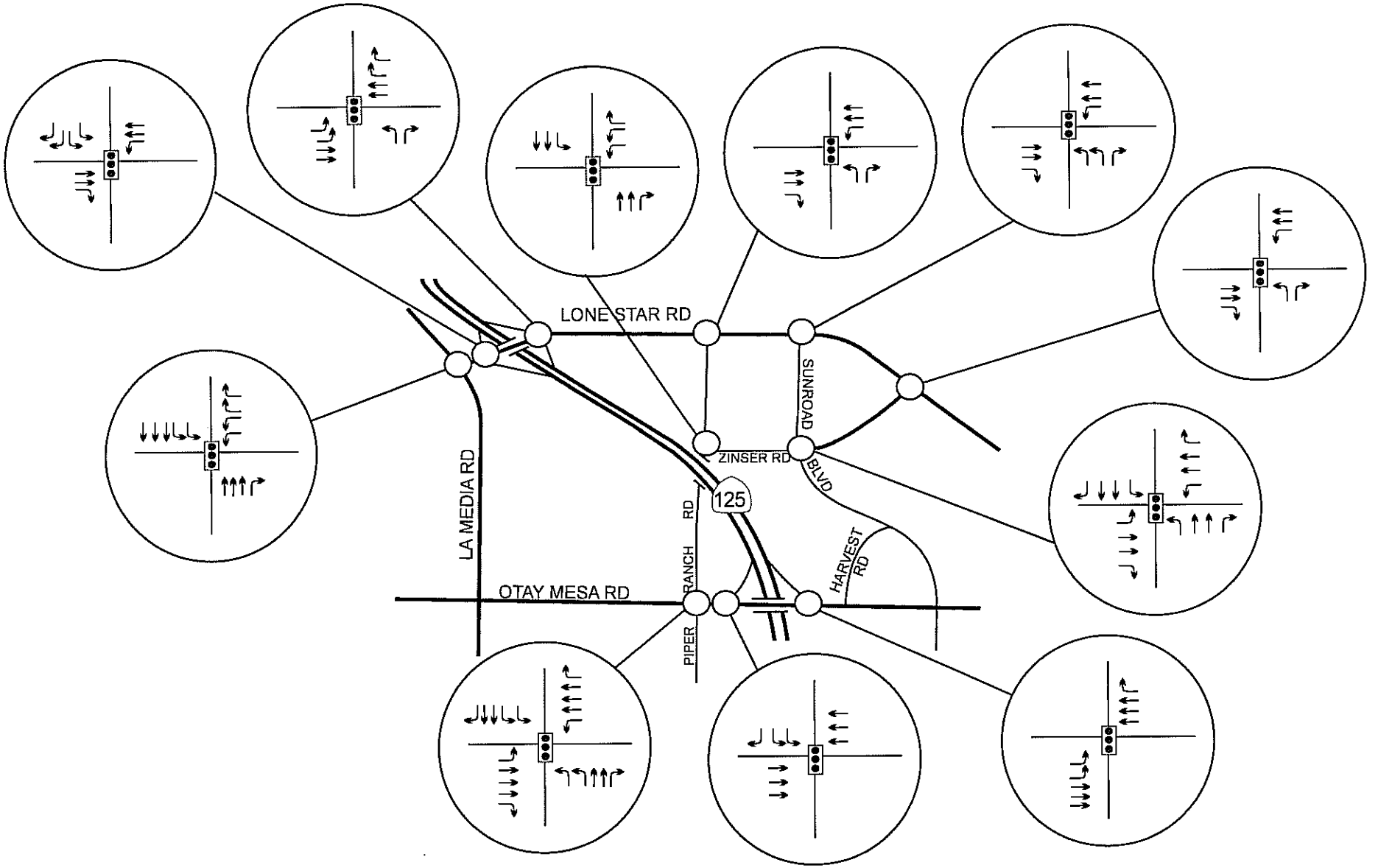


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-57a

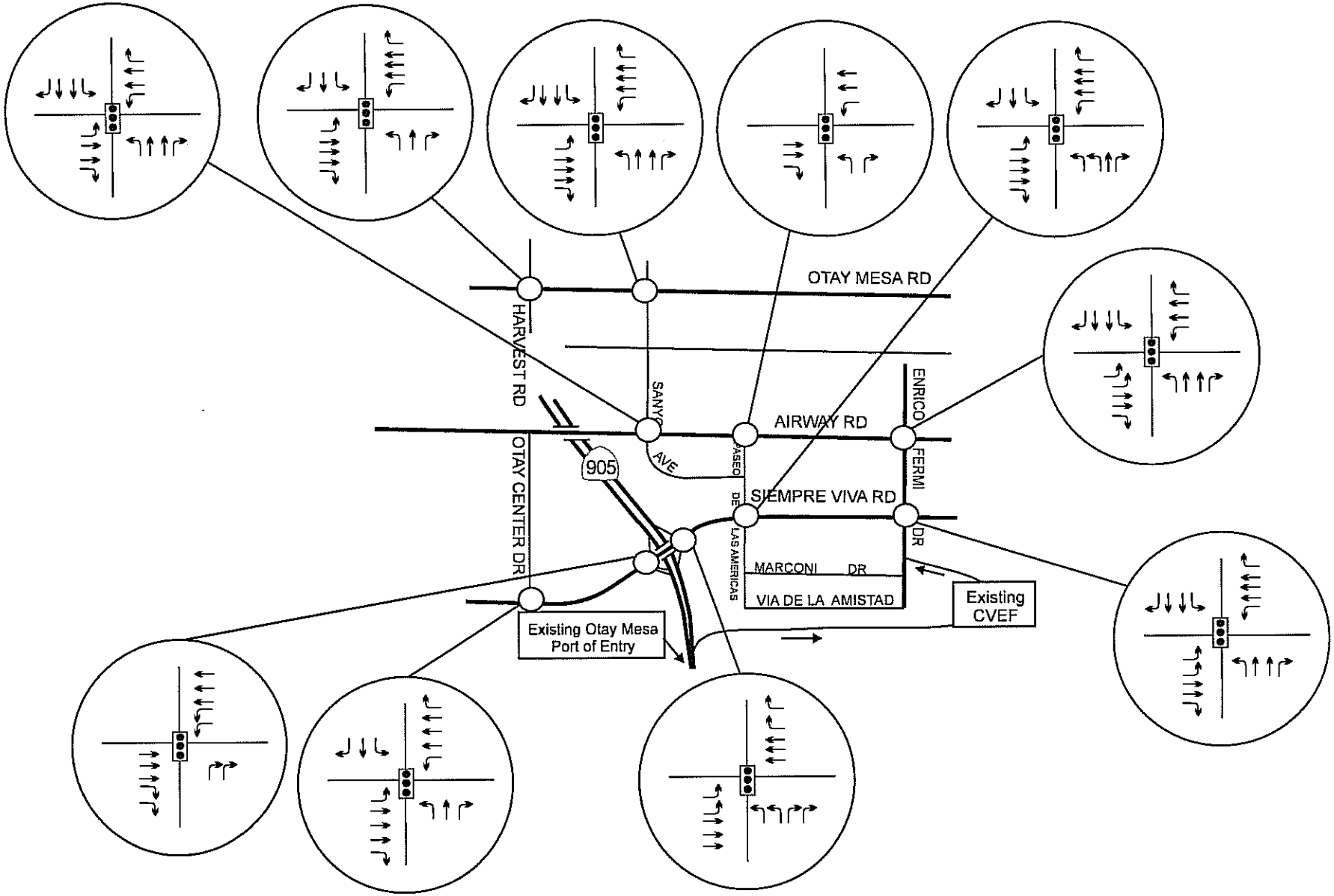


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-57b

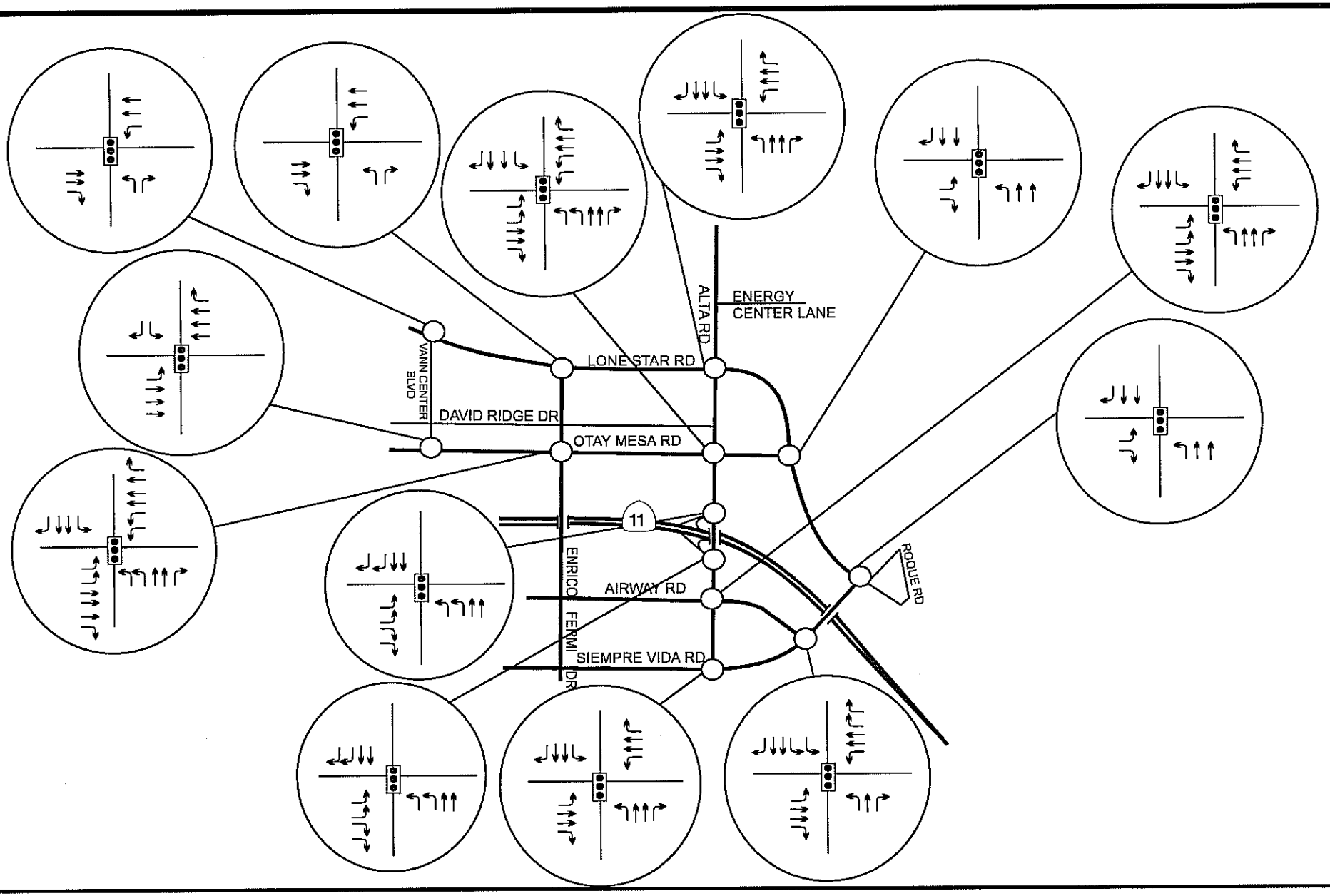


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-57c

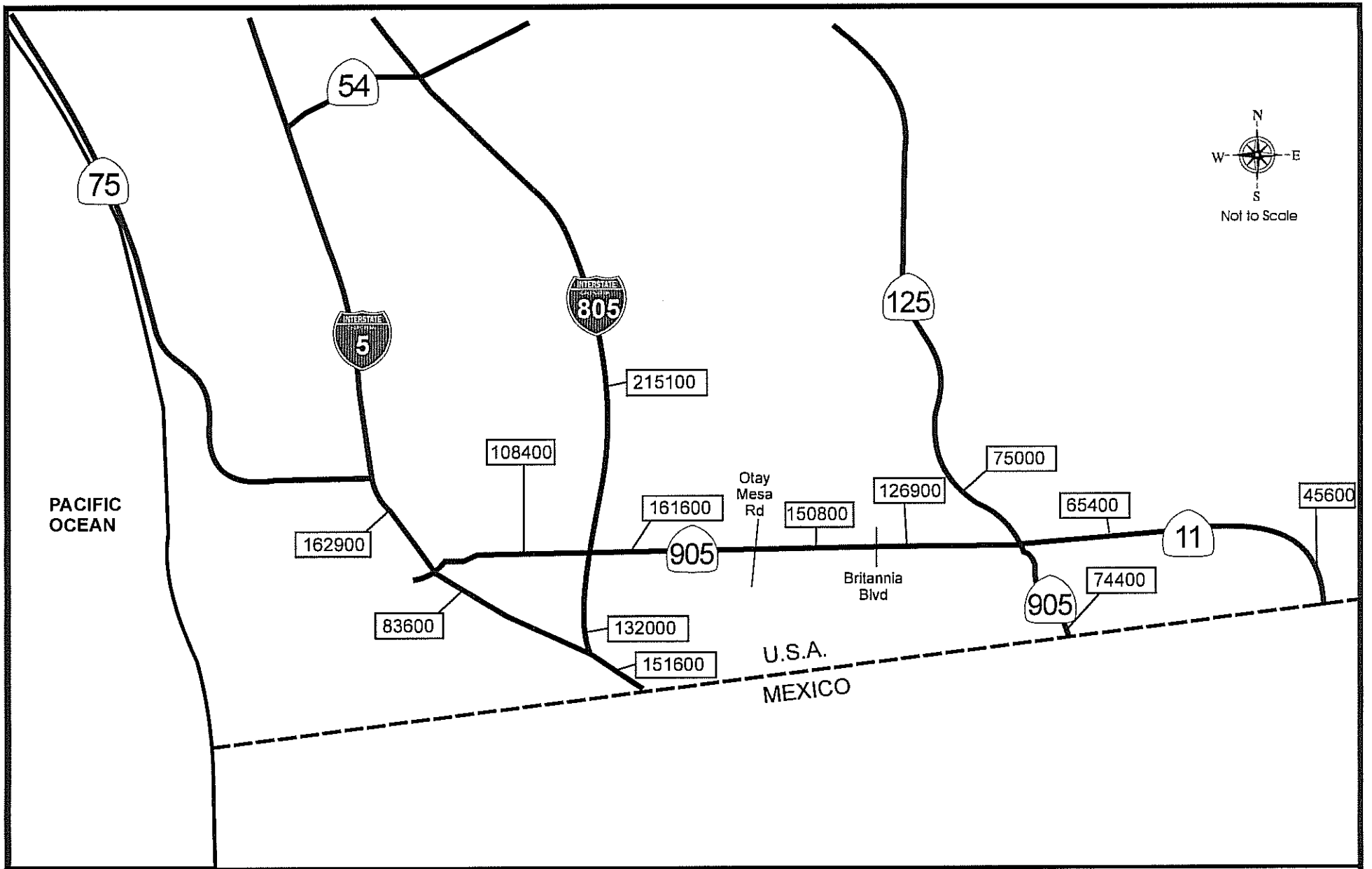


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/One Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-57d



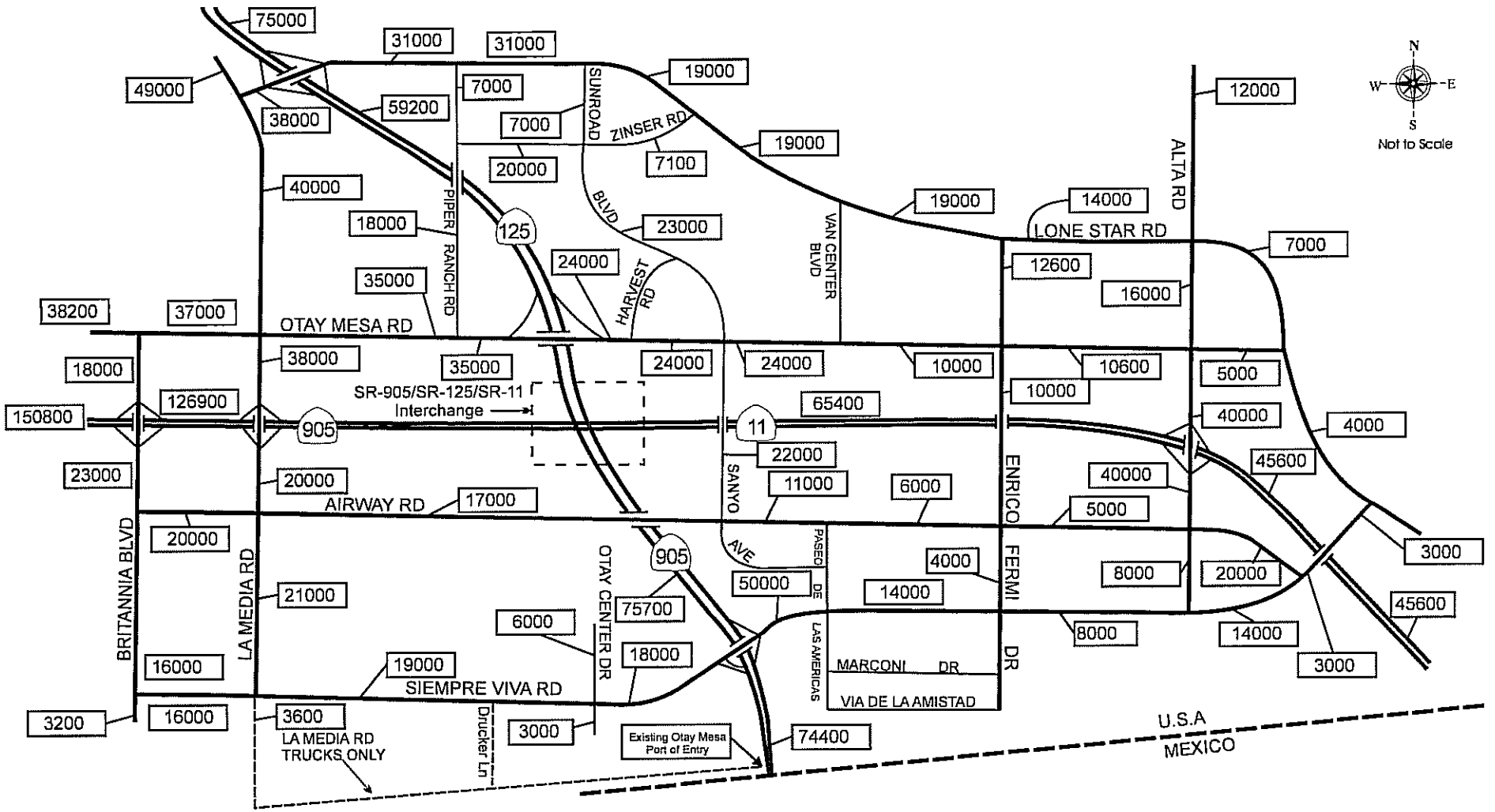
Horizon Year (2035) Average Daily Traffic - Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-58a

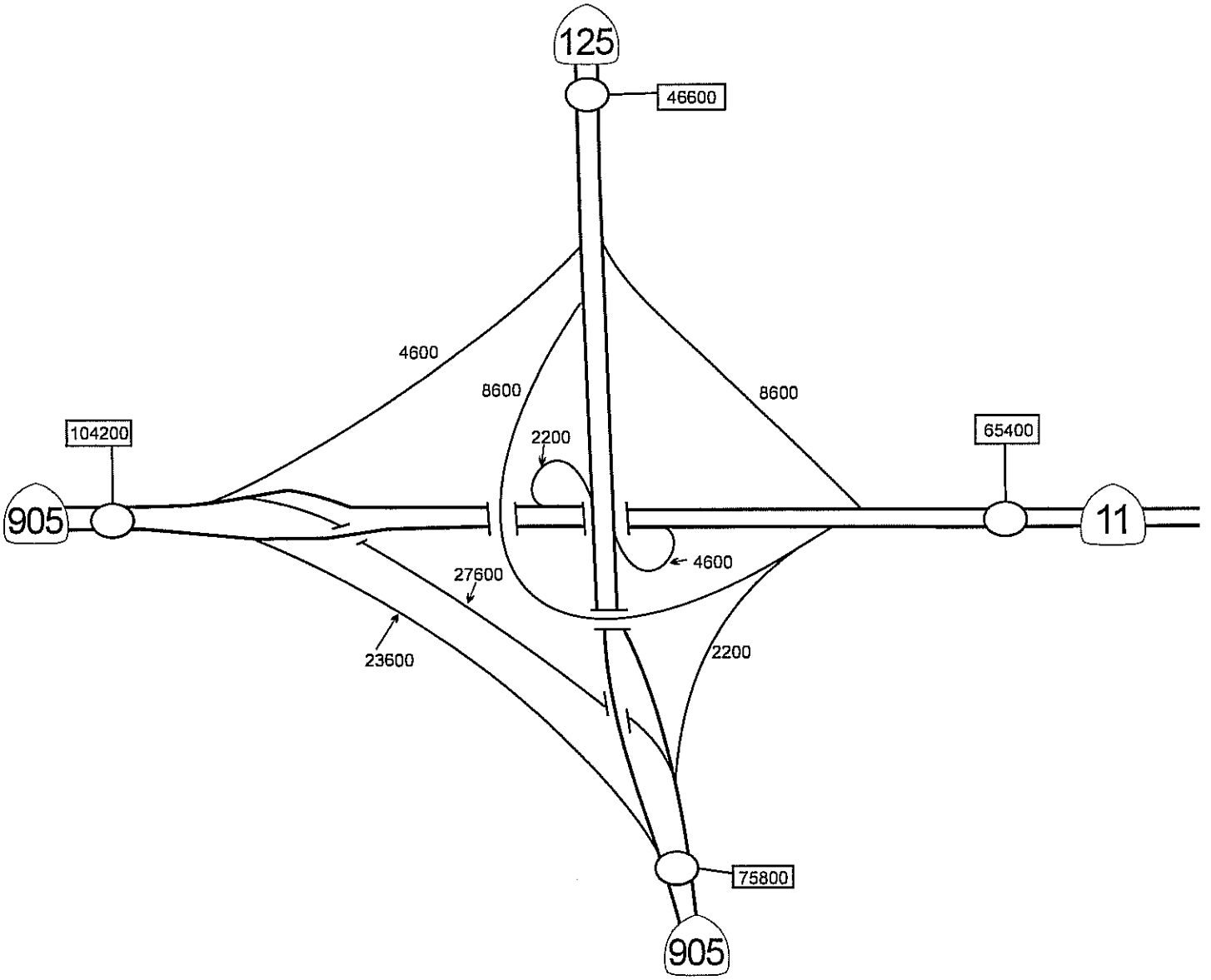


Horizon Year (2035) Average Daily Traffic - Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-58b

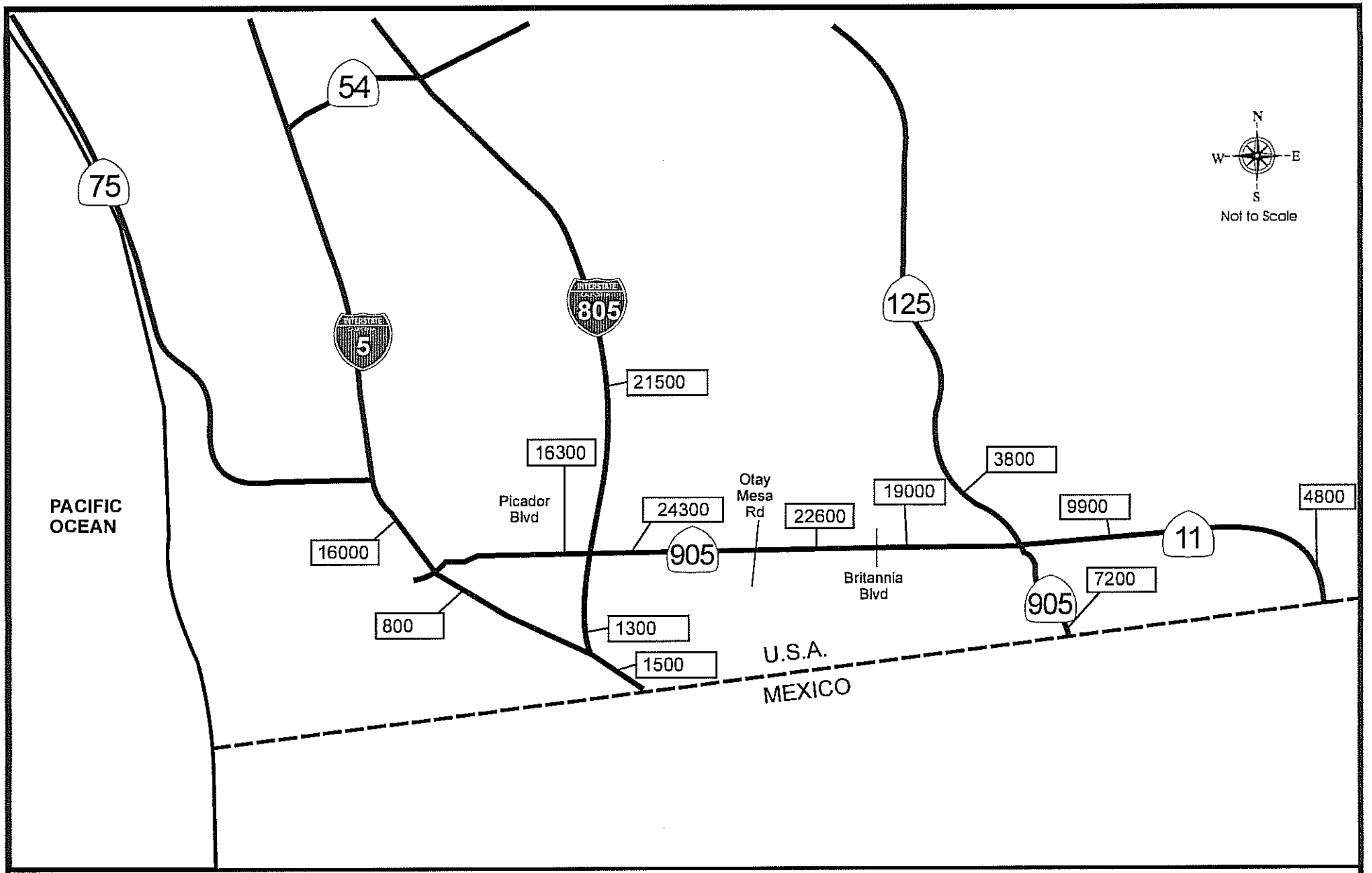


Horizon Year (2035) Average Daily Traffic -
Full Interchange / One Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-58c



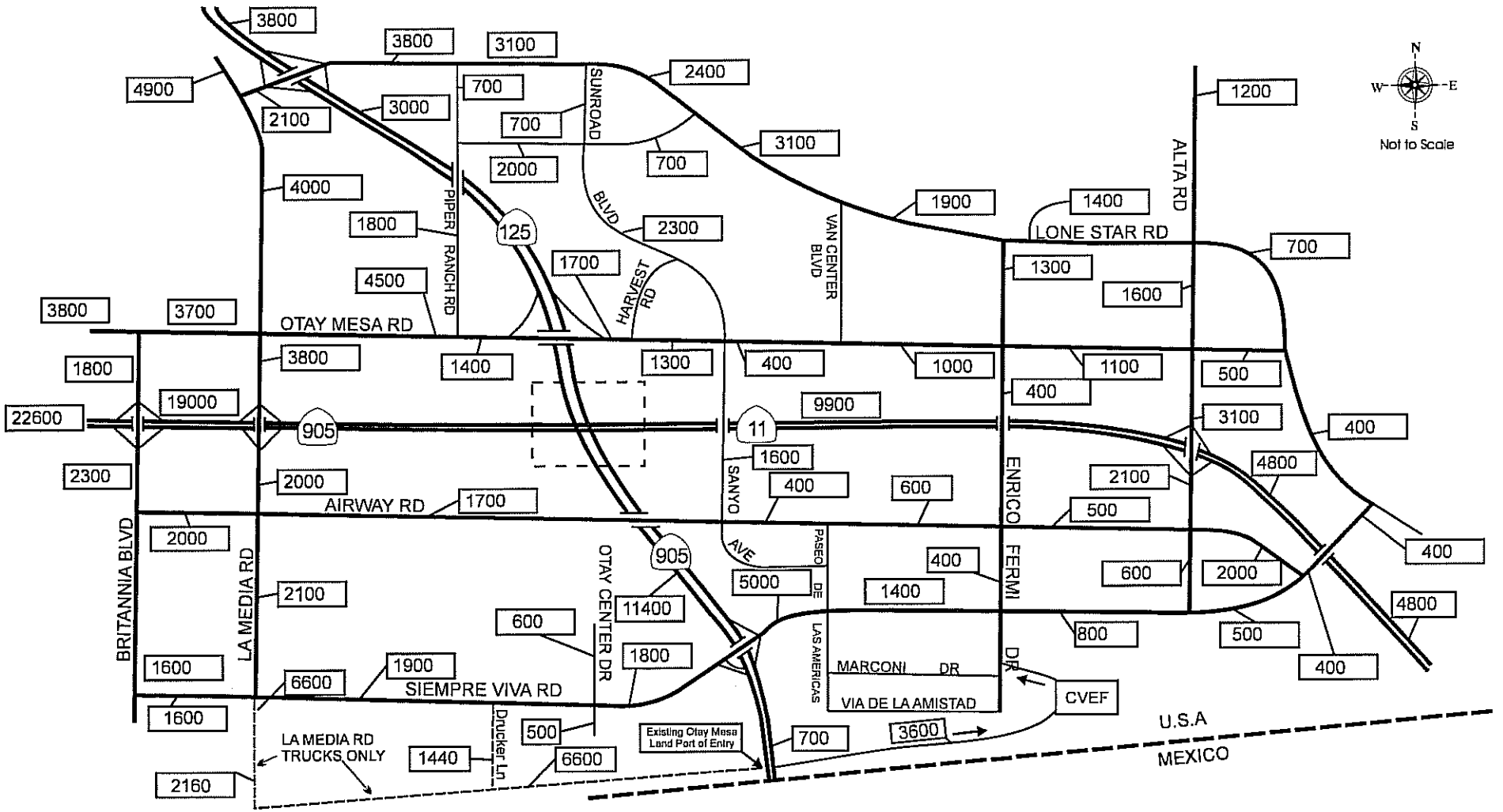
Horizon Year (2035) Daily Truck Trips -
Full Interchange / One Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-59a



Horizon Year (2035) Daily Truck Trips - Full Interchange / One Interchange Design Variation

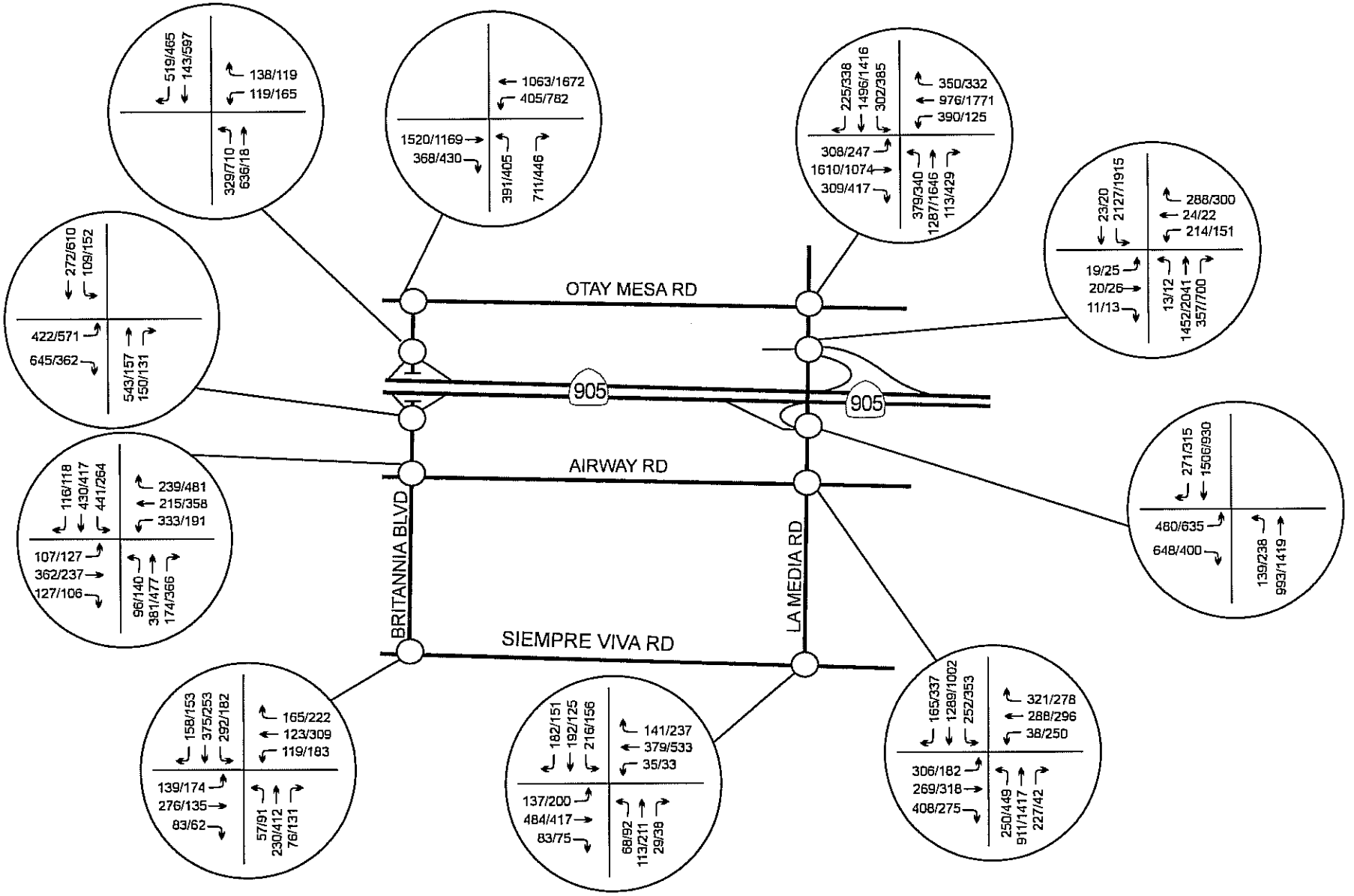
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-59b

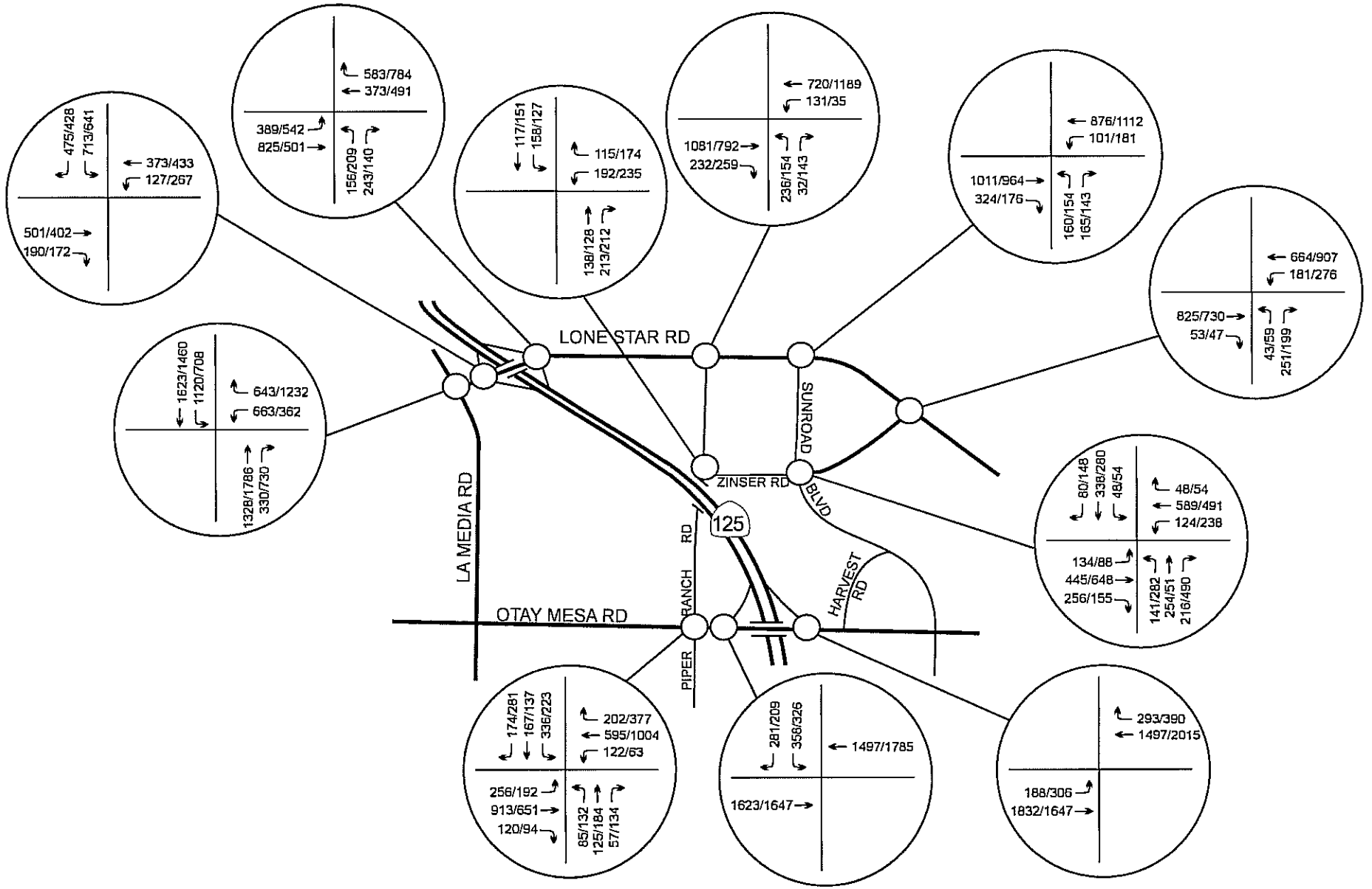


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-60a

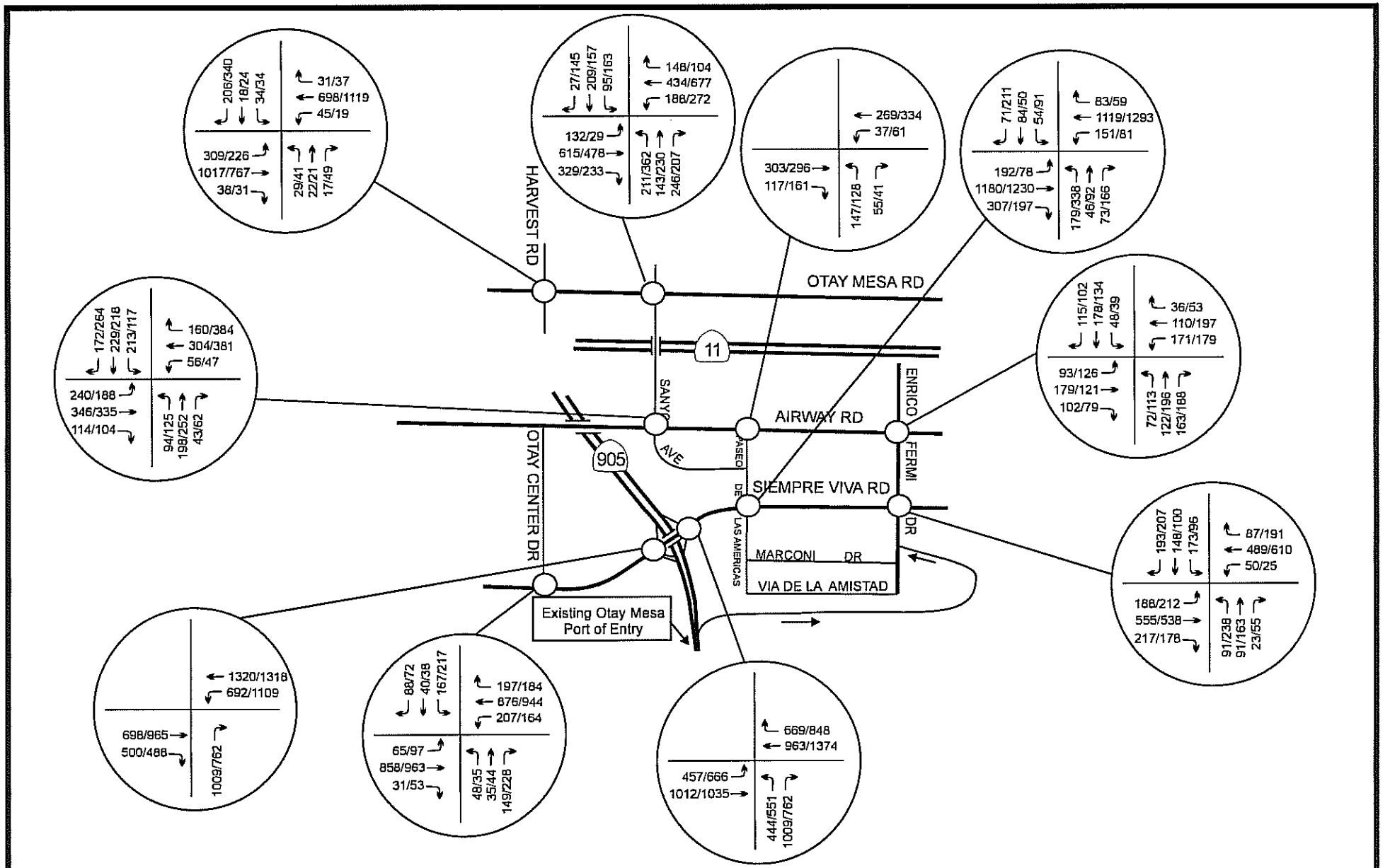


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-60b

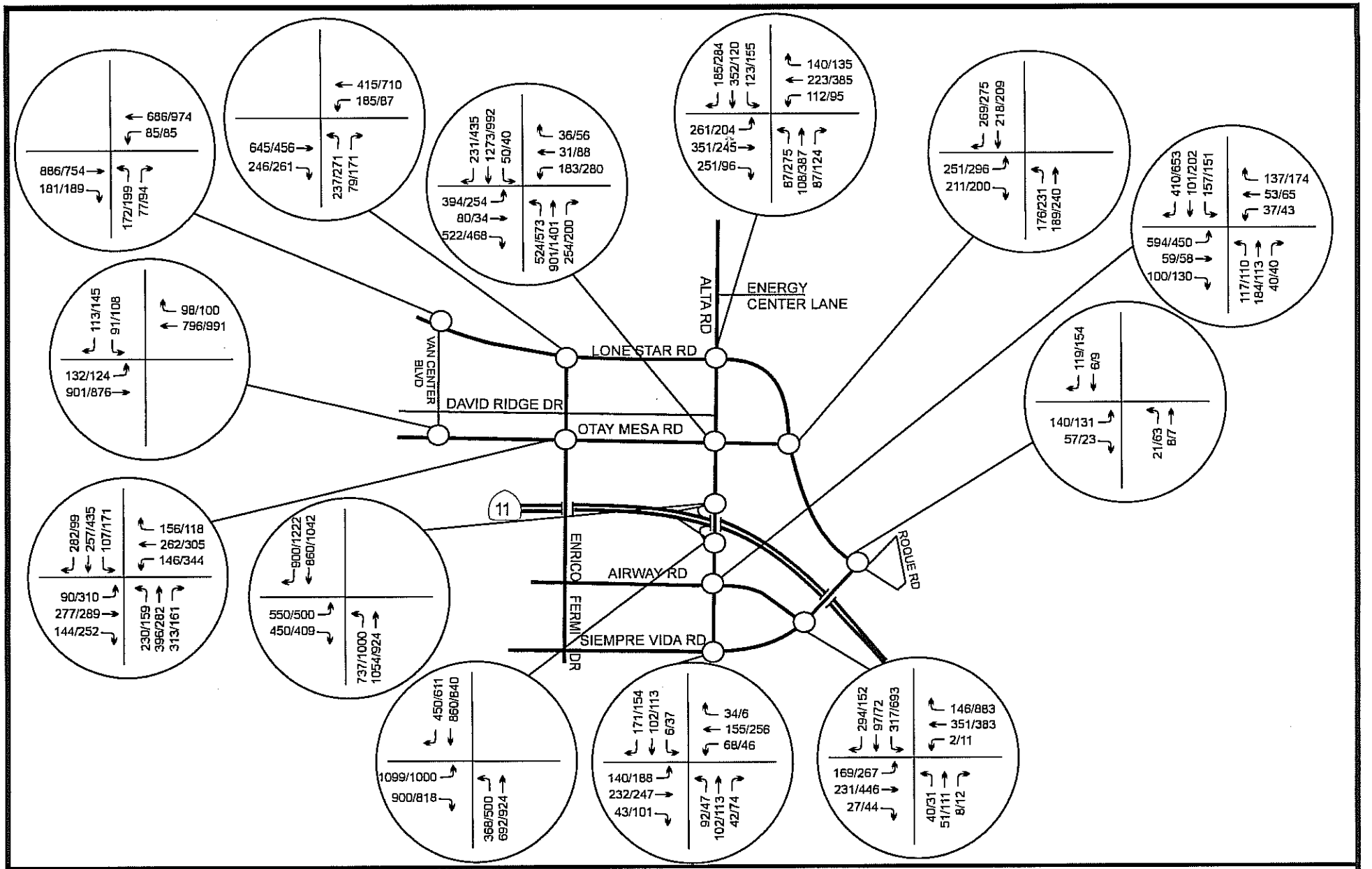


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange

Legend

- Existing or Proposed Freeway/Tollway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-60c

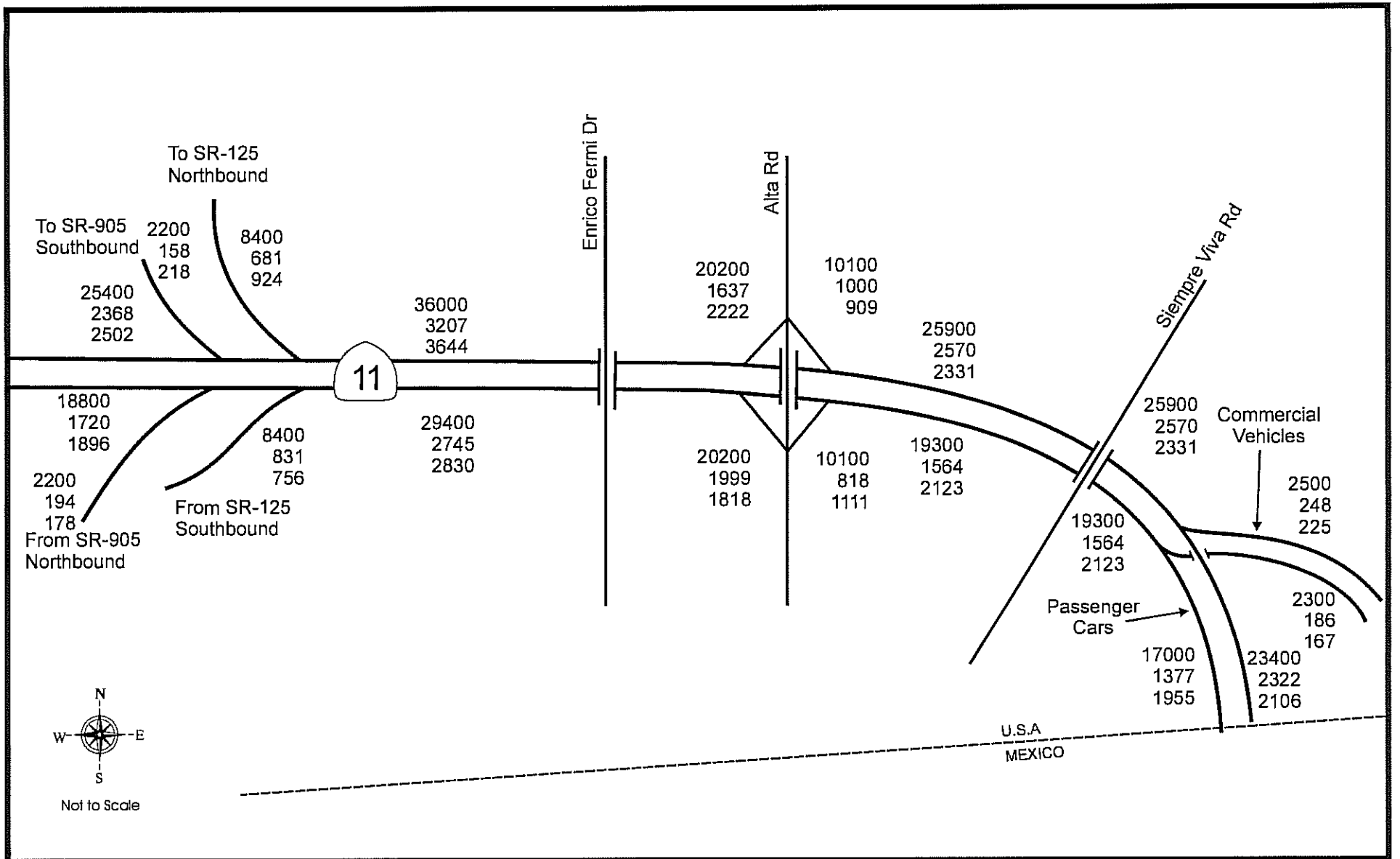


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange / One Interchange

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-60d

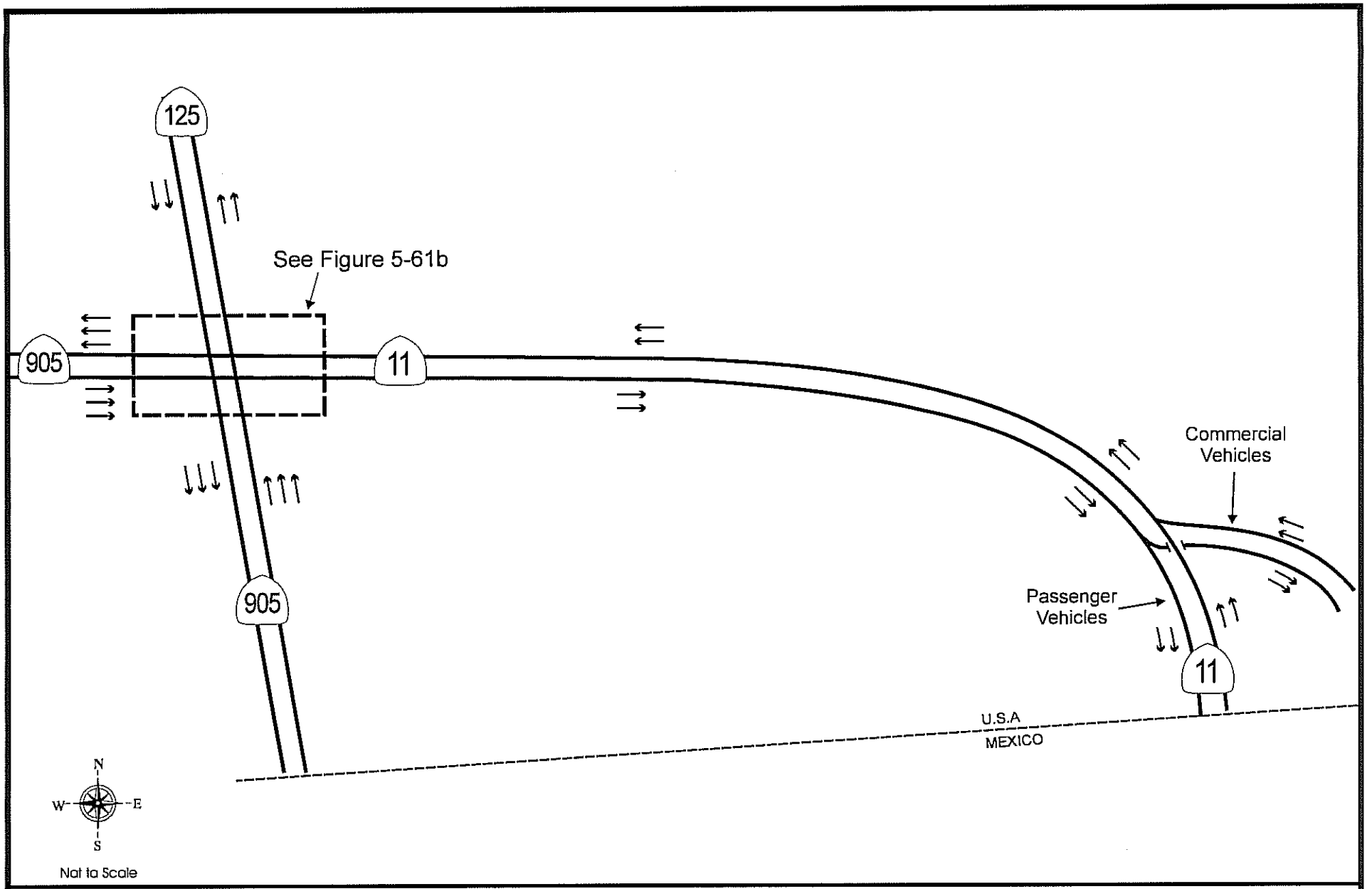


Horizon Year (2035) AM/PM Peak Hour Traffic
SR-11/Mainline and Ramps - Full Interchange/One Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-60e

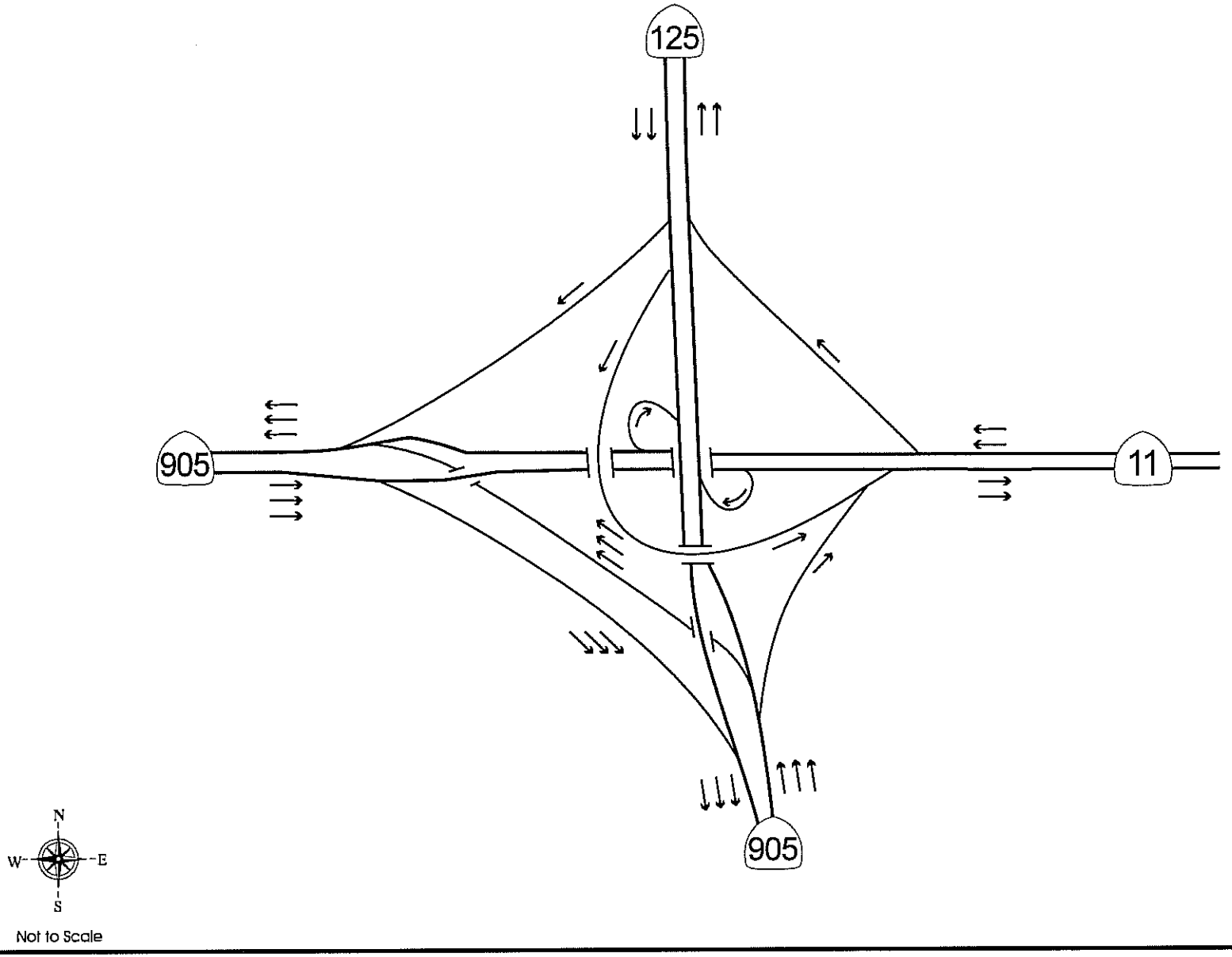


Horizon Year (2035) SR-11 Lane Geometry
Full Interchange/No Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 5-61a

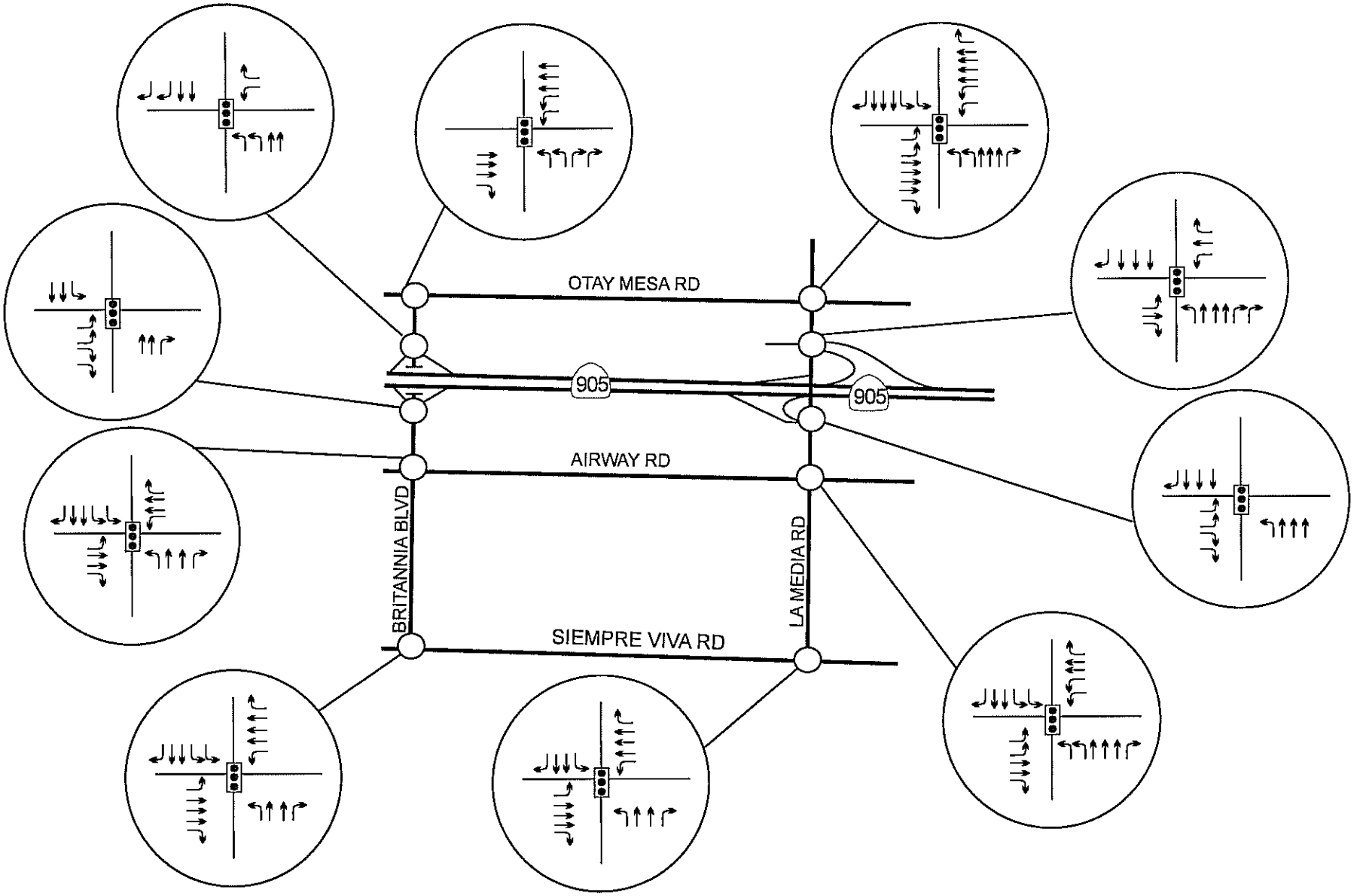


Horizon Year (2035) SR-11 Lane Geometry
Full Interchange/No Interchange Design Variation

Legend

⟵ Number of Lanes

Figure 5-61b

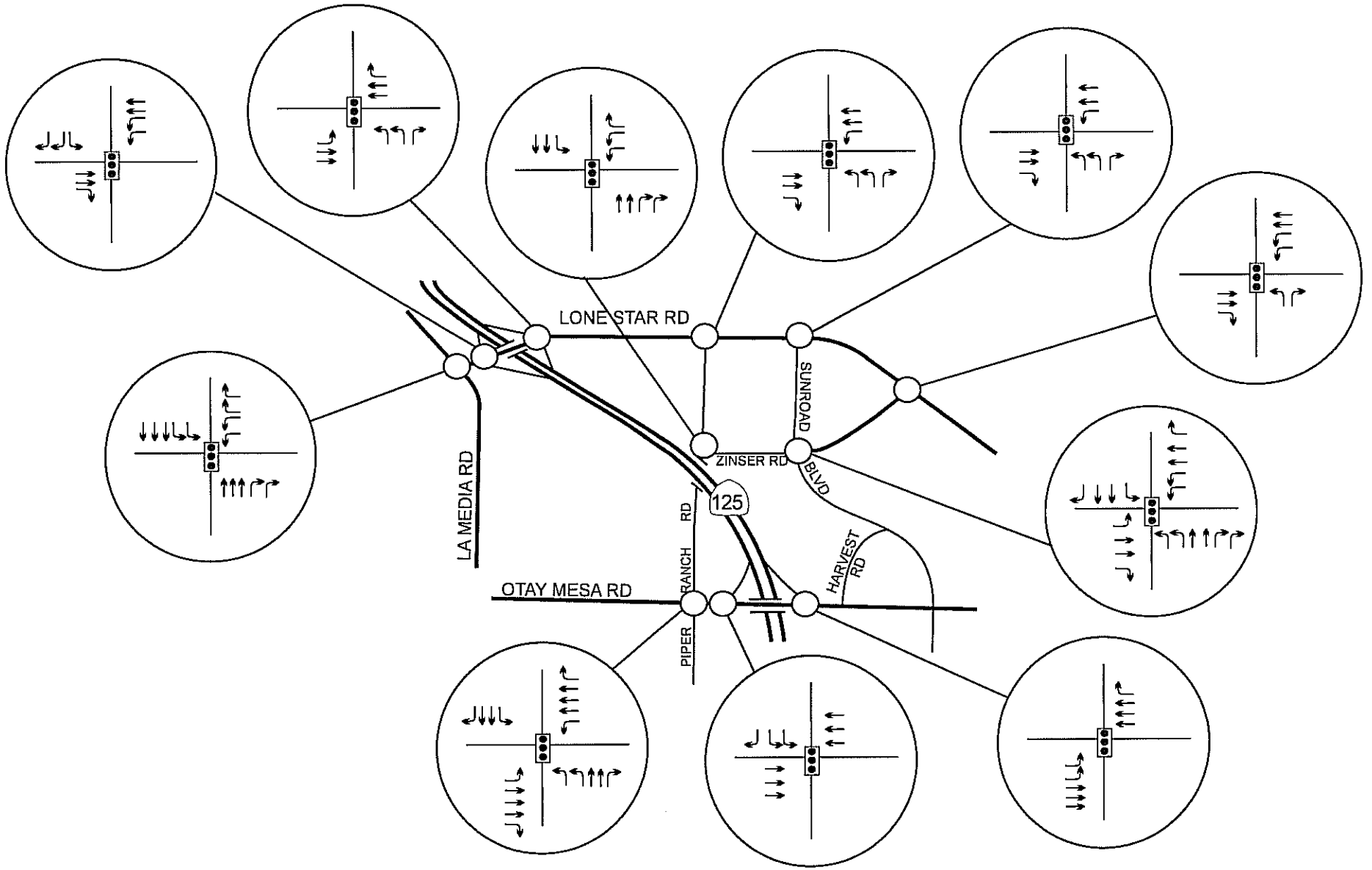


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-62a

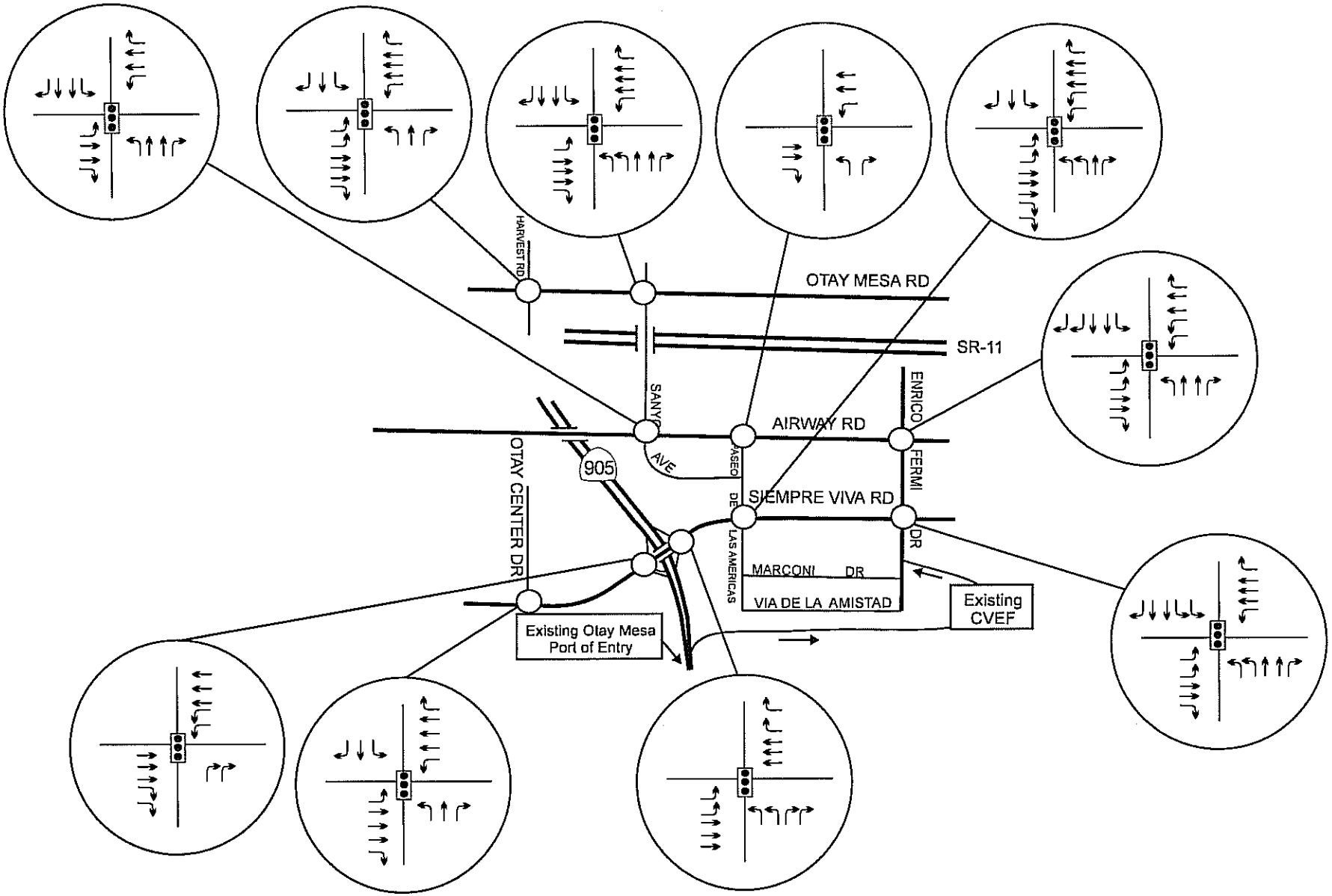


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-62b

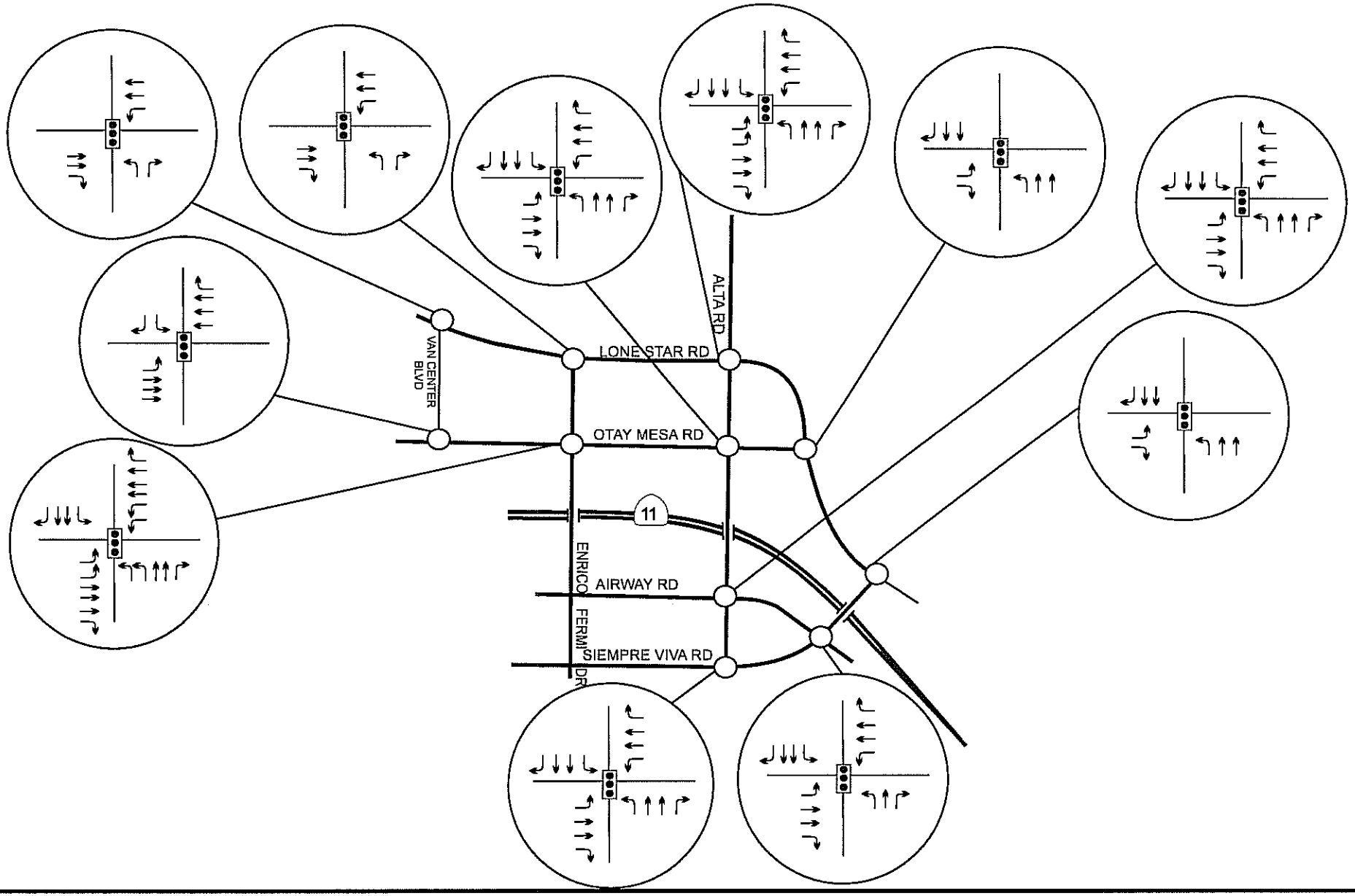


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-62c

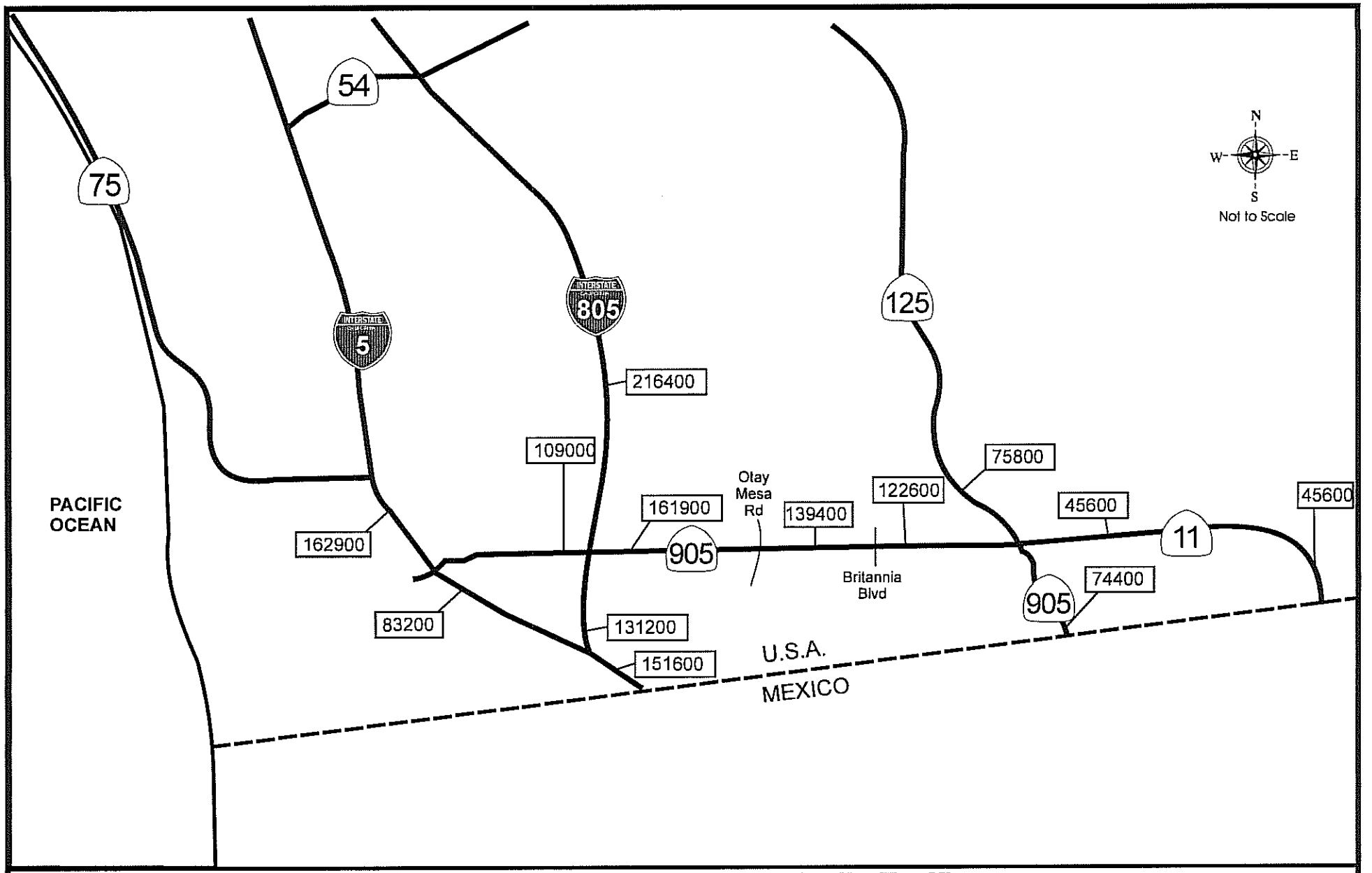


Horizon Year (2035) Intersection Lane Geometry - Full Interchange/No Interchange Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-62d



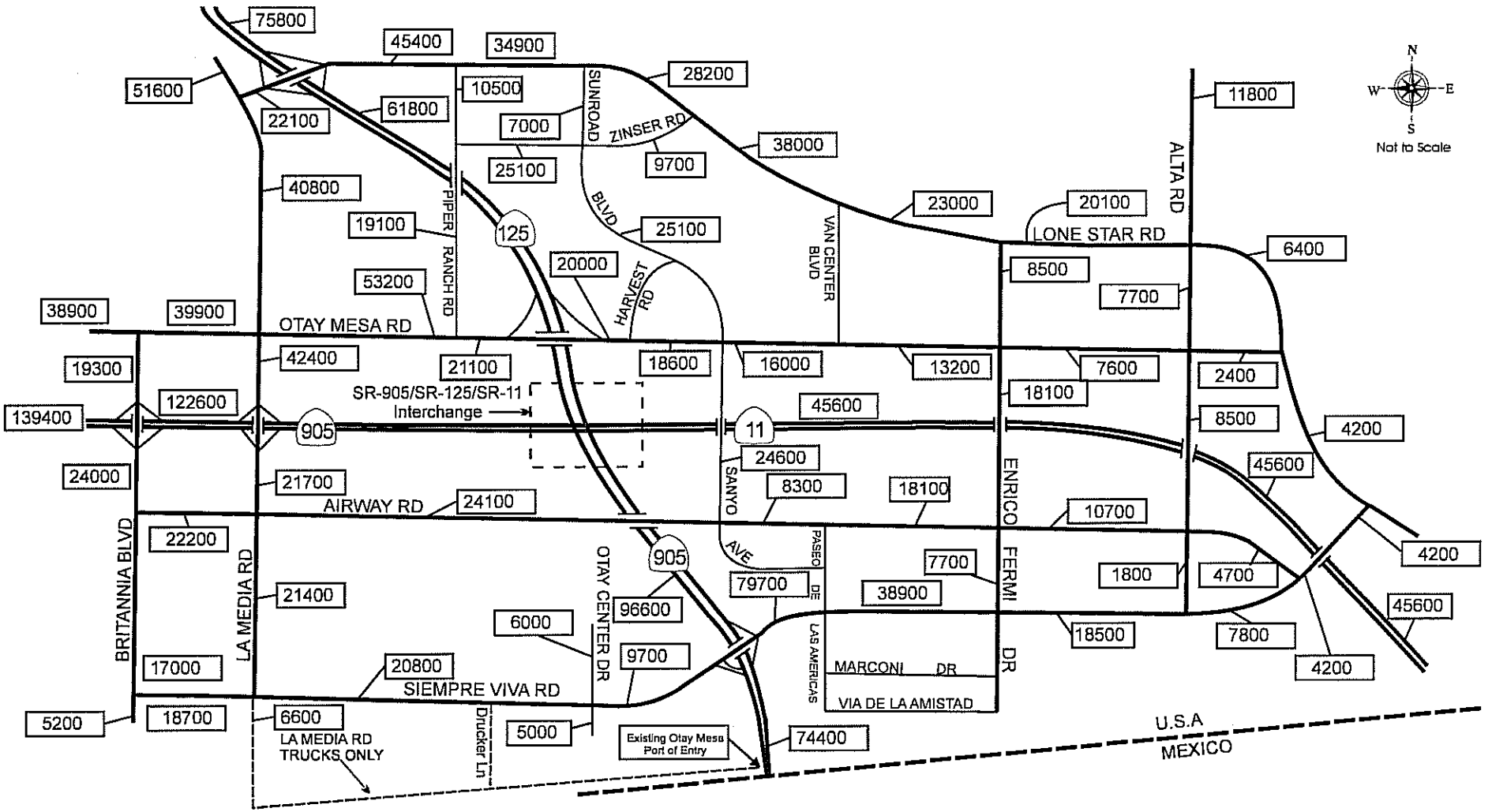
Horizon Year (2035) Average Daily Traffic - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-63a



Horizon Year (2035) Average Daily Traffic - Full Interchange/No Interchange Design Variation

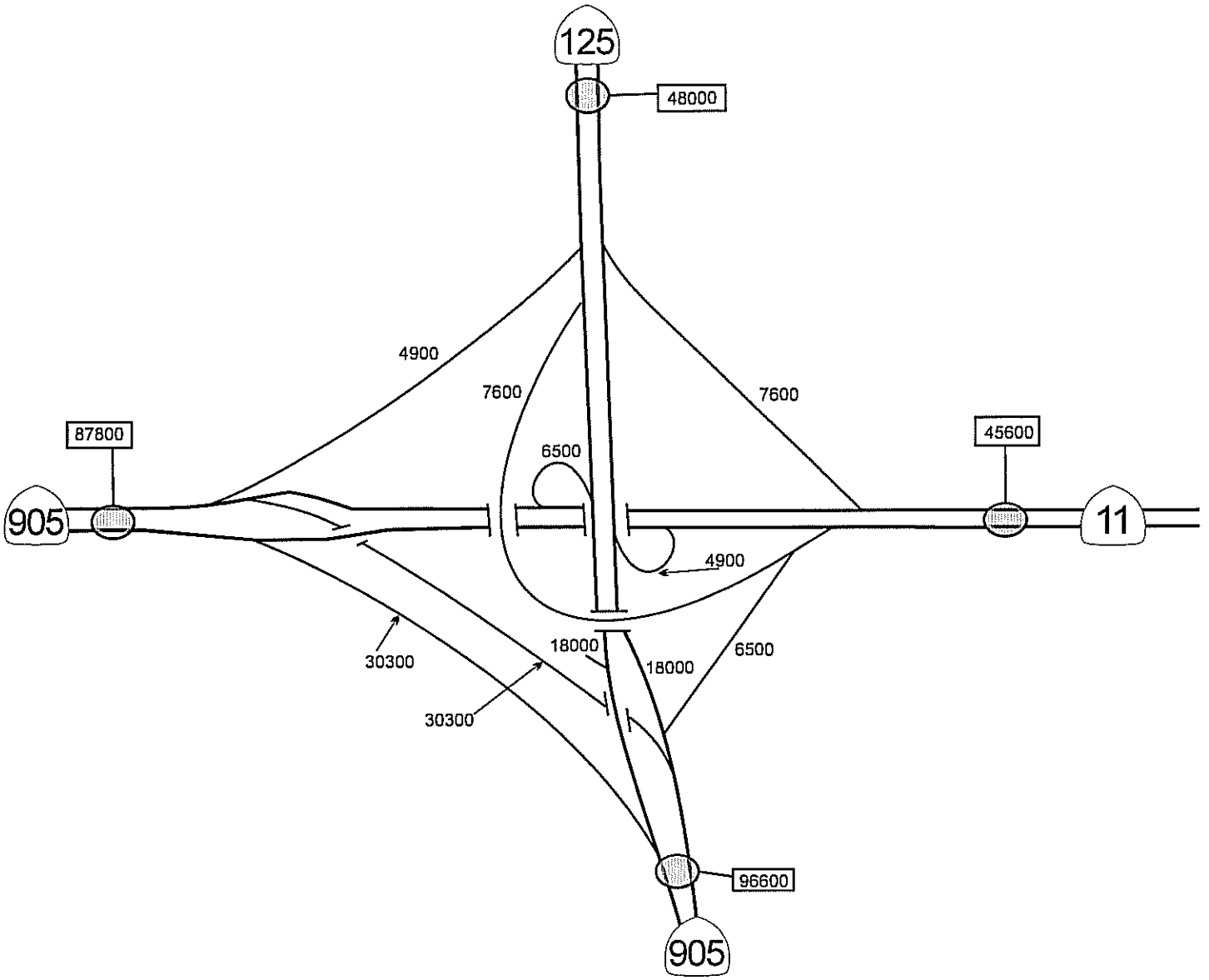
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-63b

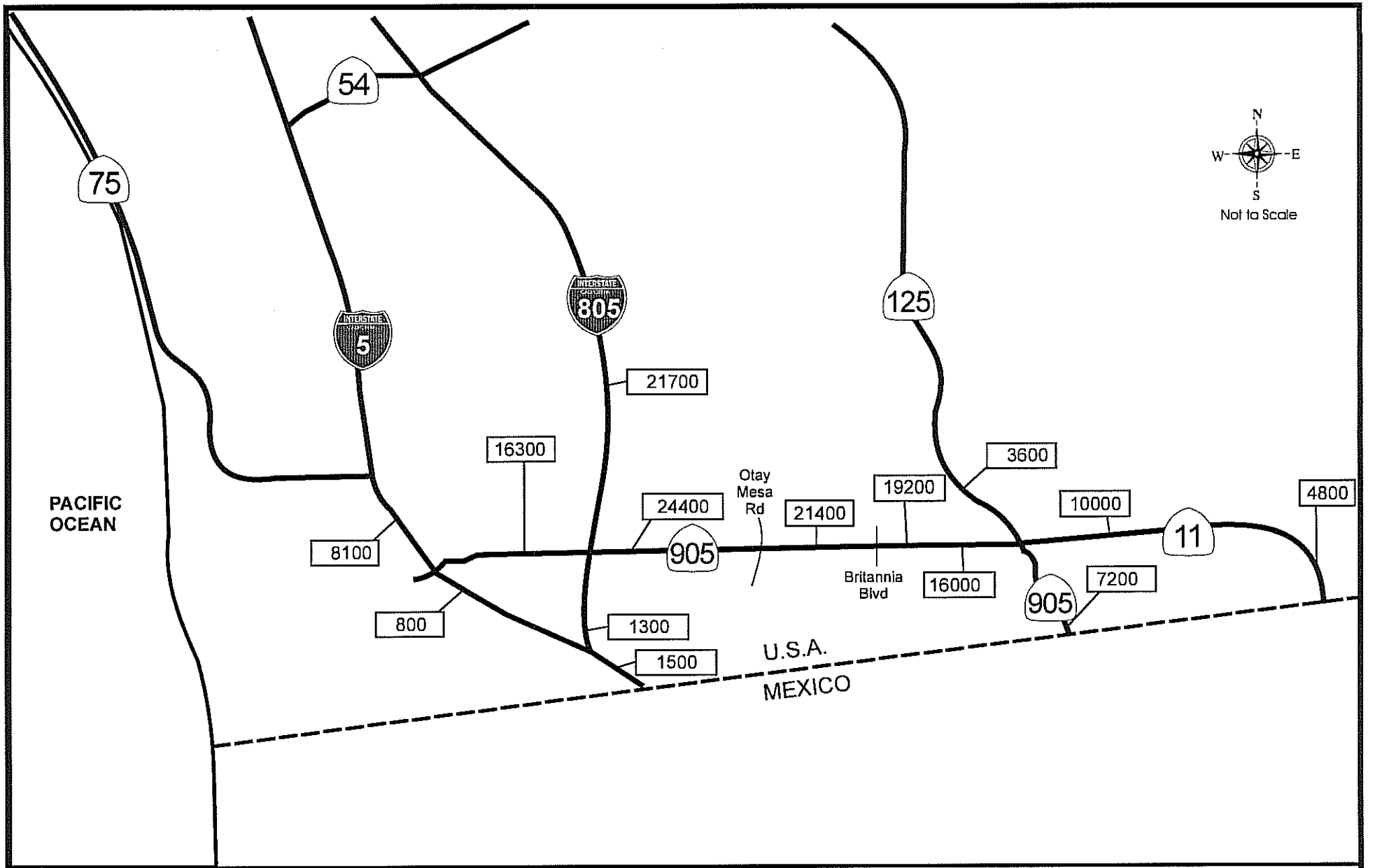


Horizon Year (2035) Average Daily Traffic -
Full Interchange/No Interchange Design Variation

Legend

═══	Existing or Proposed Freeway
———	Existing or Proposed Ramp
XXXXX	Average Daily Traffic

Figure 5-63c



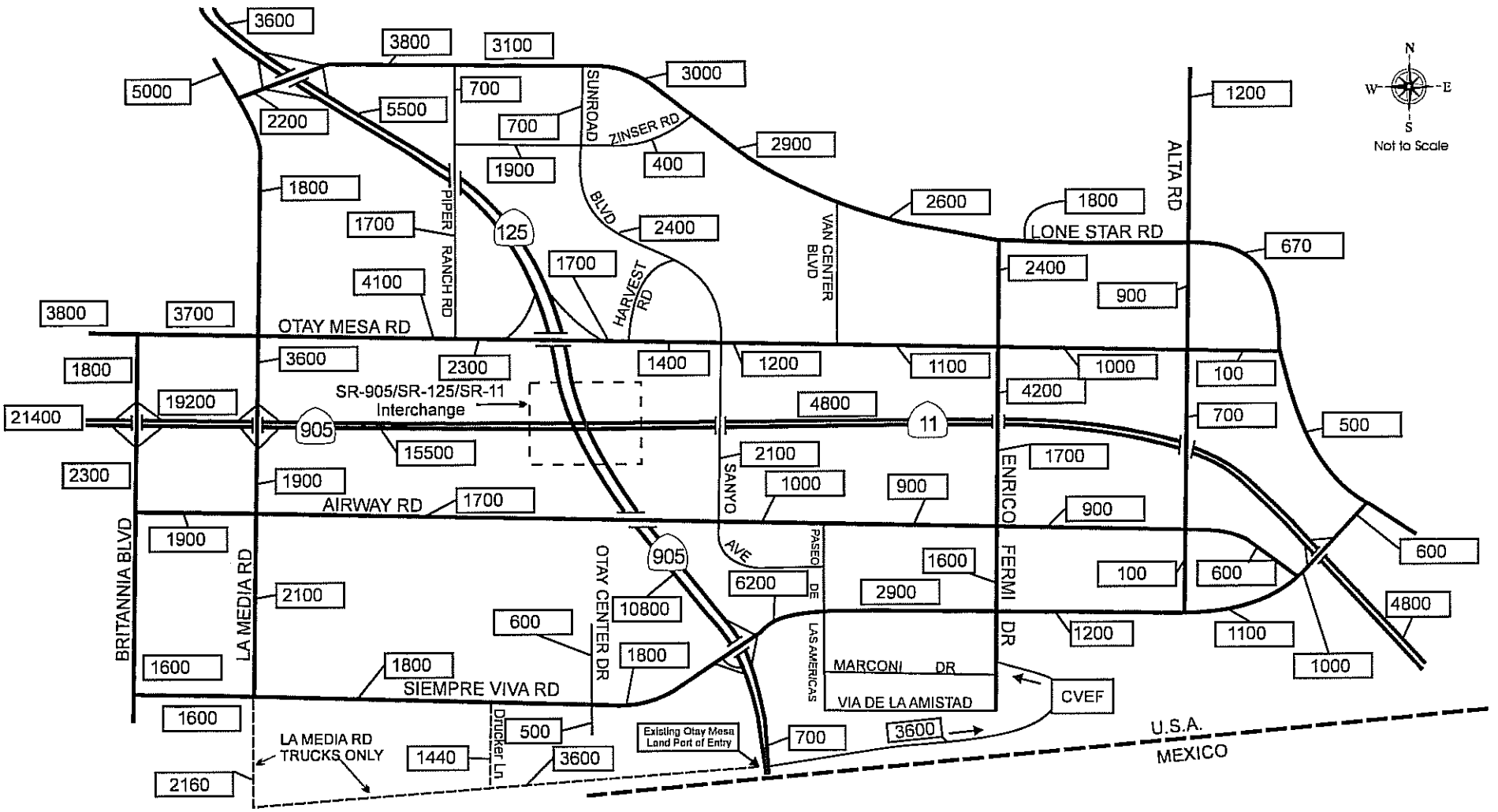
Horizon Year (2035) Daily Truck Trips - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-64a

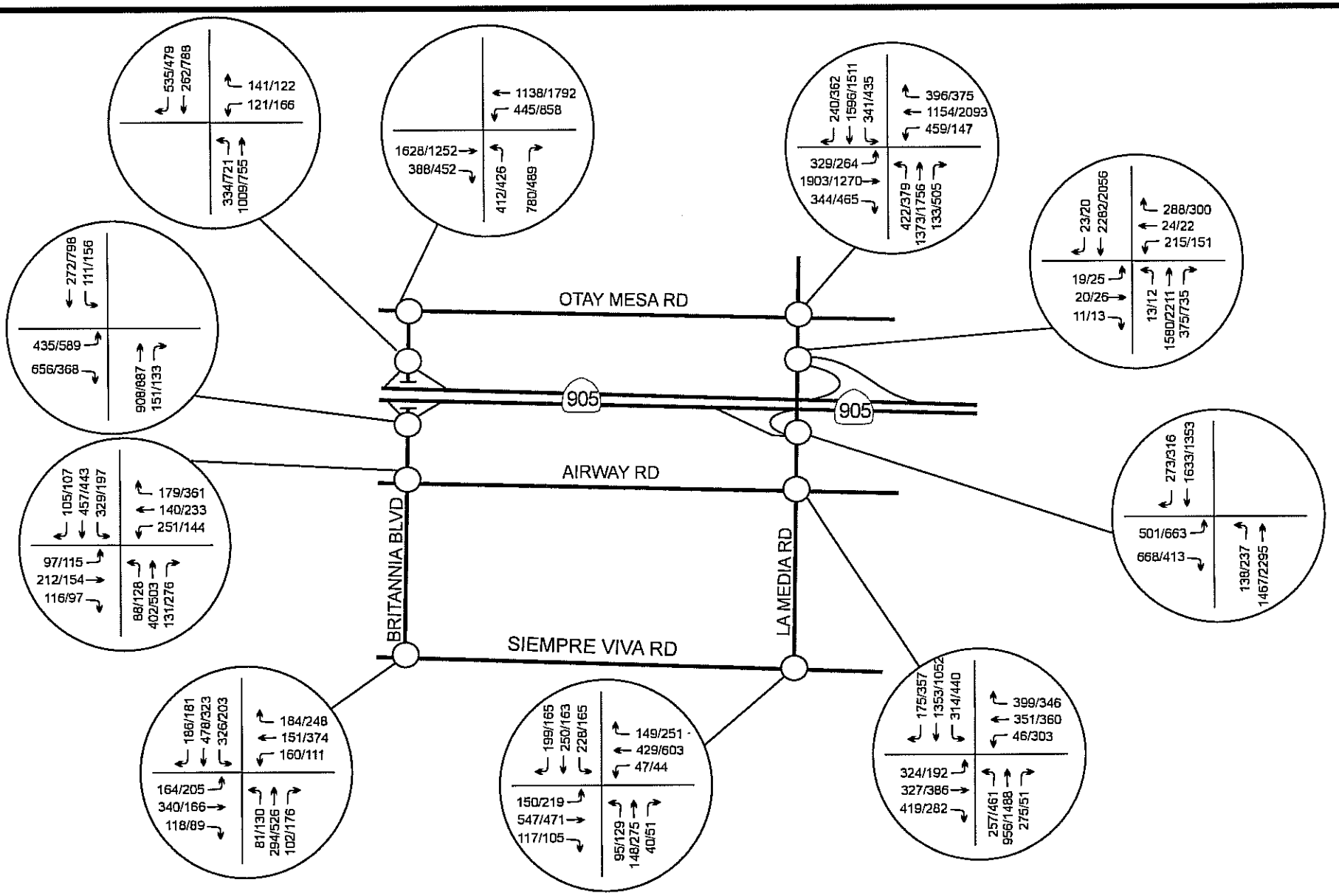


Horizon Year (2035) Daily Truck Trips - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-64b

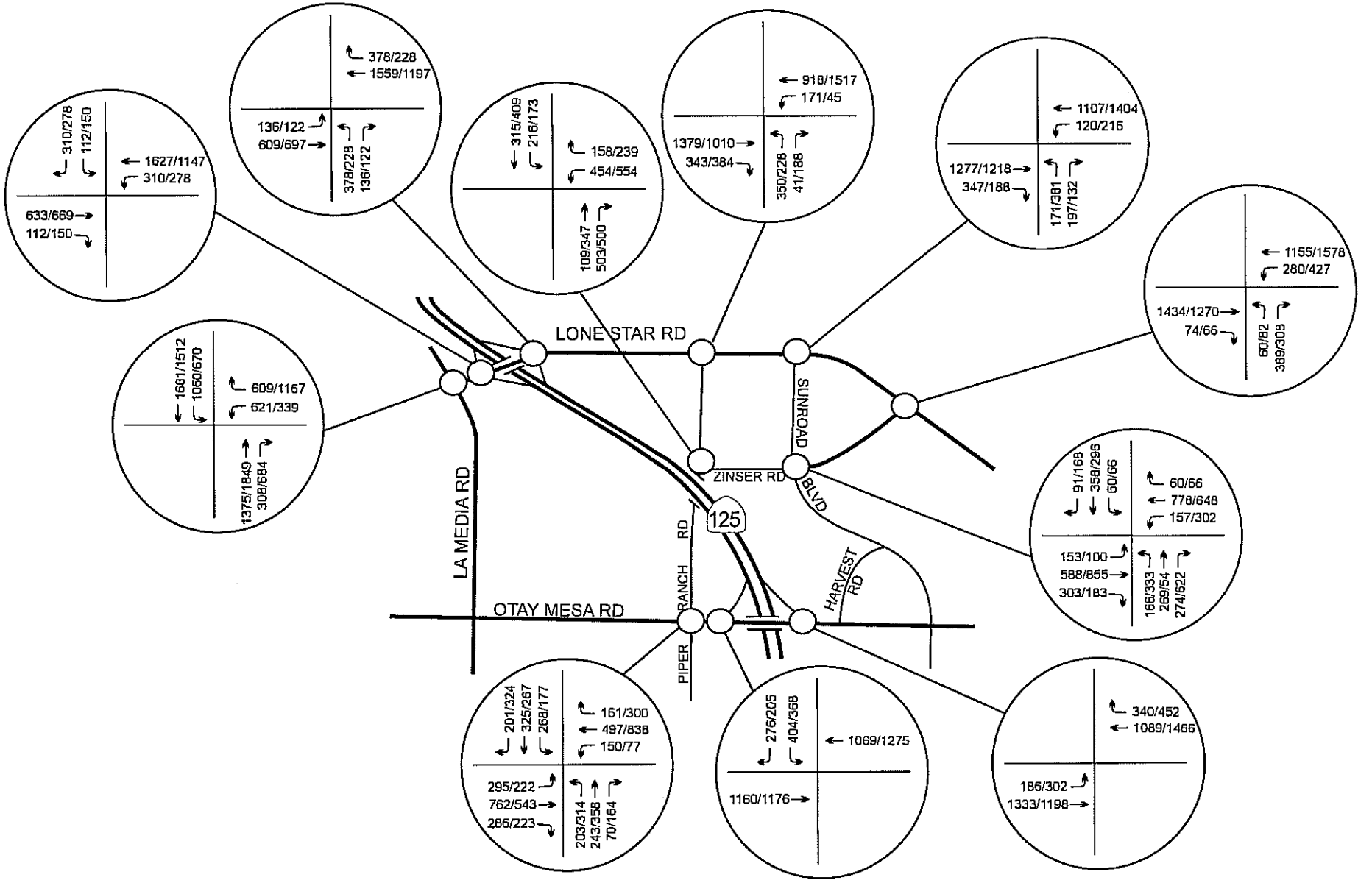


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-65a

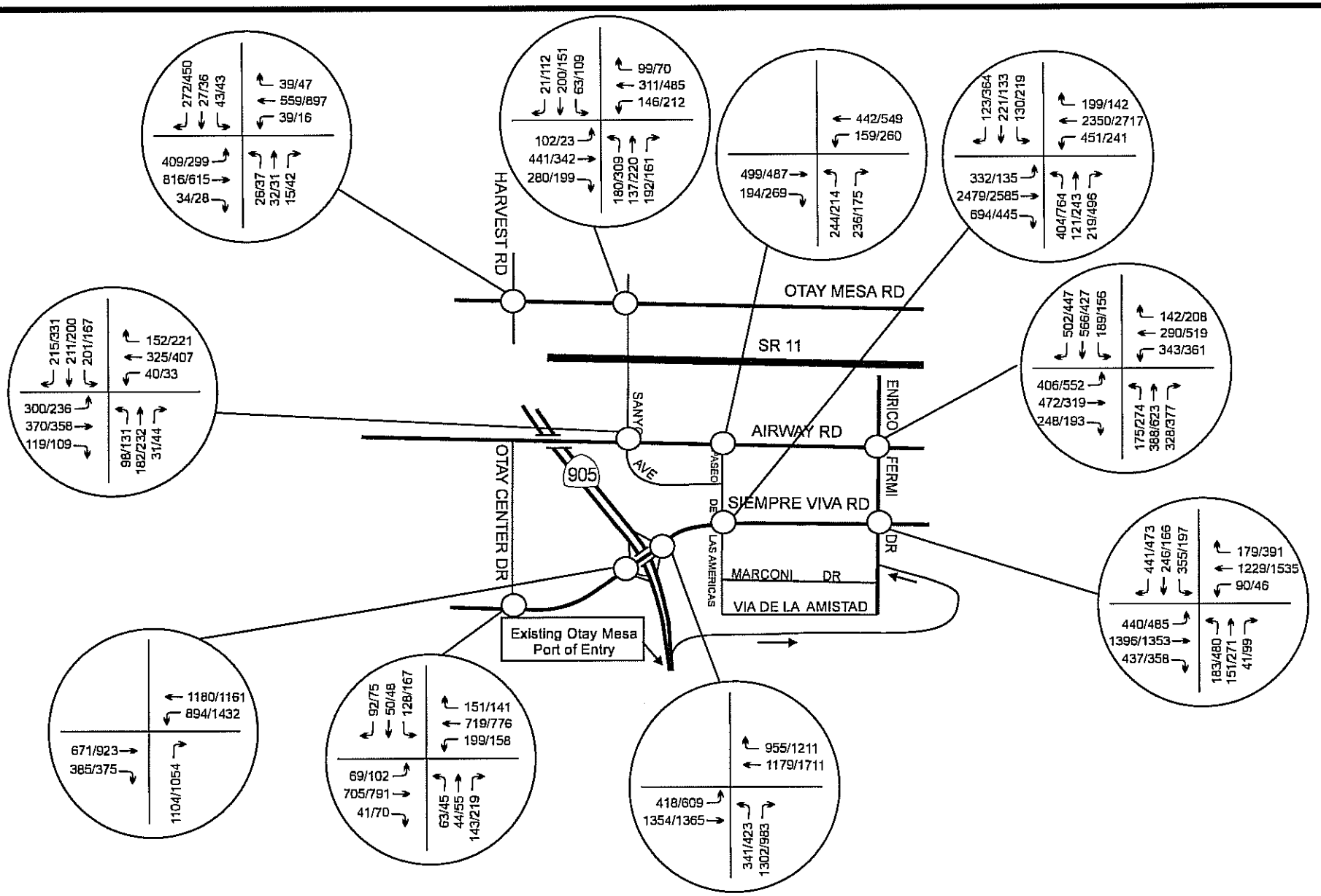


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-65b

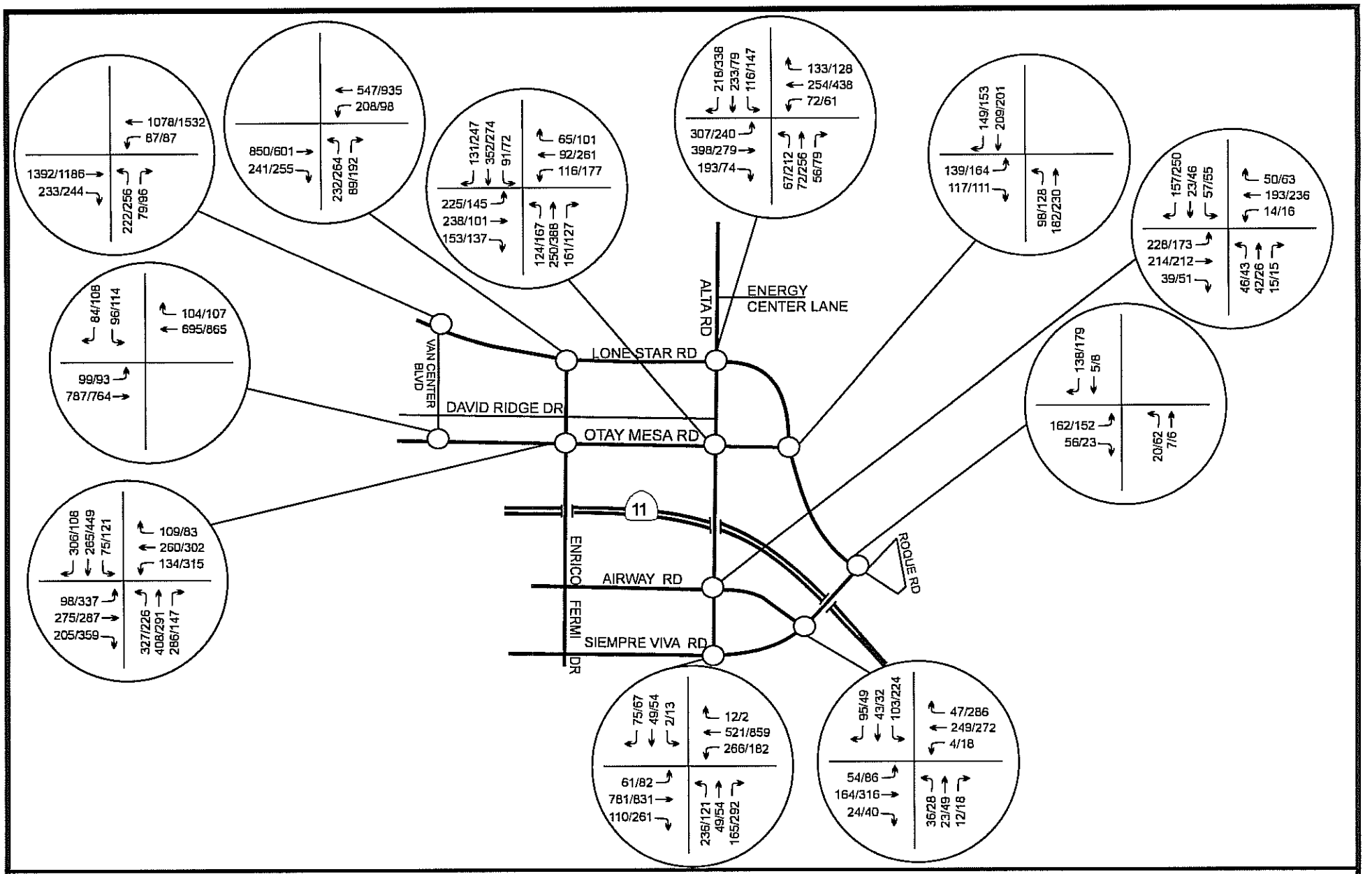


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-65c

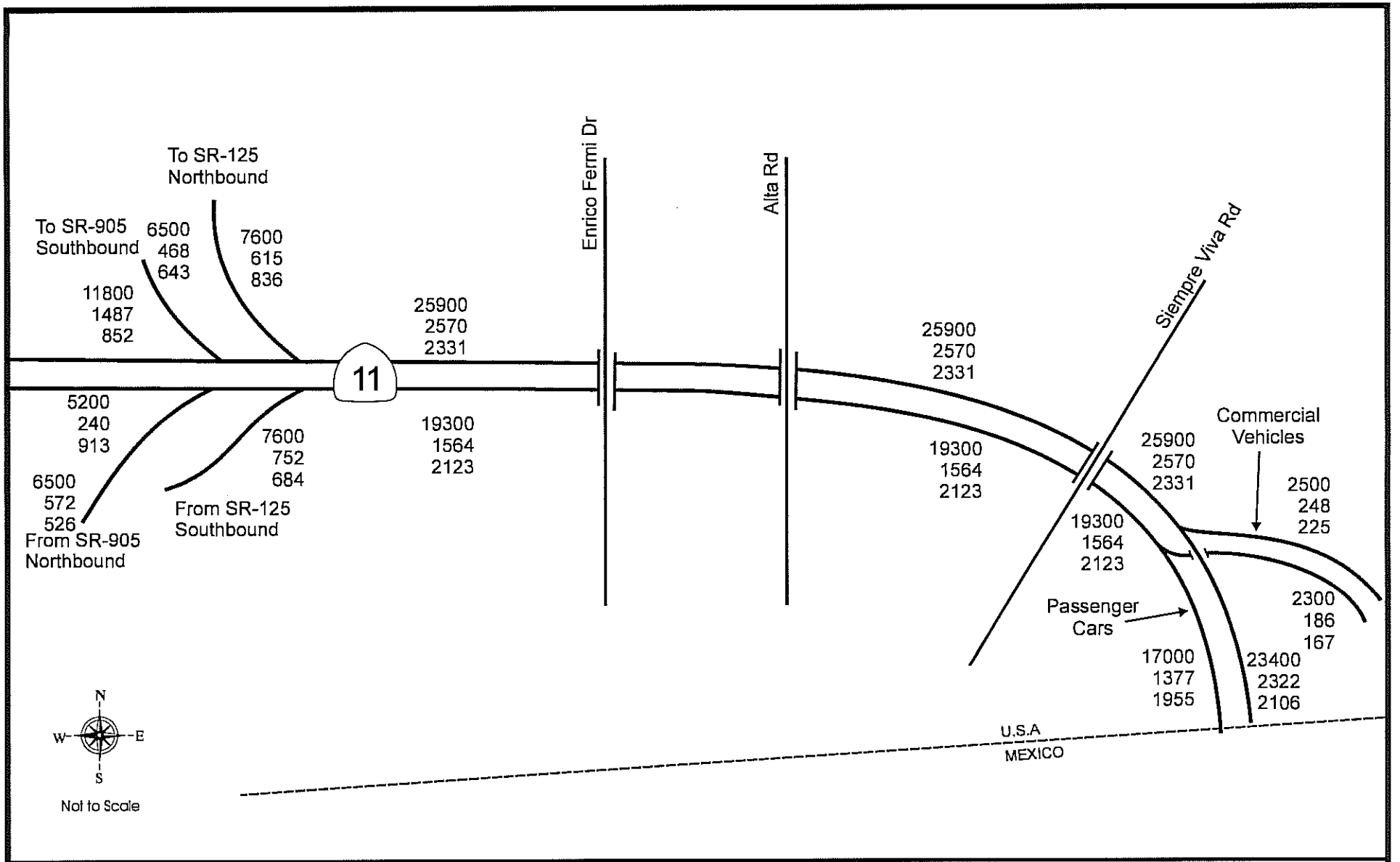


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - Full Interchange/No Interchange Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-65d

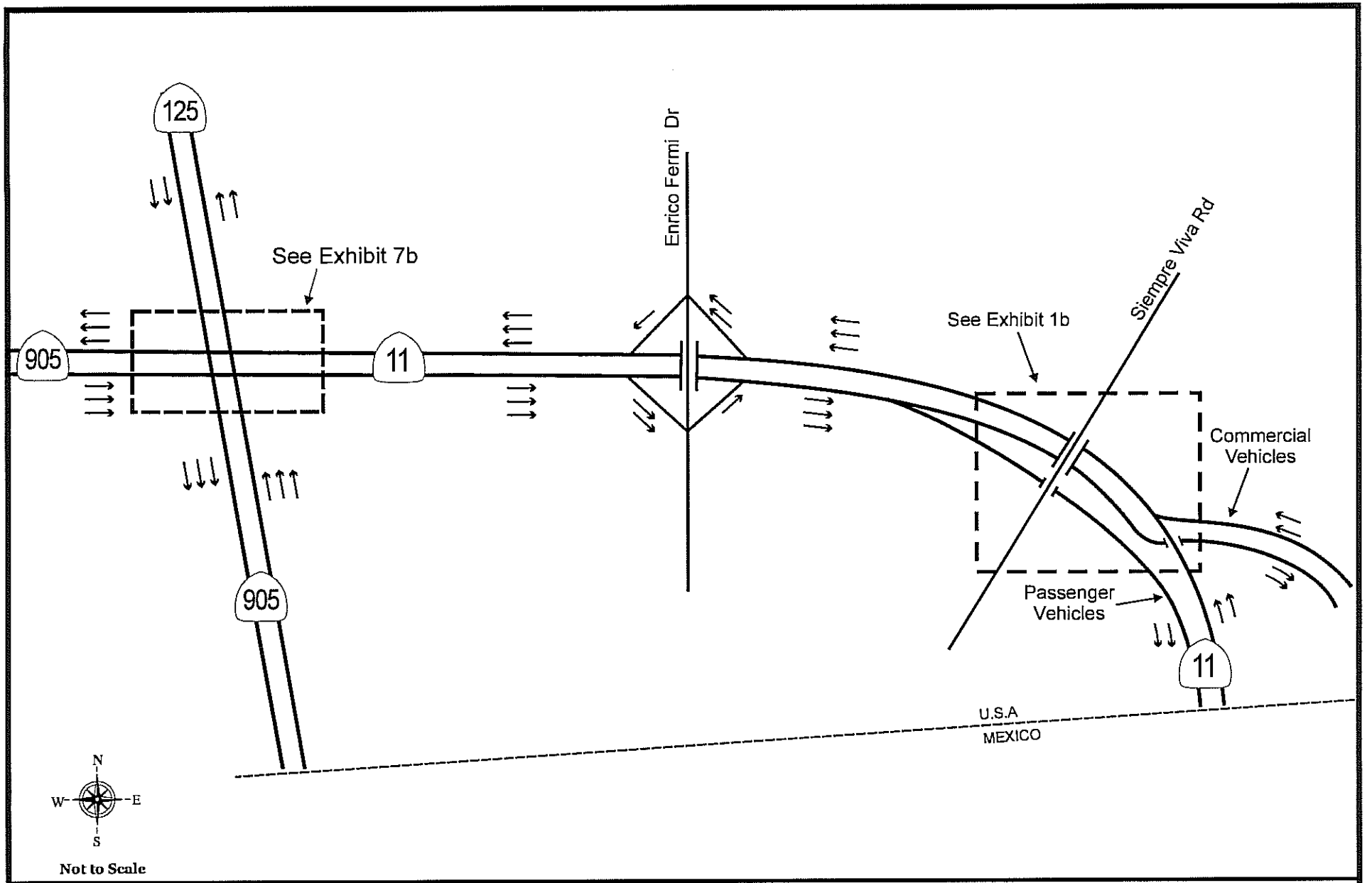


Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps
Full Interchange/No Interchange Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-65e

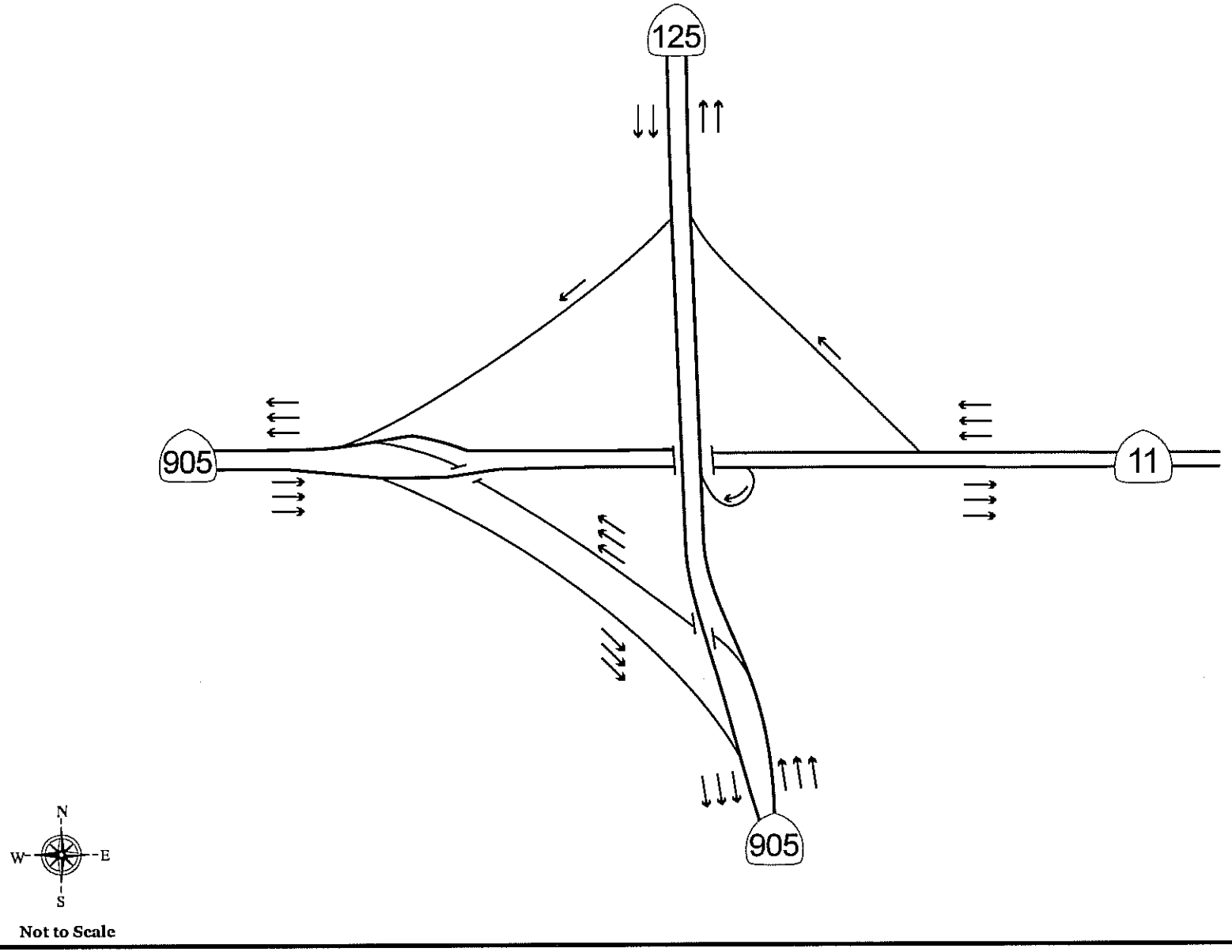


Horizon Year (2035) SR-11 Lane Geometry
SR-11/Siempre Viva Road Design Variation

Legend

⟵ Number of Lanes

Figure 5-66a

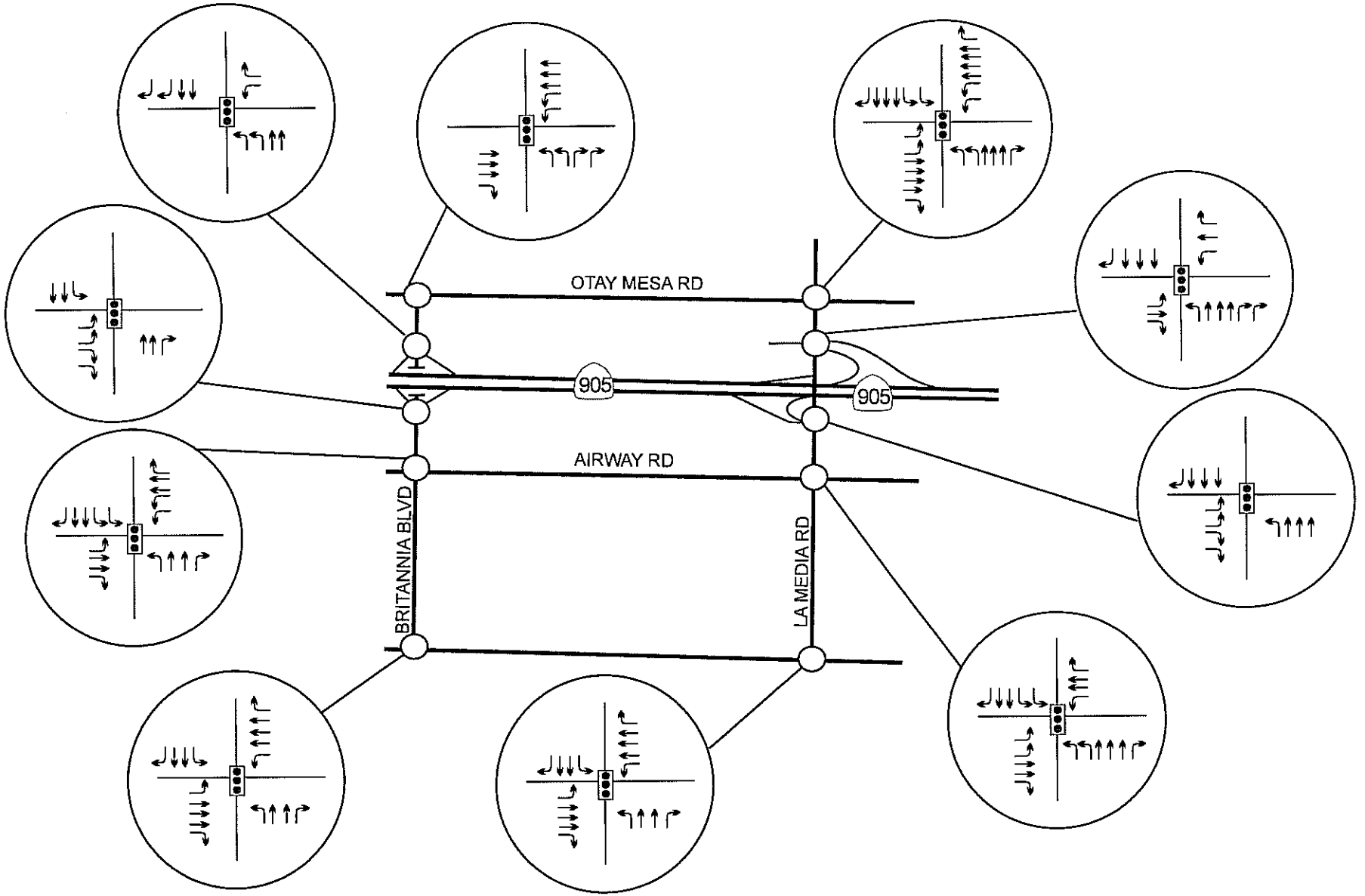


Horizon Year (2035) SR-11 Lane Geometry
SR-11/Siempre Viva Road Design Variation

Legend

← Number of Lanes

Figure 5-66b

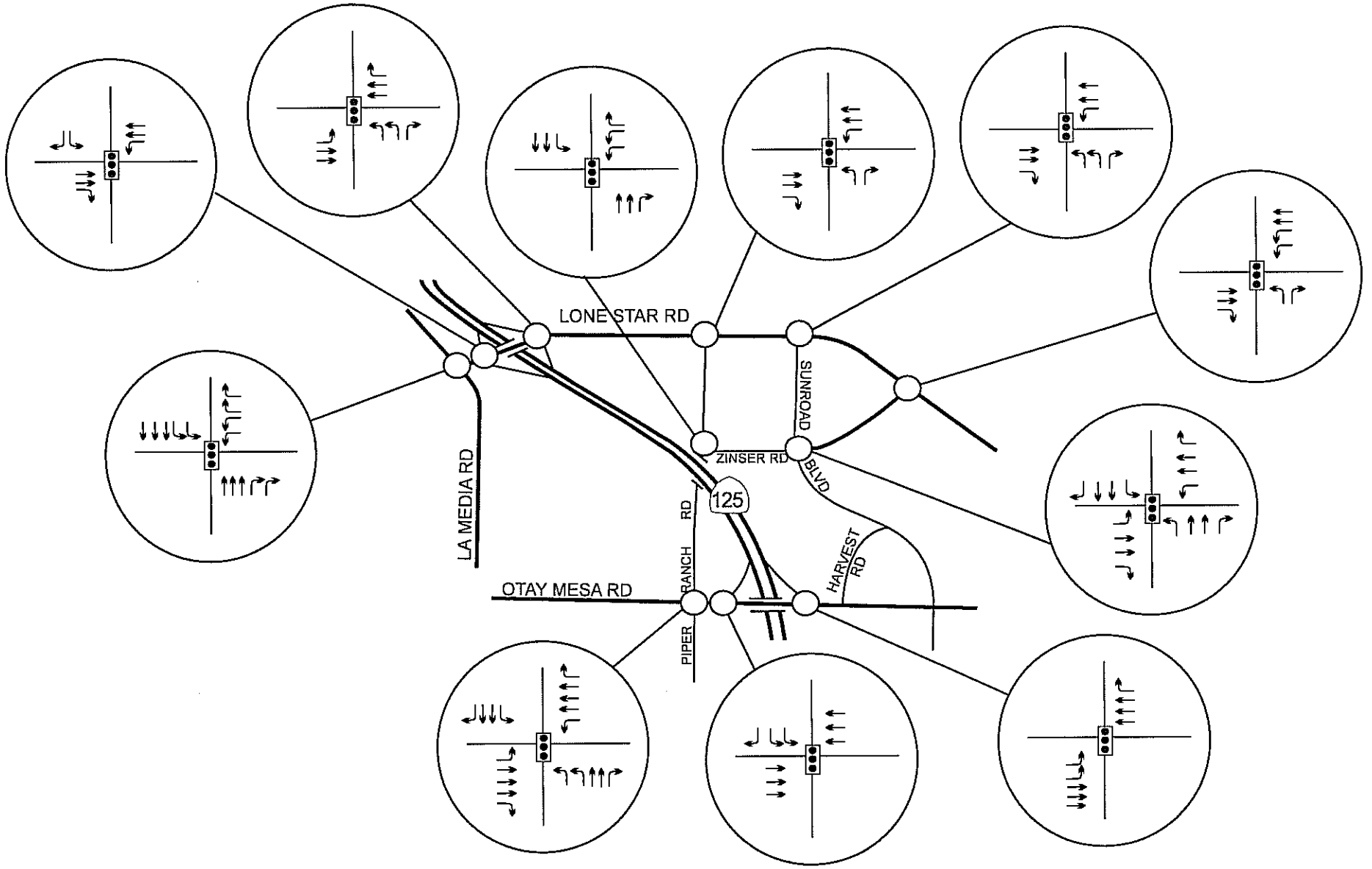


Horizon Year (2035) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-67a

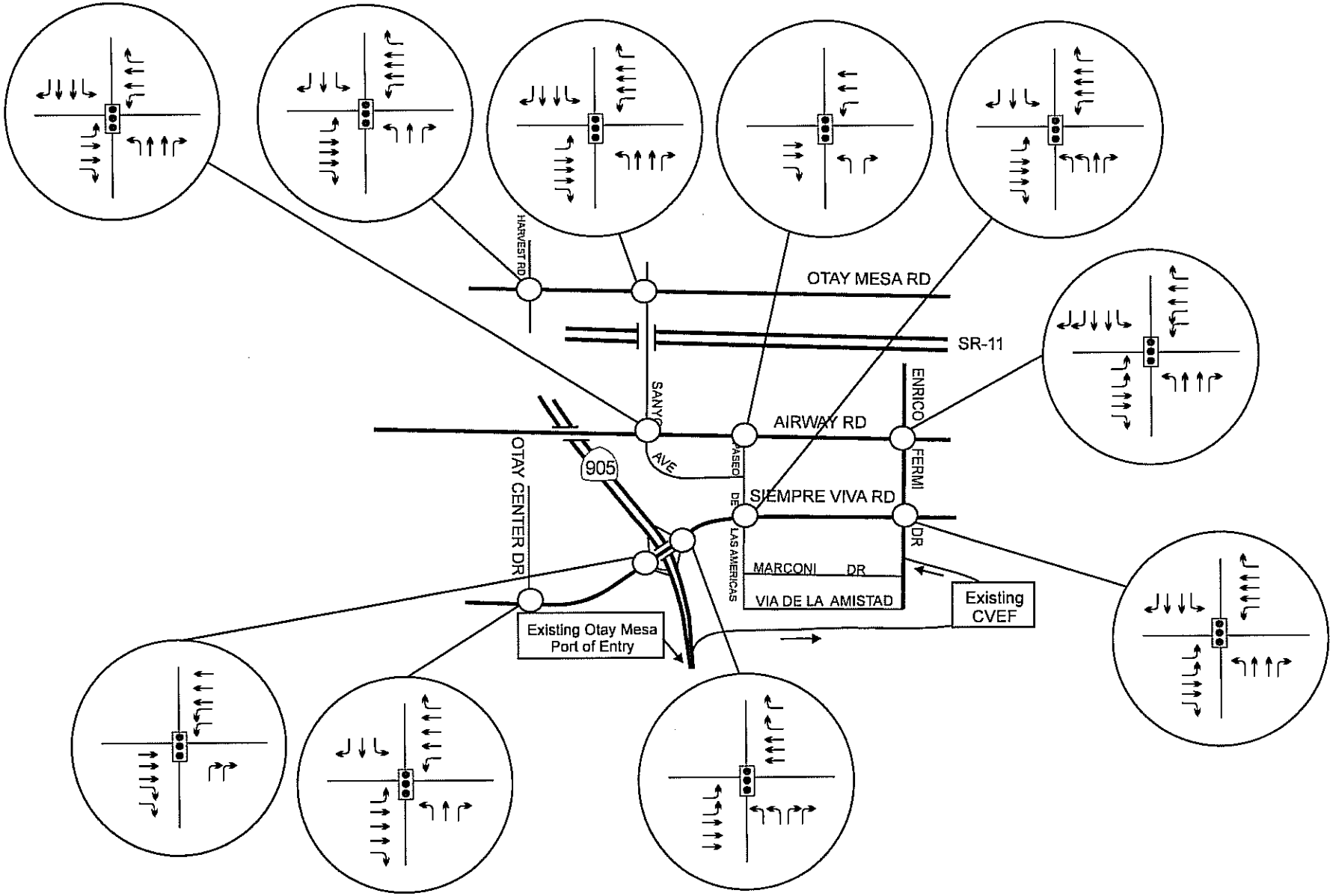


Horizon Year (2035) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-67b

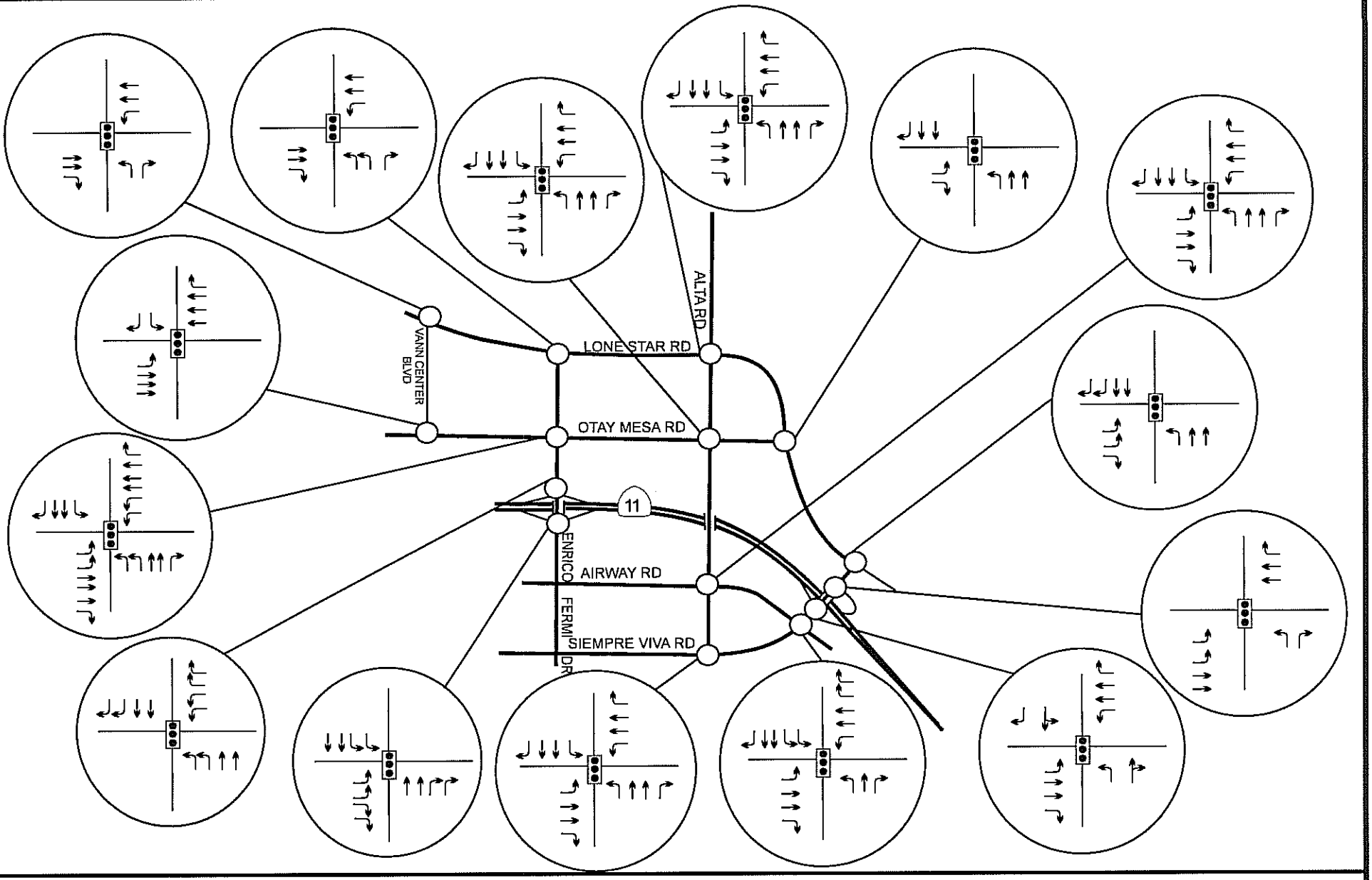


Horizon Year (2035) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-67c

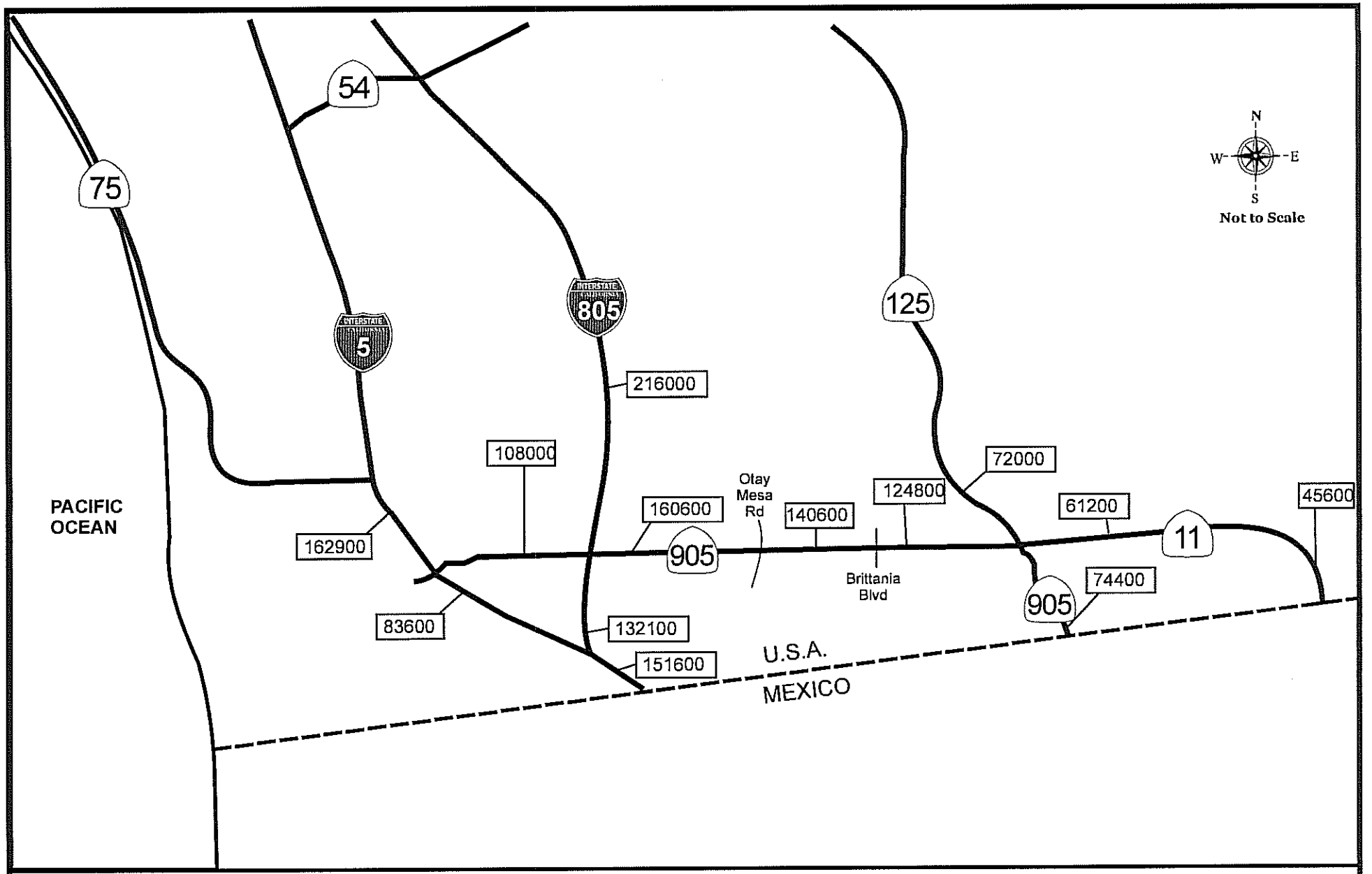


Horizon Year (2035) Intersection Lane Geometry - SR-11/Siempre Viva Road Design Variation

Legend

Direction of Travel Stop Sign Signal

Figure 5-67d



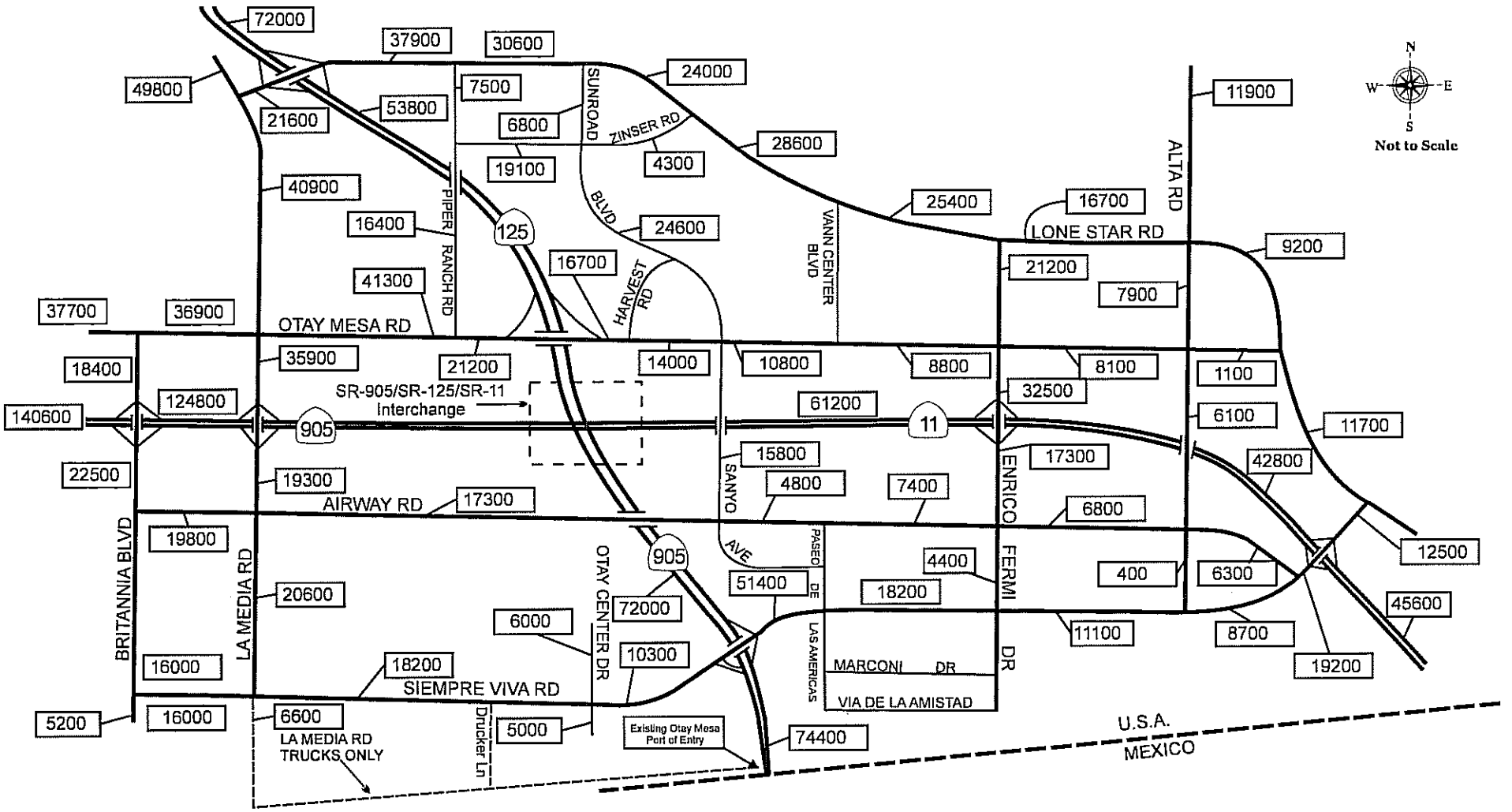
Horizon Year (2035) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-68a



Horizon Year (2035) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

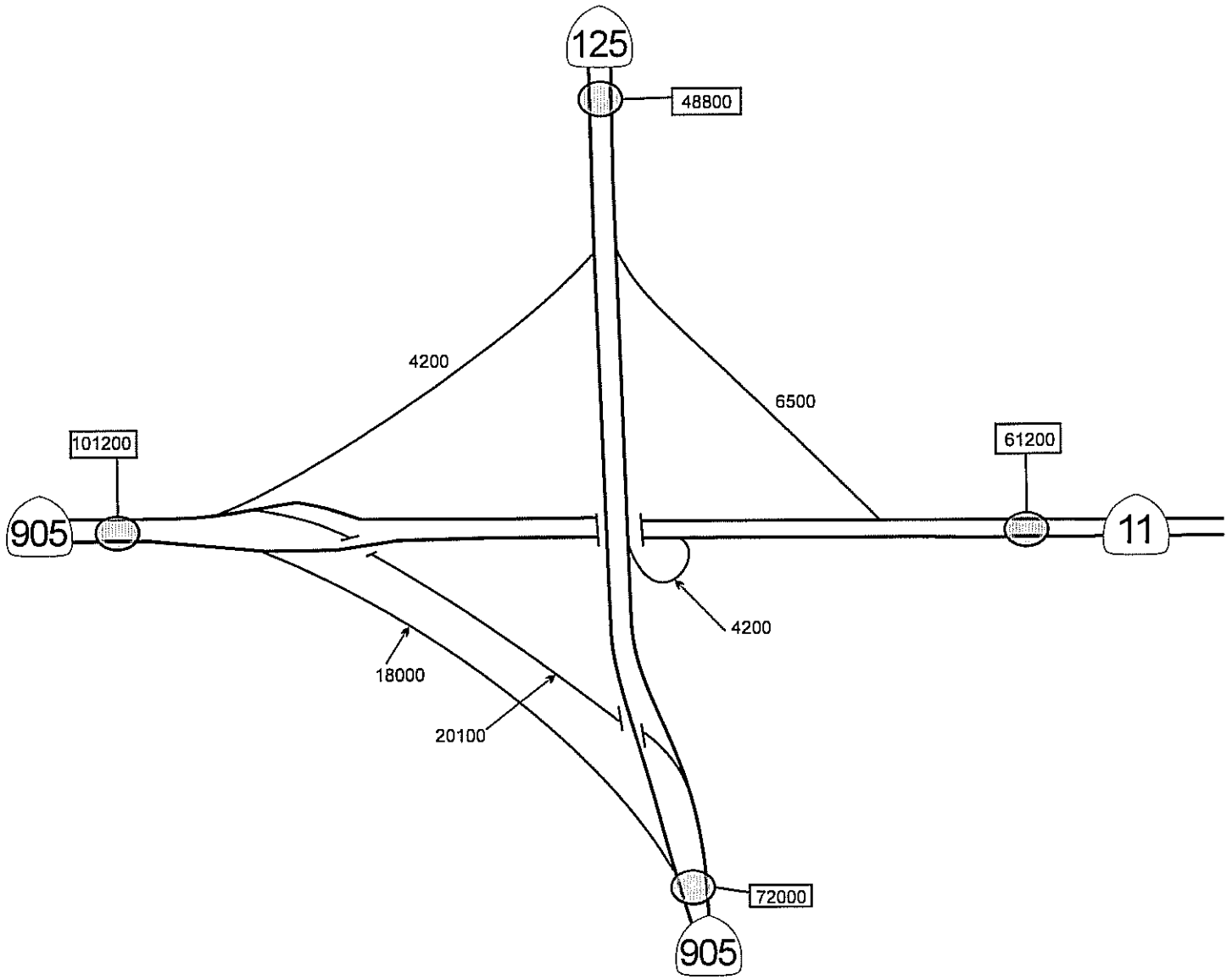
Legend

Existing or Proposed Freeway

Existing or Proposed County/City Roadway

XXXXX Average Daily Traffic

Figure 5-68b

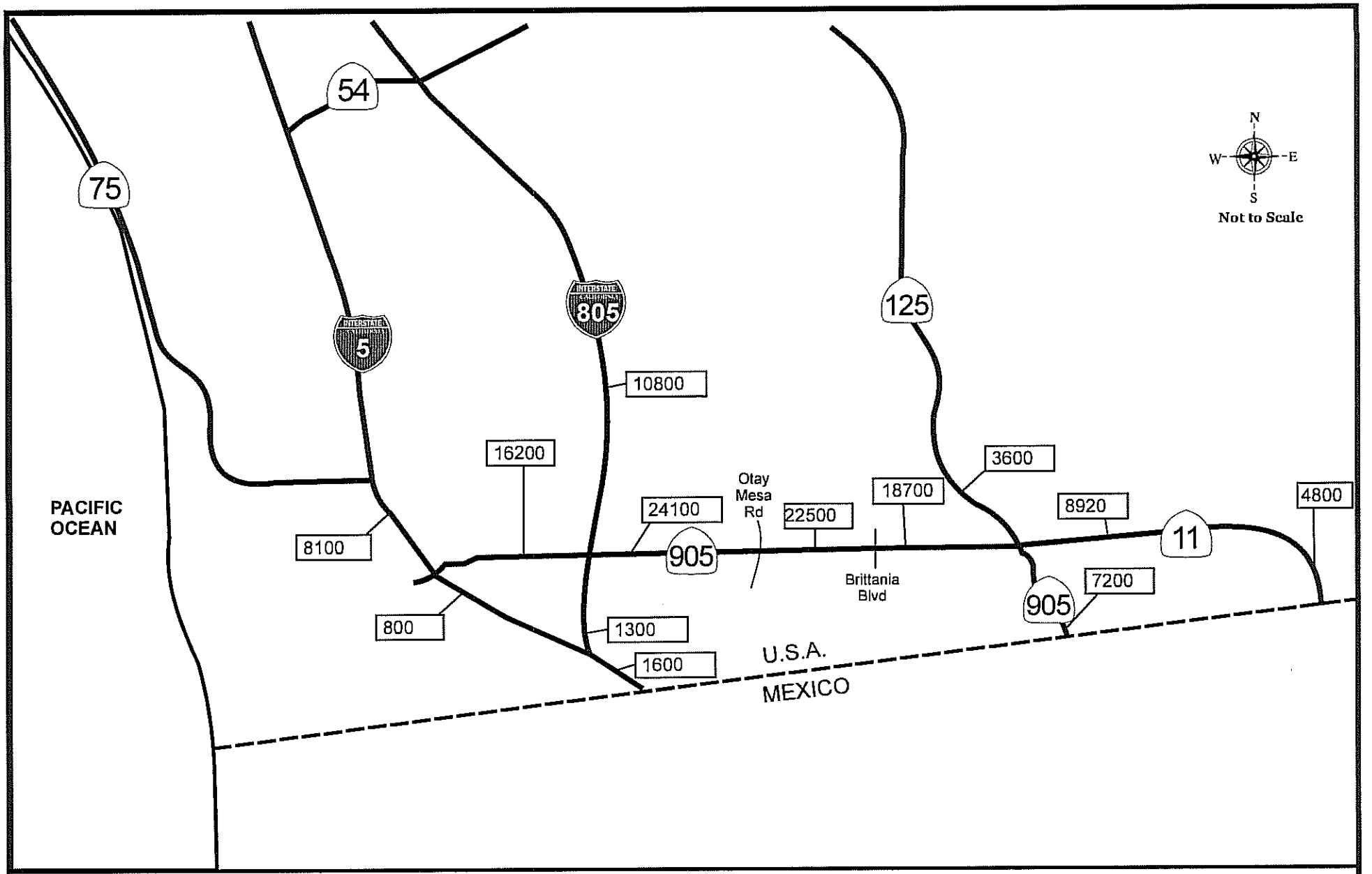


Horizon Year (2035) Average Daily Traffic - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed Ramp
XXXXX Average Daily Traffic

Figure 5-68c



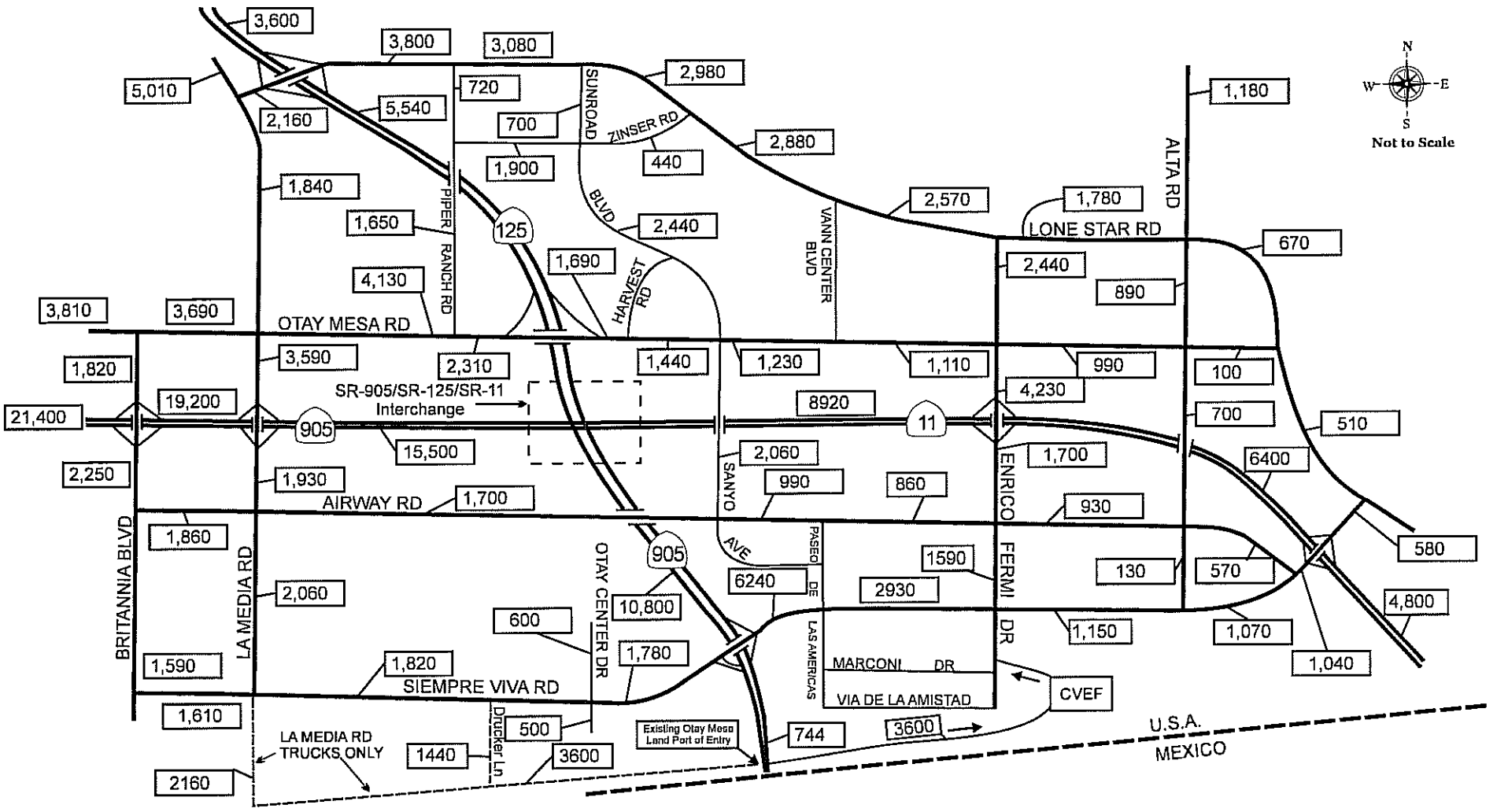
Horizon Year (2035) Daily Truck Trips - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Highway

XXXXX Average Daily Traffic

Figure 5-69a

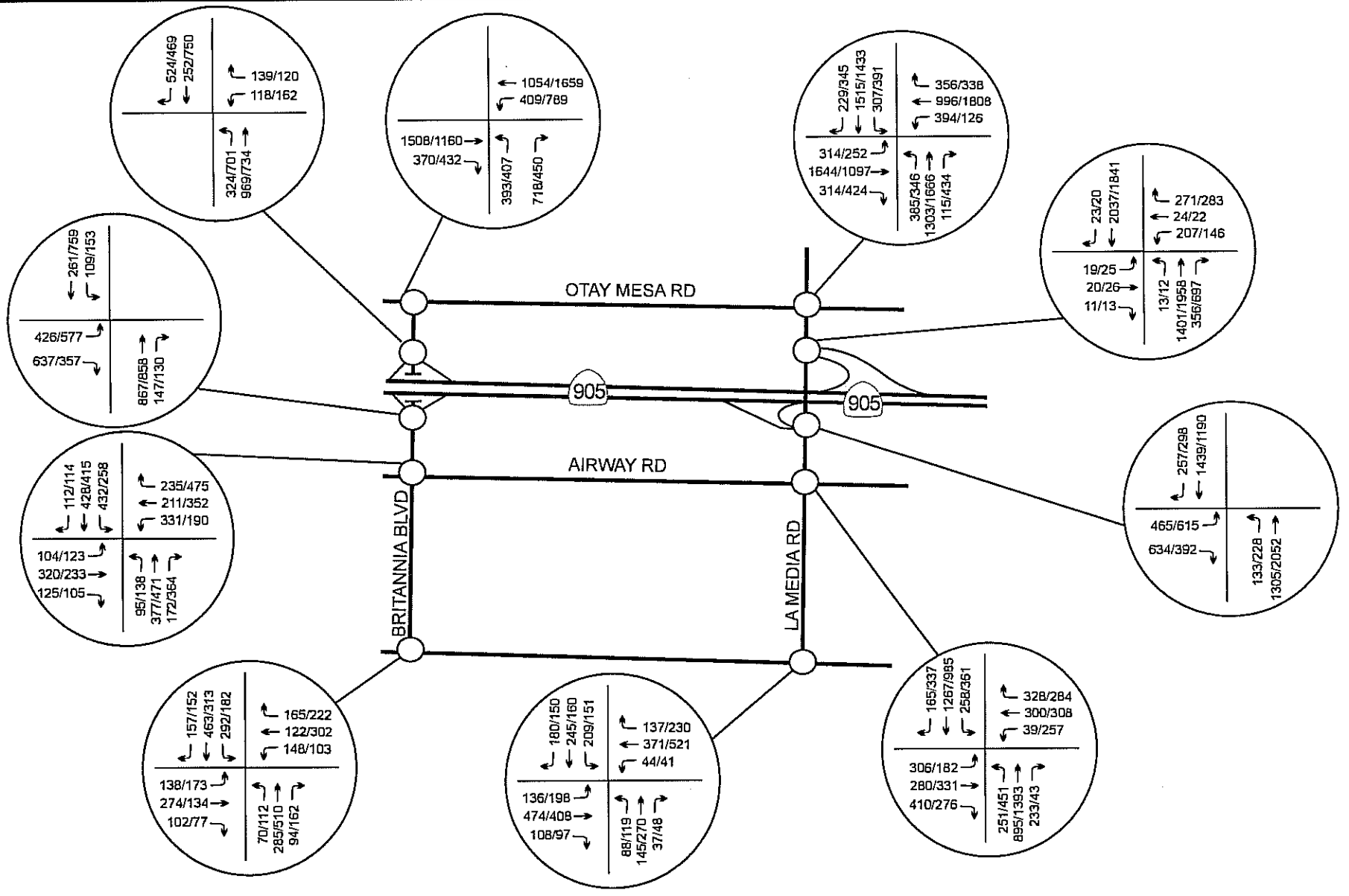


Horizon Year (2035) Daily Truck Trips - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 5-69b

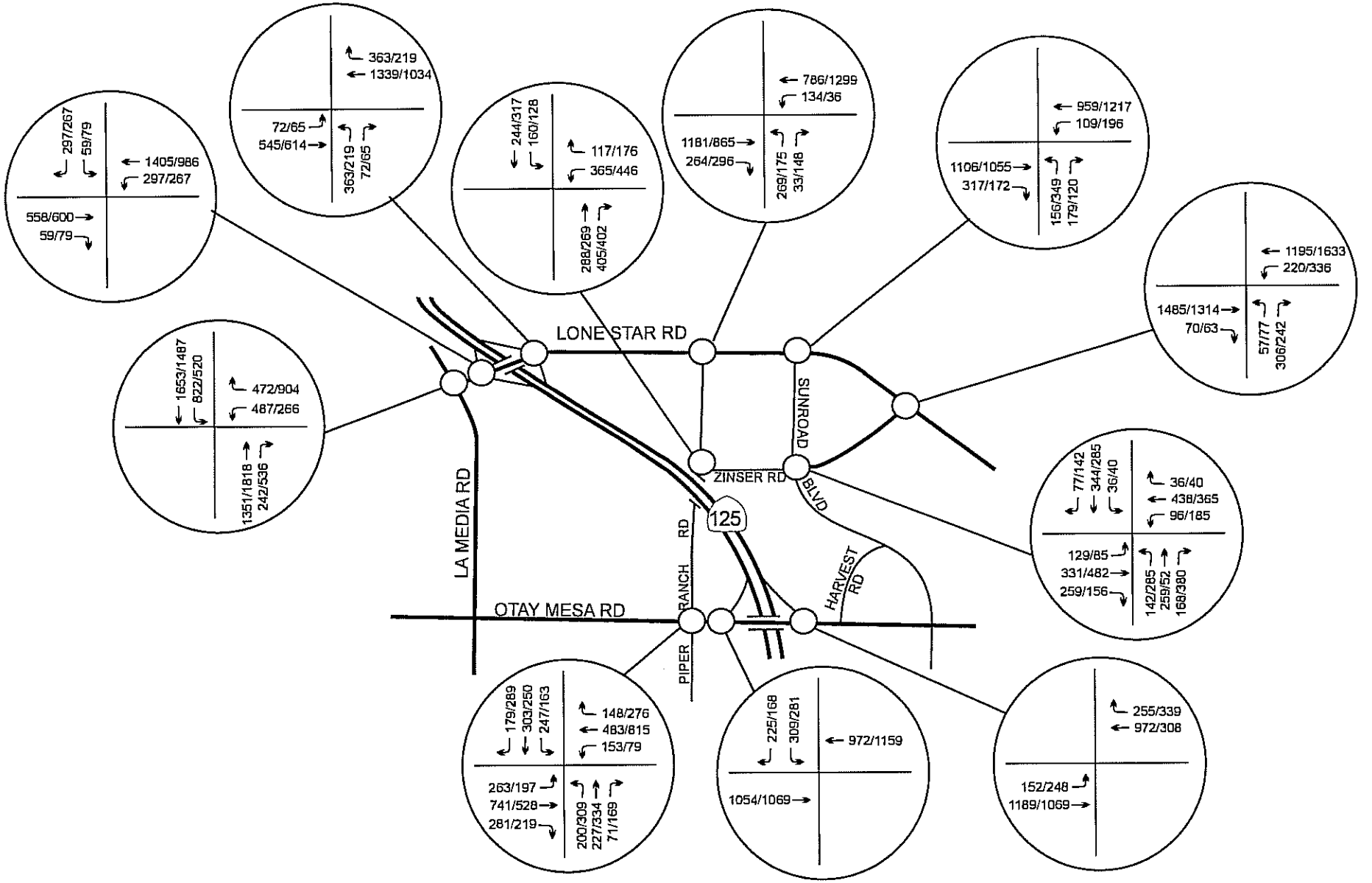


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-70a

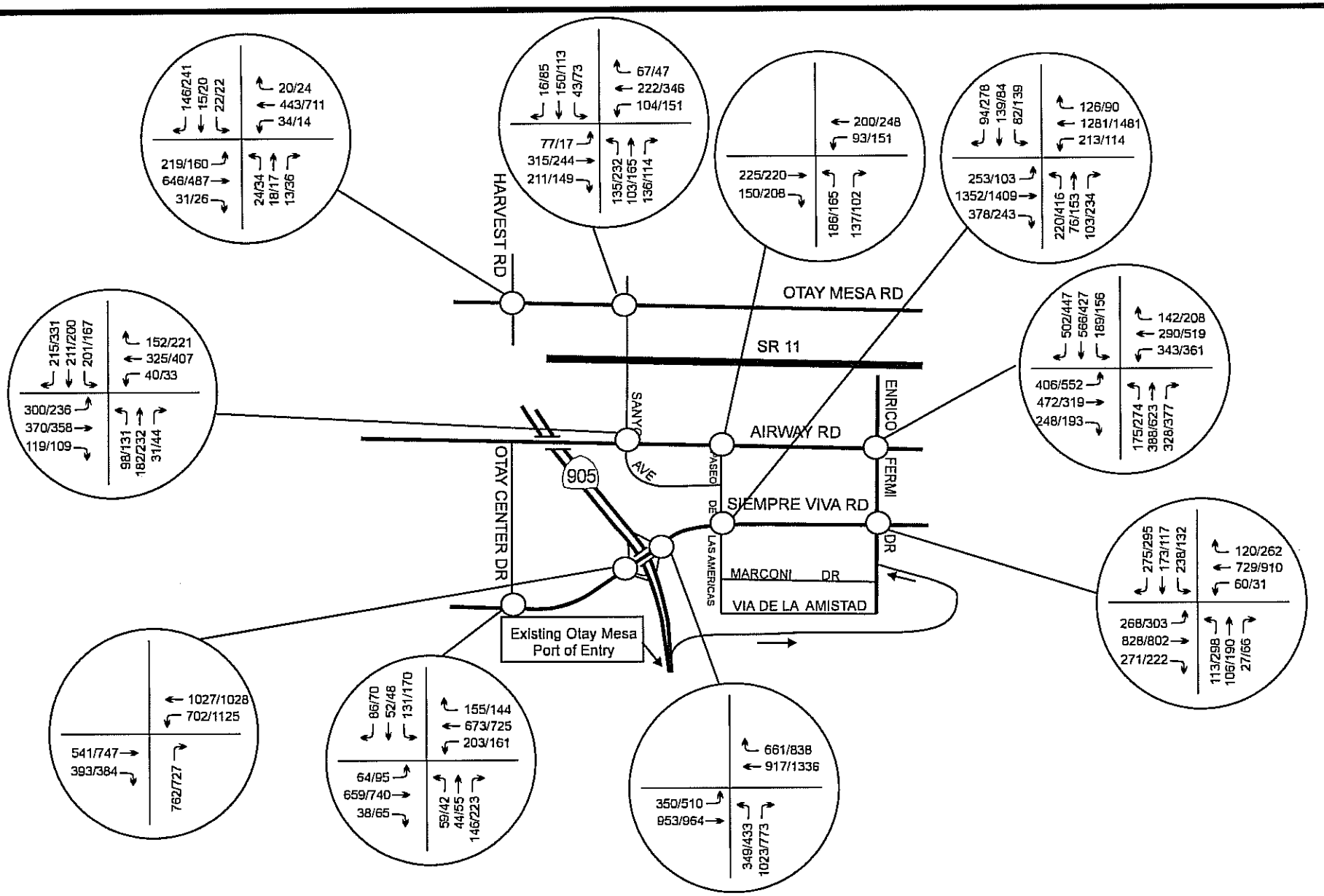


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-70b

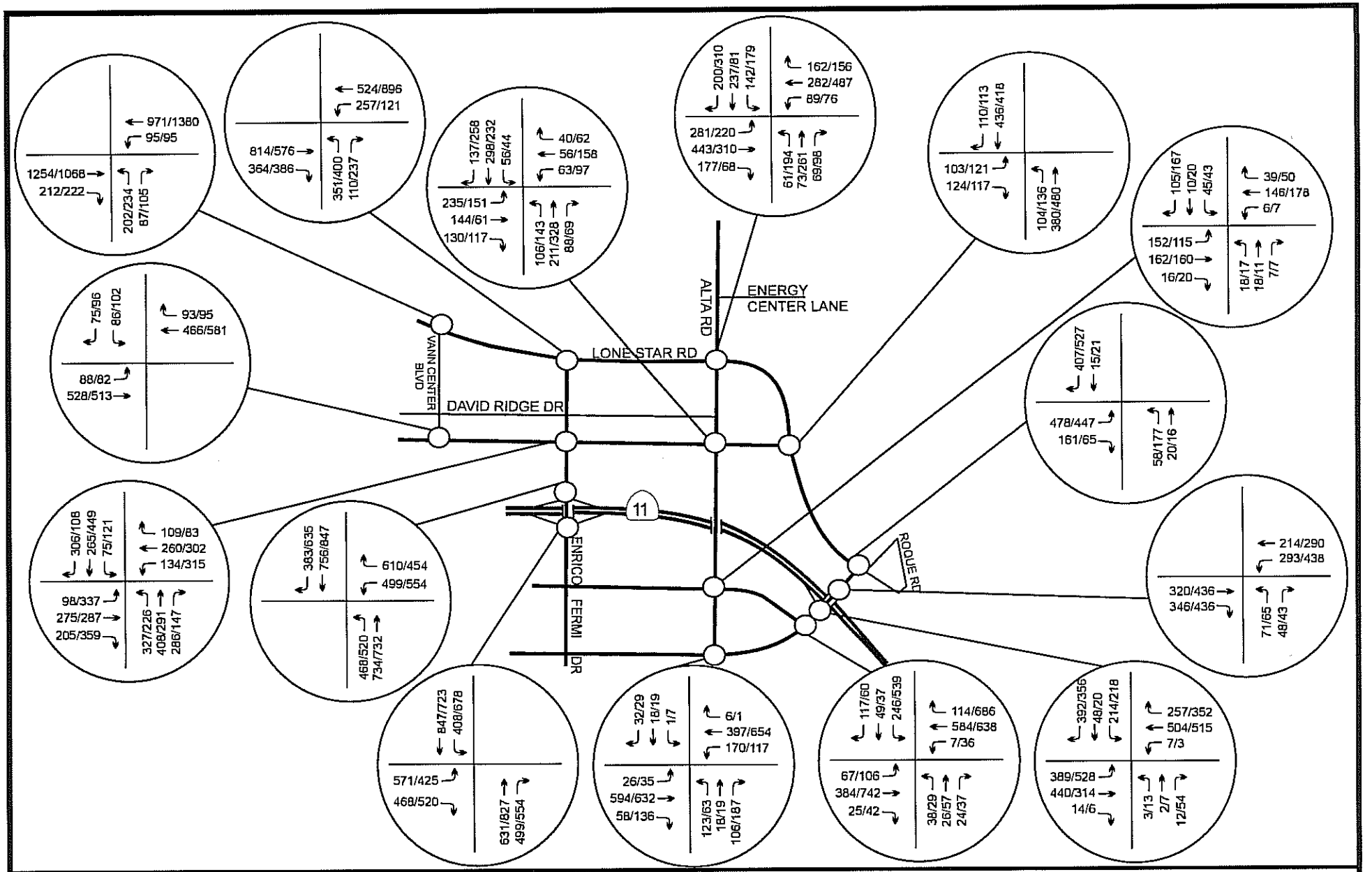


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

- Existing or Proposed Freeway
- Existing or Proposed County/City Roadway
- Key Intersection

Figure 5-70c

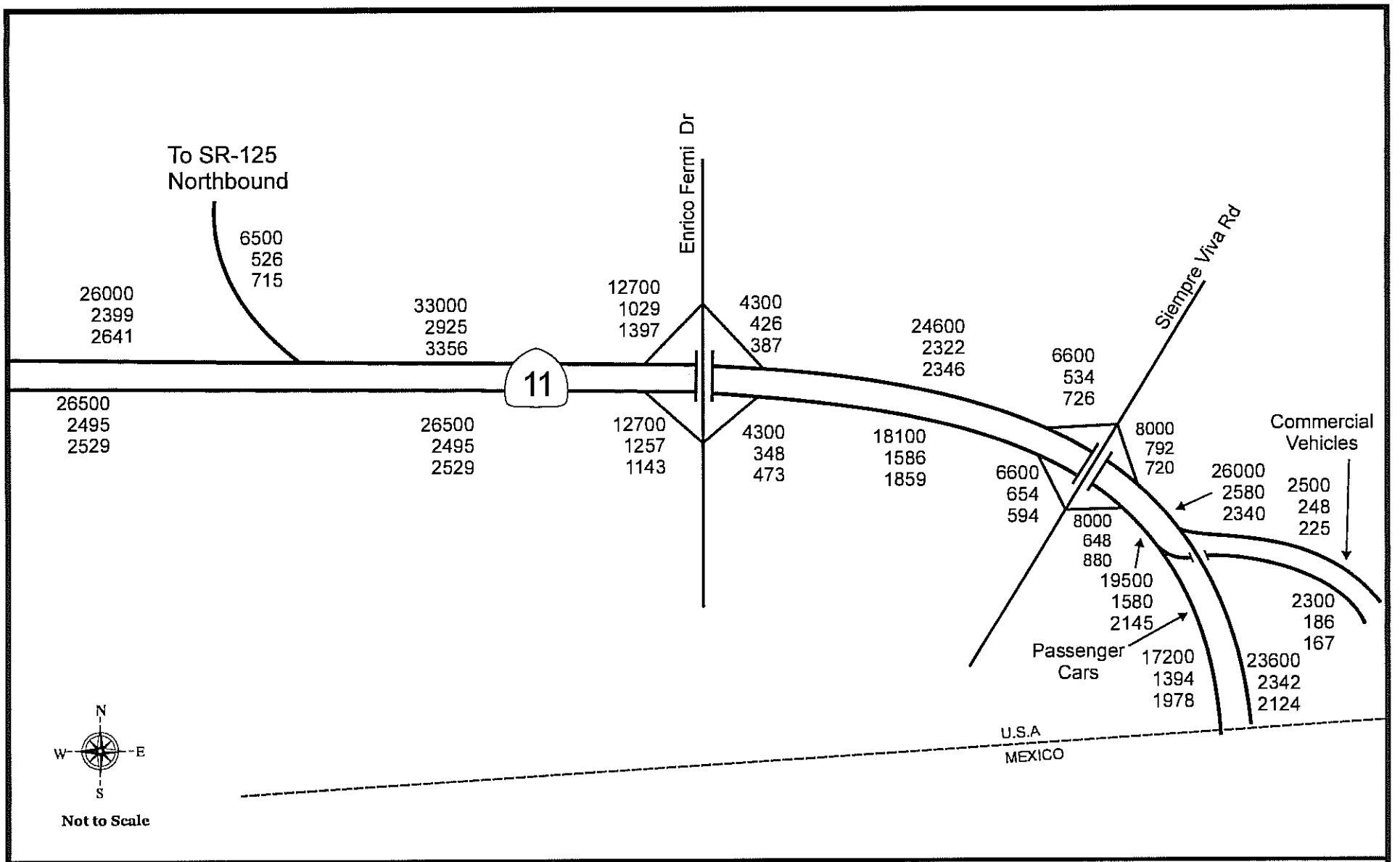


Horizon Year (2035) AM/PM Peak Hour Traffic - Intersections - SR-11/Siempre Viva Road Design Variation

Legend

Existing or Proposed Freeway
Existing or Proposed County/City Roadway
Key Intersection

Figure 5-70d



Horizon Year (2035) AM/PM Peak Hour Traffic - SR-11 Mainline and Ramps - SR-11/Siempre Viva Road Design Variation

Legend

XXXXX Average Daily Traffic
XXXX AM Peak Hour
XXXX PM Peak Hour

Figure 5-70e

Table 5-1
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO BUILD

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	70,600	9.00%	0.55	3,495	4	2	2,000	4,000	5%	0.92	D
	Lone Star Rd to Otay Mesa Rd	52,600	9.00%	0.55	2,604	4	2	2,000	4,000	5%	0.68	C
SR-905	I-5 to I-805	107,600	9.00%	0.55	5,326	6	3	2,000	6,000	15%	1.02	F
	I-805 to Otay Mesa Rd	163,400	9.00%	0.55	8,088	6	3	2,000	6,000	15%	1.55	F
	Otay Mesa Rd to Britannia Blvd	141,600	9.00%	0.55	7,009	6	3	2,000	6,000	15%	1.34	F
	Britannia Blvd to La Media Rd	124,600	9.00%	0.55	6,168	6	3	2,000	6,000	15%	1.18	F
	SR 125/ SR 11 to Siempre Viva Rd	88,400	9.00%	0.55	4,376	6	3	2,000	6,000	15%	0.84	D
	Siempre Viva Rd to International Border (2)	85,400	9.00%	0.55	4,227	6	3	2,000	6,000	15%	0.81	D
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,100	9.00%	0.55	4,113	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	186,200	9.00%	0.55	9,217	12	6	2,000	12,000	1%	0.78	C
I-805	North of SR -905	230,200	9.00%	0.55	11,395	8	4	2,000	8,000	10%	1.57	F
	SR-905 to I-5	152,000	9.00%	0.55	7,524	8	4	2,000	8,000	1%	0.95	E

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-2

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO BUILD

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	40,400	1.01	F
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	30,500	0.82	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	18,400	0.50	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	7,500	0.20	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	3,700	0.10	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	21,100	0.62	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	38,500	0.64	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	45,300	0.76	C
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	17,600	0.29	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	12,600	0.22	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	12,200	0.33	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,500	0.04	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,700	0.52	B
	La Media Rd to Harvest Rd	City	4 Lane Major	40,000	19,400	0.49	B
	Harvest Rd to Paseo De Las Americas	City	4 Lane Major	40,000	4,900	0.12	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	9,200	0.25	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,700	0.29	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	8,200	0.22	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,800	0.28	A
	La Media Rd to Harvest Rd	City	6 Lane Prime	60,000	18,900	0.32	A
	Harvest Rd to SR-905	City	6 Lane Prime	60,000	18,100	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	62,900	1.05	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	25,800	0.43	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	16,500	0.45	B
	Alta Rd to Airway Rd	County	Major Road	37,000	400	0.01	A
	Airway Rd to SR-11	County	Major Road	37,000	3,600	0.10	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	3,600	0.10	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-2

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO BUILD continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	17,900	0.45	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,600	0.57	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	41,100	0.69	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	37,200	0.62	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	20,100	0.50	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,000	0.53	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	8,500	0.25	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	17,400	0.58	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	25,700	0.86	E
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	16,200	0.54	C
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	11,700	0.39	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	20,400	0.36	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	33,600	0.91	E
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	14,200	0.38	A
	South of Siempre Viva Rd	County	Major Road	37,000	1,400	0.04	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	8,700	0.24	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	8,600	0.23	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	500	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-3
Horizon Year (2035)
Intersection Capacity Analysis
No Build

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.7	B	16.9
Lone Star Rd and SR-125 SB Ramps	B	13.7	A	9.2
Lone Star Rd and SR-125 NB Ramps	B	13.0	A	9.0
Lone Star Rd and Piper Ranch Rd	C	20.8	B	10.2
Lone Star Rd and Sunroad Blvd	A	7.1	B	16.6
Lone Star Rd and Zinser Rd	B	10.6	B	13.9
Lone Star Rd and Van Center Blvd	A	7.6	A	9.7
Lone Star Rd and Enrico Fermi Dr	B	13.3	A	9.1
Lone Star Rd and Alta Rd	C	21.8	C	29.7
Lone Star Rd and Otay Mesa Rd	B	10.5	B	13.3
Lone Star Rd and Siempre Viva Rd	B	10.5	B	17.2
Zinser Rd and Piper Ranch Rd	B	14.1	B	15.4
Zinser Rd and Sunroad Blvd	C	26.5	C	32.7
Otay Mesa Rd and Britannia Blvd	B	16.6	B	19.6
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	32.7	C	29.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	7.5	A	8.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.7	A	5.0
Otay Mesa Rd and Harvest Rd	C	22.6	C	20.1
Otay Mesa Rd and Sanyo Ave	B	18.9	C	23.2
Otay Mesa Rd and Van Center Blvd	A	8.5	A	6.9
Otay Mesa Rd and Enrico Fermi Dr	C	26.5	D	41.5
Otay Mesa Rd and Alta Rd	C	26.5	C	26.0
SR 905 WB Ramps and Britannia Blvd	A	8.2	B	13.4
SR 905 EB Ramps and Britannia Blvd	B	13.8	B	17.4
SR 905 WB Off Ramp and La Media Rd	B	15.1	B	13.0
SR 905 EB Ramps and La Media Rd	B	15.0	C	21.0
Enrico Fermi Dr and SR 11	A	3.2	A	2.7
Airway Rd and Britannia Blvd	C	26.9	C	22.5
Airway Rd and La Media Rd	D	39.7	D	44.5
Airway Rd and Sanyo Ave	C	26.2	C	25.0
Airway Rd and Paseo De Las Americas	B	16.2	B	15.9
Airway Rd and Enrico Fermi Dr	C	27.0	C	24.9
Airway Rd and Alta Rd	C	21.5	C	24.3
Siempre Viva Rd and Britannia Blvd	C	28.0	C	25.5
Siempre Viva Rd and La Media Rd	C	24.2	C	29.4
Siempre Viva Rd and Otay Center Dr	C	26.9	C	26.6
Siempre Viva Rd and SR-905 SB Ramps	A	8.9	B	11.3
Siempre Viva Rd and SR-905 NB Ramps	D	44.6	D	50.1
Siempre Viva Rd and Paseo De Las Americas	D	38.6	D	53.4
Siempre Viva Rd and Enrico Fermi Dr	C	34.8	C	34.5
Siempre Viva Rd and Alta Rd	C	27.4	B	18.1
Siempre Viva Rd and Airway Rd	B	14.6	B	16.8

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-4
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 Off Ramp to Enrico Fermi Dr Off Ramp	Freeway	2453		2560		3		B	17.8	B	16.3
Enrico Fermi Dr Off Ramp	Diverge	2453	1082	2560	981	2	2	B (3)	14.7 (3)	B (3)	15.7 (3)
Enrico Fermi Dr On Ramp	Merge	1371	834	1579	1133	2	1	C (3)	22.3 (3)	C (3)	26.8 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	2205		2712		3		B	14.6	B	18.0
Siempre Viva Rd Off Ramp	Diverge	2205	625	2712	567	2	1	B (3)	12.3 (3)	C (3)	26.2 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1580	1394	2145	1978	2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1394		1978		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2342		2124		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd On Ramp	Merge	2590	583	2349	792	3	1	C	20.7	C	21.2
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	3173		3141		3		C	20.2	C	19.9
Enrico Fermi Dr Off Ramp	Diverge	3173	1020	3141	927	2	2	C (3)	21.7 (3)	C (3)	21.4 (3)
Enrico Fermi Dr On Ramp	Merge	2153	1102	2214	1496	2	1	D (3)	30.5 (3)	D (3)	34.4 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	3255		3710		3		C	20.7	C	23.6
SR-125 Off Ramp	Diverge	3255	575	3710	781	2	1	D (3)	31.5 (3)	E (3)	35.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-5
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	71,000	9.00%	0.55	3,515	4	2	2,000	4,000	5%	0.92	E
	Lone Star Rd to Otay Mesa Rd	52,400	9.00%	0.55	2,594	4	2	2,000	4,000	5%	0.68	C
SR-905	I-5 to I-805	110,000	9.00%	0.55	5,445	6	3	2,000	6,000	15%	1.04	F
	I-805 to Otay Mesa Rd	164,300	9.00%	0.55	8,133	6	3	2,000	6,000	15%	1.56	F
	Otay Mesa Rd to Britannia Blvd	144,800	9.00%	0.55	7,168	6	3	2,000	6,000	15%	1.37	F
	Britannia Blvd to La Media Rd	129,600	9.00%	0.55	6,415	6	3	2,000	6,000	15%	1.23	F
	SR 125/ SR 11 to Siempre Viva Rd	74,000	9.00%	0.55	3,663	6	3	2,000	6,000	15%	0.70	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	163,900	9.00%	0.55	8,113	8	4	2,000	8,000	10%	1.12	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	217,900	9.00%	0.55	10,786	8	4	2,000	8,000	10%	1.48	F
	SR-905 to I-5	132,200	9.00%	0.55	6,544	8	4	2,000	8,000	1%	0.83	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-6
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	21,600	0.54	C
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	39,000	0.98	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	29,100	0.79	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	17,800	0.48	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,700	0.18	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	5,100	0.14	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	19,000	0.56	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	36,900	0.62	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	41,300	0.69	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	17,900	0.45	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	12,100	0.21	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,900	0.27	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	18,600	0.47	B
	La Media Rd to Sanyo Rd	City	4 Lane Major	40,000	17,000	0.43	B
	Sanyo Rd to Paseo De Las Americas	City	4 Lane Major	40,000	9,900	0.25	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	8,600	0.23	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,300	0.25	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,700	0.15	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,100	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,200	0.30	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	17,800	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	54,400	0.91	D
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	21,300	0.36	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	12,500	0.34	A
	Alta Rd to Airway Rd	County	Major Road	37,000	11,700	0.32	A
	Airway Rd to SR-11	County	Major Road	37,000	11,400	0.31	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	4,800	0.13	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-6
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - TWO INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,200	0.46	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,500	0.56	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	15,900	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	41,000	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	35,900	0.60	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	19,300	0.32	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,600	0.52	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,200	0.21	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	16,500	0.55	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	25,400	0.85	E
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	17,900	0.45	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	12,300	0.31	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	24,400	0.66	B
	Otay Mesa Rd to SR-11	County	Major Road	37,000	44,300	1.20	F
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	17,800	0.48	B
	South of Siempre Viva Rd	County	Major Road	37,000	1,900	0.05	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	8,900	0.24	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	7,000	0.19	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,300	0.04	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-7
Horizon Year (2035)
Intersection Capacity Analysis
Two Interchange Alternative

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	23.4	C	21.0
Lone Star Rd and SR-125 SB Ramps	C	21.2	C	23.9
Lone Star Rd and SR-125 NB Ramps	B	11.8	B	10.5
Lone Star Rd and Piper Ranch Rd	B	16.9	B	10.9
Lone Star Rd and Sunroad Blvd	A	9.1	B	19.0
Lone Star Rd and Zinser Rd	B	13.8	B	15.4
Lone Star Rd and Van Center Blvd	A	9.7	B	12.3
Lone Star Rd and Enrico Fermi Dr	B	15.0	B	10.5
Lone Star Rd and Alta Rd	C	21.8	C	28.1
Lone Star Rd and Otay Mesa Rd	A	8.7	A	9.2
Lone Star Rd and Siempre Viva Rd	A	9.9	B	15.4
Zinser Rd and Piper Ranch Rd	B	12.8	B	13.6
Zinser Rd and Sunroad Blvd	C	23.5	C	28.1
Otay Mesa Rd and Britannia Blvd	B	17.6	C	22.0
Otay Mesa Rd and La Media Rd	E	74.1	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	27.3	C	25.9
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.3	A	8.7
Otay Mesa Rd and SR-125 NB On Ramp	A	2.5	A	3.9
Otay Mesa Rd and Harvest Rd	B	19.4	B	17.7
Otay Mesa Rd and Sanyo Ave	C	22.9	C	25.7
Otay Mesa Rd and Van Center Blvd	A	7.7	A	8.0
Otay Mesa Rd and Enrico Fermi Dr	C	25.4	F	>80.0
Otay Mesa Rd and Alta Rd	C	21.2	C	21.9
SR 905 WB Ramps and Britannia Blvd	A	8.5	B	12.8
SR 905 EB Ramps and Britannia Blvd	B	14.5	B	15.0
SR 905 WB Off Ramp and La Media Rd	B	10.2	B	12.7
SR 905 EB Ramps and La Media Rd	B	15.1	B	18.4
SR 11 WB Ramps and Enrico Fermi Dr	B	19.8	C	26.6
SR 11 EB Ramps and Enrico Fermi Dr	C	21.8	C	23.1
SR 11 WB On Ramp and Siempre Viva Rd	A	5.4	A	4.4
SR 11 EB Off Ramp and Siempre Viva Rd	A	8.0	B	10.4
Airway Rd and Britannia Blvd	C	26.5	C	21.6
Airway Rd and La Media Rd	D	40.3	D	39.2
Airway Rd and Sanyo Ave	C	25.4	C	25.1
Airway Rd and Paseo De Las Americas	B	15.0	B	14.4
Airway Rd and Enrico Fermi Dr	C	23.4	C	34.1
Airway Rd and Alta Rd	B	19.8	C	21.6
Siempre Viva Rd and Britannia Blvd	C	22.8	C	24.5
Siempre Viva Rd and La Media Rd	C	21.1	C	24.1
Siempre Viva Rd and Otay Center Dr	C	26.5	C	31.6
Siempre Viva Rd and SR-905 SB Ramps	A	8.2	A	9.5
Siempre Viva Rd and SR-905 NB Ramps	C	27.4	C	29.6
Siempre Viva Rd and Paseo De Las Americas	D	38.9	D	50.8
Siempre Viva Rd and Enrico Fermi Dr	C	29.3	C	28.3
Siempre Viva Rd and Alta Rd	C	30.2	B	19.3
Siempre Viva Rd and Airway Rd	C	21.4	C	21.9

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-8
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 Off Ramp to Alta Rd Off Ramp	Freeway	1772		1916		2		C	20.8	C	21.9
Alta Rd Off Ramp	Diverge	1772	1083	1916	981	2	1	C	20.5	C	21.6
Alta Rd On Ramp	Merge (3)	689	891	935	1210	2	1	B	16.4	C	21.5
Alta Rd On Ramp to Passenger Car Off Ramp	Weave (4)	1580		2145		3		B	13.7	C	20.2
Passenger Car Off Ramp	Diverge (3)	1580	1394	2145	1978	2	2	A	6.2	B	11.7
South of Alta Rd (Passenger Cars only)	Freeway	1394		1978		2		B	12.7	B	17.9
South of Alta Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
Westbound											
South of Alta Rd (Passenger Cars Only)	Freeway	2342		2124		2		C	21.3	C	19.3
South of Alta Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Passenger Car On Ramp	Merge (3)	248	2342	225	2124	2	1	C	25.0	C	22.9
Passenger Car On Ramp to Alta Rd Off Ramp	Weave (5)	2590		2349		3		C	26.1	C	23.0
Alta Rd Off Ramp	Diverge (3)	2590	1089	2349	990	2	1	C	25.0	C	22.7
Alta Rd On Ramp	Merge	1501	1175	1359	1595	2	1	C	25.4	C	27.6
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	2675		2954		2		D	26.1	D	28.9
SR-125 Off Ramp	Diverge	2676	543	2954	737	2	1	C	25.8	D	28.6

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Ramp capacity analysis is shown for information only, since this is technically part of a weaving section
(4) For weaving volumes, see Figure 5 -15e. The ramp to ramp movement was assumed to be 802 in the AM peak hour and 1089 in the PM peak hour. The weaving distance is 1400ft
(5) For weaving volumes, see Figure 5 -15e. The ramp to ramp movement was assumed to be 980 in the AM peak hour and 891 in the PM peak hour. The weaving distance is 2200ft

Table 5-9
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	71,000	9.00%	0.55	3,515	4	2	2,000	4,000	5%	0.92	E
	Lone Star Rd to Otay Mesa Rd	52,400	9.00%	0.55	2,594	4	2	2,000	4,000	5%	0.68	C
SR-905	I-5 to I-805	109,100	9.00%	0.55	5,400	6	3	2,000	6,000	15%	1.04	F
	I-805 to Otay Mesa Rd	162,300	9.00%	0.55	8,034	6	3	2,000	6,000	15%	1.54	F
	Otay Mesa Rd to Britannia Blvd	141,800	9.00%	0.55	7,019	6	3	2,000	6,000	15%	1.35	F
	Britannia Blvd to La Media Rd	125,800	9.00%	0.55	6,227	6	3	2,000	6,000	15%	1.19	F
	SR 125/ SR 11 to Siempre Viva Rd	80,800	9.00%	0.55	4,000	6	3	2,000	6,000	15%	0.77	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	163,900	9.00%	0.55	8,113	8	4	2,000	8,000	10%	1.12	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	216,900	9.00%	0.55	10,737	8	4	2,000	8,000	10%	1.48	F
	SR-905 to I-5	131,900	9.00%	0.55	6,529	8	4	2,000	8,000	1%	0.82	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-10
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	21,900	0.55	C
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	39,900	1.00	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	32,700	0.88	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	16,700	0.45	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	5,900	0.16	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	3,800	0.10	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	20,700	0.61	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	37,900	0.63	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	35,600	0.59	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	20,600	0.52	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	12,800	0.22	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,200	0.28	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	4,000	0.11	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,400	0.51	B
	La Media Rd to Sanyo Ave	City	4 Lane Major	40,000	18,100	0.45	B
	Sanyo Ave to Paseo De Las Americas	City	4 Lane Major	40,000	11,200	0.28	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	9,700	0.26	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,600	0.21	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	16,600	0.45	B
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,200	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,500	0.31	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	17,800	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	60,500	1.01	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	23,600	0.39	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	13,500	0.36	A
	Alta Rd to Airway Rd	County	Major Road	37,000	13,500	0.36	A
	Airway Rd to SR-11	County	Major Road	37,000	3,600	0.10	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	3,600	0.10	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-10
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - ONE INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,600	0.47	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,700	0.57	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,700	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	38,300	0.64	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	19,600	0.33	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,700	0.52	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,300	0.21	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	18,200	0.61	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,400	0.22	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	23,600	0.79	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	22,400	0.56	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	12,500	0.31	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	19,000	0.51	B
	Otay Mesa Rd to SR-11	County	Major Road	37,000	12,700	0.34	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,300	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,100	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,900	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	14,700	0.40	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	35,600	0.96	E
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	12,300	0.33	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-11
Horizon Year (2035)
Intersection Capacity Analysis
One Interchange Alternative

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	25.3	B	15.4
Lone Star Rd and SR-125 SB Ramps	B	15.2	C	23.2
Lone Star Rd and SR-125 NB Ramps	B	15.7	B	13.0
Lone Star Rd and Piper Ranch Rd	B	19.7	C	23.6
Lone Star Rd and Sunroad Blvd	A	8.7	B	15.5
Lone Star Rd and Zinser Rd	B	13.4	D	41.7
Lone Star Rd and Van Center Blvd	B	10.1	B	10.7
Lone Star Rd and Enrico Fermi Dr	B	13.7	B	13.0
Lone Star Rd and Alta Rd	C	23.4	C	28.4
Lone Star Rd and Otay Mesa Rd	B	12.7	C	21.6
Lone Star Rd and Siempre Viva Rd	B	11.7	B	13.6
Zinser Rd and Piper Ranch Rd	B	14.9	B	13.5
Zinser Rd and Sunroad Blvd	C	25.0	C	33.4
Otay Mesa Rd and Britannia Blvd	B	18.1	B	15.8
Otay Mesa Rd and La Media Rd	E	69.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	31.5	C	26.5
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.2	A	8.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.3	A	4.9
Otay Mesa Rd and Harvest Rd	B	19.9	C	20.4
Otay Mesa Rd and Sanyo Ave	C	23.7	C	23.4
Otay Mesa Rd and Van Center Blvd	A	9.7	B	14.8
Otay Mesa Rd and Enrico Fermi Dr	C	23.1	C	29.4
Otay Mesa Rd and Alta Rd	D	53.1	D	38.0
SR 905 WB Ramps and Britannia Blvd	B	10.4	B	16.2
SR 905 EB Ramps and Britannia Blvd	B	13.2	B	17.7
SR 905 WB Off Ramp and La Media Rd	B	10.3	B	12.2
SR 905 EB Ramps and La Media Rd	B	13.6	B	16.1
SR 11 WB Ramps and Alta Rd	B	18.3	C	24.7
SR 11 EB Ramps and Alta Rd	B	15.7	C	20.9
Airway Rd and Britannia Blvd	C	32.9	C	29.0
Airway Rd and La Media Rd	D	42.4	D	42.8
Airway Rd and Sanyo Ave	C	27.7	C	25.3
Airway Rd and Paseo De Las Americas	B	18.1	B	16.7
Airway Rd and Enrico Fermi Dr	C	25.6	C	30.8
Airway Rd and Alta Rd	C	29.6	C	30.3
Siempre Viva Rd and Britannia Blvd	C	22.8	C	23.5
Siempre Viva Rd and La Media Rd	C	21.5	C	23.1
Siempre Viva Rd and Otay Center Dr	C	28.9	C	29.9
Siempre Viva Rd and SR-905 SB Ramps	B	13.5	B	14.1
Siempre Viva Rd and SR-905 NB Ramps	C	31.1	D	37.3
Siempre Viva Rd and Paseo De Las Americas	D	36.0	D	38.2
Siempre Viva Rd and Enrico Fermi Dr	C	29.4	C	23.3
Siempre Viva Rd and Alta Rd	C	31.6	D	36.9
Siempre Viva Rd and Airway Rd	B	17.3	C	21.0

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-12
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 Off Ramp to Siempre Viva Rd	Freeway	1580		2145		2		B	15.4	C	21.0
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1394		1978		2		B	13.6	C	19.3
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2342		2124		2		C	22.9	C	20.8
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd to SR-125 Off Ramp	Freeway	2590		2349		2		C	25.3	C	23.0
SR-125 Off Ramp	Diverge	2590	696	2349	946	2	1	D	31.0	D	31.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 5-13
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	74,900	9.00%	0.55	3,708	4	2	2,000	4,000	5%	0.97	E
	Lone Star Rd to Otay Mesa Rd	61,100	9.00%	0.55	3,024	4	2	2,000	4,000	5%	0.79	D
SR-905	I-5 to I-805	109,400	9.00%	0.55	5,415	6	3	2,000	6,000	15%	1.04	F
	I-805 to Otay Mesa Rd	163,700	9.00%	0.55	8,103	6	3	2,000	6,000	15%	1.55	F
	Otay Mesa Rd to Britannia Blvd	153,300	9.00%	0.55	7,588	6	3	2,000	6,000	15%	1.45	F
	Britannia Blvd to La Media Rd	130,300	9.00%	0.55	6,450	6	3	2,000	6,000	15%	1.24	F
	SR 125/ SR 11 to Siempre Viva Rd	94,000	9.00%	0.55	4,653	6	3	2,000	6,000	15%	0.89	D
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	216,600	9.00%	0.55	10,722	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	131,400	9.00%	0.55	6,504	8	4	2,000	8,000	1%	0.82	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-14

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	44,800	1.12	F
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	38,200	1.03	F
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	20,000	0.54	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,500	0.18	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,300	0.12	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	24,800	0.73	C
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	39,700	0.66	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	20,500	0.34	A
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	20,500	0.34	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	17,200	0.30	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,800	0.21	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	2,400	0.06	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	22,300	0.56	C
	La Media Rd to Harvest Rd	City	4 Lane Major	40,000	25,400	0.64	C
	Harvest Rd to Paseo De Las Americas	City	4 Lane Major	40,000	8,600	0.22	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	18,800	0.51	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,800	0.29	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,400	0.15	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	18,600	0.31	A
	La Media Rd to Harvest Rd	City	6 Lane Prime	60,000	21,500	0.36	A
	Harvest Rd to SR-905	City	6 Lane Prime	60,000	18,800	0.31	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	78,500	1.31	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	38,000	0.63	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	18,000	0.49	B
	Alta Rd to Airway Rd	County	Major Road	37,000	9,000	0.24	A
	Airway Rd to SR-11	County	Major Road	37,000	4,300	0.12	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	4,300	0.12	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-14

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO INTERCHANGE ALTERNATIVE continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	19,400	0.49	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	25,000	0.63	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	17,700	0.44	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	42,600	0.71	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	45,000	0.75	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,600	0.57	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,400	0.54	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	9,800	0.29	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	19,700	0.66	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	6,300	0.18	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	24,600	0.82	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	24,600	0.82	D
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	10,500	0.35	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	9,000	0.16	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	14,100	0.38	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	7,300	0.20	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,300	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,800	0.21	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	8,300	0.22	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,900	0.05	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-15
Horizon Year (2035)
Intersection Capacity Analysis
No Interchange Alternative

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	25.8	C	21.5
Lone Star Rd and SR-125 SB Ramps	B	12.9	C	23.8
Lone Star Rd and SR-125 NB Ramps	B	12.4	B	13.2
Lone Star Rd and Piper Ranch Rd	C	29.4	B	11.6
Lone Star Rd and Sunroad Blvd	C	22.2	C	26.2
Lone Star Rd and Zinser Rd	B	19.7	B	15.3
Lone Star Rd and Van Center Blvd	B	19.9	B	17.2
Lone Star Rd and Enrico Fermi Dr	B	16.7	B	16.8
Lone Star Rd and Alta Rd	C	21.9	C	26.7
Lone Star Rd and Otay Mesa Rd	B	10.8	B	11.0
Lone Star Rd and Siempre Viva Rd	B	11.8	B	13.7
Zinser Rd and Piper Ranch Rd	B	14.4	B	12.6
Zinser Rd and Sunroad Blvd	C	25.7	C	31.0
Otay Mesa Rd and Britannia Blvd	B	19.5	C	21.9
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	39.3	D	36.9
Otay Mesa Rd and SR-125 SB Off Ramp	B	11.0	B	11.8
Otay Mesa Rd and SR-125 NB On Ramp	B	12.3	A	2.4
Otay Mesa Rd and Harvest Rd	C	21.5	B	17.9
Otay Mesa Rd and Sanyo Ave	C	21.4	C	28.2
Otay Mesa Rd and Van Center Blvd	A	8.3	B	10.7
Otay Mesa Rd and Enrico Fermi Dr	C	23.2	D	37.3
Otay Mesa Rd and Alta Rd	C	21.6	C	21.4
SR 905 Britannia Blvd WB Ramps	B	12.2	B	13.6
SR 905 Britannia Blvd EB Ramps	B	11.8	B	15.8
SR 905 La Media Rd WB Off Ramp	C	17.9	E	65.9
SR 905 La Media Rd EB Ramps	B	30.3	C	24.0
Airway Rd and Britannia Blvd	C	28.2	C	24.5
Airway Rd and La Media Rd	D	43.5	D	41.7
Airway Rd and Sanyo Ave	C	27.0	D	35.2
Airway Rd and Paseo De Las Americas	B	16.4	B	19.4
Airway Rd and Enrico Fermi Dr	C	29.2	D	35.4
Airway Rd and Alta Rd	C	20.8	B	18.5
Siempre Viva Rd and Britannia Blvd	C	26.5	C	31.9
Siempre Viva Rd and La Media Rd	C	23.3	C	24.6
Siempre Viva Rd and Otay Center Dr	D	36.3	D	40.8
Siempre Viva Rd and SR-905 SB Ramps	B	12.0	D	42.3
Siempre Viva Rd and SR-905 NB Ramps	E	62.1	E	72.3
Siempre Viva Rd and Paseo De Las Americas	E	68.1	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	D	43.3	E	62.0
Siempre Viva Rd and Alta Rd	B	16.2	C	23.9
Siempre Viva Rd and Airway Rd	C	26.4	C	26.1

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-16
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 Off Ramp to Enrico Fermi Dr Off Ramp	Freeway	2893		3032		3		C	18.4	C	19.3
Enrico Fermi Dr Off Ramp	Diverge	2893	933	3032	846	2	2	B (3)	19.0 (3)	C (3)	20.3 (3)
Enrico Fermi Dr On Ramp	Merge	1960	923	2186	1254	2	1	D (3)	28.5 (3)	D (3)	33.4 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	2883		3440		3		C	19.1	C	21.8
Siempre Viva Rd Off Ramp	Diverge	2883	1051	3440	954	2	1	B (3)	18.9 (3)	C (3)	24.3 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1832	218	2486	196	2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	218		196		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1613		2288		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2709		2457		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	288		261		2		A	2.5	A	2.3
Siempre Viva Rd On Ramp	Merge	2997	931	2718	1265	3	1	C	20.7	C	21.2
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	3928		3983		3		C	20.2	C	19.9
Enrico Fermi Dr Off Ramp	Diverge	3928	1129	3983	1026	2	2	C (3)	21.7 (3)	C (3)	21.4 (3)
Enrico Fermi Dr On Ramp	Merge	2826	1053	2957	1430	2	1	D (3)	30.5 (3)	D (3)	34.4 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	3879		4387		3		C	20.7	C	23.6
SR-125 Off Ramp	Diverge	3879	769	4387	1045	2	1	D (3)	31.5 (3)	E (3)	35.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-17
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	71,300	9.00%	0.55	3,529	4	2	2,000	4,000	5%	0.93	E
	Lone Star Rd to Otay Mesa Rd	53,500	9.00%	0.55	2,648	4	2	2,000	4,000	5%	0.70	C
SR-905	I-5 to I-805	110,200	9.00%	0.55	5,455	6	3	2,000	6,000	15%	1.05	F
	I-805 to Otay Mesa Rd	163,600	9.00%	0.55	8,098	6	3	2,000	6,000	15%	1.55	F
	Otay Mesa Rd to Britannia Blvd	146,700	9.00%	0.55	7,262	6	3	2,000	6,000	15%	1.39	F
	Britannia Blvd to La Media Rd	132,100	9.00%	0.55	6,539	6	3	2,000	6,000	15%	1.25	F
	SR 125/ SR 11 to Siempre Viva Rd	74,000	9.00%	0.55	3,663	6	3	2,000	6,000	15%	0.70	C
	Siempre Viva Rd to International Border (2)	52,800	9.00%	0.55	2,614	6	3	2,000	6,000	15%	0.50	B
I-5	North of SR -905	163,900	9.00%	0.55	8,113	8	4	2,000	8,000	10%	1.12	F
	SR-905 to I-805	81,700	9.00%	0.55	4,044	8	4	2,000	8,000	1%	0.51	B
	I-805 to International Border (2)	145,800	9.00%	0.55	7,217	12	6	2,000	12,000	1%	0.61	B
I-805	North of SR -905	215,800	9.00%	0.55	10,682	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	127,800	9.00%	0.55	6,326	8	4	2,000	8,000	1%	0.80	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-18

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	37,400	0.94	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	29,000	0.78	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	17,000	0.46	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,000	0.16	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	11,000	0.30	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	18,000	0.53	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	35,000	0.58	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	41,000	0.68	C
	SR-125 to Sun Road Blvd	City	6 Lane Prime	60,000	17,300	0.29	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	11,000	0.19	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,000	0.24	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,000	0.50	B
	La Media Rd to SR - 905	City	4 Lane Major	40,000	17,000	0.43	B
	SR-905 to Paseo De Las Americas	City	4 Lane Major	40,000	4,000	0.10	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	10,000	0.27	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,000	0.22	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	6,000	0.16	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,000	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,000	0.30	A
	Otay Center Dr - SR 905	City	6 Lane Prime	60,000	10,000	0.17	A
	SR 905 - Paseo De Las Americas	City	6 Lane Prime	60,000	49,900	0.83	C
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	17,200	0.29	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,800	0.32	A
	Alta Rd to Airway Rd	County	Major Road	37,000	8,900	0.24	A
	Airway Rd to SR-11	County	Major Road	37,000	14,000	0.38	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	10,200	0.28	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-18

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,000	0.45	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	23,000	0.58	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	42,000	0.70	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	37,000	0.62	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	19,000	0.48	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,000	0.50	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	16,000	0.53	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to David Ridge Dr	City	4 Lane Collector	30,000	24,000	0.80	D
Sanyo Ave	Otay Mesa to Airway Rd	County/City	Collector	34,200	22,000	0.64	B
	Airway to Paseo De Las Americas	City	4 Lane Collector	30,000	12,000	0.40	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	25,200	0.44	E
	Otay Mesa Rd to SR-11	County	Major Road	37,000	41,000	1.11	F
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	13,700	0.37	B
	South of Siempre Viva Rd	County	Major Road	37,000	2,000	0.05	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	12,000	0.74	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,000	0.19	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	5,000	0.14	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-19
Horizon Year (2035)
Intersection Capacity Analysis
No Toll/Two Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.0	C	20.1
Lone Star Rd and SR-125 SB Ramps	B	12.3	B	18.2
Lone Star Rd and SR-125 NB Ramps	B	11.3	B	11.7
Lone Star Rd and Piper Ranch Rd	B	16.9	A	7.9
Lone Star Rd and Sunroad Blvd	A	7.0	B	17.0
Lone Star Rd and Zinser Rd	A	9.8	B	16.0
Lone Star Rd and Van Center Blvd	B	10.5	B	11.3
Lone Star Rd and Enrico Fermi Dr	B	14.7	B	10.2
Lone Star Rd and Alta Rd	C	21.2	C	28.0
Lone Star Rd and Otay Mesa Rd	A	8.9	A	9.8
Lone Star Rd and Siempre Viva Rd	B	10.5	B	13.0
Zinser Rd and Piper Ranch Rd	B	12.7	B	11.6
Zinser Rd and Sunroad Blvd	C	22.7	C	26.9
Otay Mesa Rd and Britannia Blvd	B	16.8	C	20.7
Otay Mesa Rd and La Media Rd	E	65.2	E	69.0
Otay Mesa Rd and Piper Ranch Rd	C	28.0	C	30.5
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.2	A	8.5
Otay Mesa Rd and SR-125 NB On Ramp	A	2.0	A	3.3
Otay Mesa Rd and Harvest Rd	B	19.3	B	18.3
Otay Mesa Rd and Sanyo Ave	B	19.2	B	19.3
Otay Mesa Rd and Van Center Blvd	A	7.8	A	6.6
Otay Mesa Rd and Enrico Fermi Dr	C	22.8	C	31.3
Otay Mesa Rd and Alta Rd	B	18.3	B	18.2
SR 905 WB Ramps and Britannia Blvd	A	8.0	B	13.2
SR 905 EB Ramps and Britannia Blvd	B	14.0	B	15.0
SR 905 WB Off Ramp and La Media Rd	B	16.4	B	16.3
SR 905 EB Ramps and La Media Rd	B	14.2	B	17.3
SR 11 WB Ramps and Enrico Fermi Dr	B	18.6	B	18.6
SR 11 EB Ramps and Enrico Fermi Dr	B	18.5	C	21.6
SR 11 WB On Ramp and Siempre Viva Rd	A	4.7	A	6.3
SR 11 EB Off Ramp and Siempre Viva Rd	A	8.4	A	9.3
Airway Rd and Britannia Blvd	C	23.4	C	21.4
Airway Rd and La Media Rd	D	39.4	D	41.2
Airway Rd and Sanyo Ave	C	24.9	C	22.9
Airway Rd and Paseo De Las Americas	A	9.5	B	12.4
Airway Rd and Enrico Fermi Dr	C	24.9	C	26.5
Airway Rd and Alta Rd	B	19.3	B	19.4
Siempre Viva Rd and Britannia Blvd	C	22.7	C	23.2
Siempre Viva Rd and La Media Rd	C	23.5	C	22.6
Siempre Viva Rd and Otay Center Dr	B	18.9	C	24.4
Siempre Viva Rd and SR-905 SB Ramps	A	7.6	A	7.3
Siempre Viva Rd and SR-905 NB Ramps	C	20.6	B	19.4
Siempre Viva Rd and Paseo De Las Americas	D	36.8	C	26.0
Siempre Viva Rd and Enrico Fermi Dr	C	21.6	C	23.8
Siempre Viva Rd and Alta Rd	C	21.8	B	16.0
Siempre Viva Rd and Airway Rd	C	22.1	C	20.1

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-20
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 Off Ramp to Alta Rd Off Ramp	Freeway	2281		2451		3		C	22.3	C	23.9
Alta Rd Off Ramp	Diverge	2281	1430	2451	1296	2	2	C (3)	22.0 (3)	C (3)	23.7 (3)
Alta Rd On Ramp	Merge	851	980	1155	1331	2	1	C (3)	22.3 (3)	C (3)	26.8 (3)
Alta Rd On Ramp to Siempre Viva Rd	Freeway	1831		2486		3		B	14.6	B	18.0
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1831	1613	2486	2288	2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	218		196		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1613		2290		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2709		2457		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	288		261		2		A	2.5	A	2.3
Siempre Viva Rd to Alta Rd Off Ramp	Freeway	2997		2718		3		C	20.2	C	19.9
Alta Rd Off Ramp	Diverge	2997	1198	2718	1089	2	2	C (3)	21.7 (3)	C (3)	21.4 (3)
Alta Rd On Ramp	Merge	1799	1531	1629	2079	2	1	D (3)	30.5 (3)	D (3)	34.4 (3)
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	3330		3708		3		C	20.7	C	23.6
SR-125 Off Ramp	Diverge	3330	753	3708	1023	2	1	D (3)	31.5 (3)	E (3)	35.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-21
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	72,800	9.00%	0.55	3,604	4	2	2,000	4,000	5%	0.95	E
	Lone Star Rd to Otay Mesa Rd	57,100	9.00%	0.55	2,826	4	2	2,000	4,000	5%	0.74	C
SR-905	I-5 to I-805	108,800	9.00%	0.55	5,386	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	162,700	9.00%	0.55	8,054	6	3	2,000	6,000	15%	1.54	F
	Otay Mesa Rd to Britannia Blvd	152,300	9.00%	0.55	7,539	6	3	2,000	6,000	15%	1.44	F
	Britannia Blvd to La Media Rd	129,500	9.00%	0.55	6,410	6	3	2,000	6,000	15%	1.23	F
	SR 125/ SR 11 to Siempre Viva Rd	73,600	9.00%	0.55	3,643	6	3	2,000	6,000	15%	0.70	C
	Siempre Viva Rd to International Border (2)	73,000	9.00%	0.55	3,614	6	3	2,000	6,000	15%	0.69	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	81,700	9.00%	0.55	4,044	8	4	2,000	8,000	1%	0.51	B
	I-805 to International Border (2)	145,800	9.00%	0.55	7,217	12	6	2,000	12,000	1%	0.61	B
I-805	North of SR -905	212,700	9.00%	0.55	10,529	8	4	2,000	8,000	10%	1.45	F
	SR-905 to I-5	127,700	9.00%	0.55	6,321	8	4	2,000	8,000	1%	0.80	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.

(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-22

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	38,000	0.95	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	31,000	0.84	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	15,000	0.41	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,000	0.16	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	20,000	0.58	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	36,000	0.60	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	44,000	0.73	C
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	17,000	0.28	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	12,000	0.21	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	12,000	0.32	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	4,000	0.11	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,000	0.50	B
	La Media Rd to SR 905	City	4 Lane Major	40,000	17,000	0.43	B
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	4,000	0.10	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	10,000	0.27	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,000	0.22	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	19,000	0.51	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,000	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,000	0.30	A
	Otay Center Dr to SR -905	City	6 Lane Prime	60,000	10,000	0.17	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	54,000	0.90	D
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	21,000	0.35	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,000	0.27	A
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	3,000	0.08	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	3,000	0.08	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-22

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,000	0.45	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	23,000	0.58	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	14,000	0.35	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	41,000	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	40,000	0.67	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	19,000	0.48	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,000	0.53	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	17,000	0.57	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	23,000	0.77	D
Sanyo Ave	SR 905 to Airway Rd	County/City	4 Lane Collector	30,000	21,000	0.70	D
	Airway Road to Paseo De Las Americas	City	4 Lane Collector	30,000	-	-	-
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	15,000	0.26	C
	Otay Mesa Rd to SR-11	County	Major Road	37,000	10,000	0.27	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	-	-	-
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	12,000	0.74	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	18,000	0.49	B
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	33,800	0.91	E
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	4,200	0.11	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-23
Horizon Year (2035)
Intersection Capacity Analysis
No Toll/One Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	23.6	C	25.9
Lone Star Rd and SR-125 SB Ramps	B	13.8	B	19.3
Lone Star Rd and SR-125 NB Ramps	B	11.2	B	11.9
Lone Star Rd and Piper Ranch Rd	B	19.3	A	9.8
Lone Star Rd and Sunroad Blvd	A	7.5	B	17.6
Lone Star Rd and Zinser Rd	B	11.3	A	9.9
Lone Star Rd and Van Center Blvd	B	10.5	B	11.7
Lone Star Rd and Enrico Fermi Dr	B	12.8	B	11.4
Lone Star Rd and Alta Rd	C	22.9	C	28.4
Lone Star Rd and Otay Mesa Rd	B	15.6	B	19.1
Lone Star Rd and Siempre Viva Rd	B	11.5	B	13.3
Zinser Rd and Piper Ranch Rd	B	13.0	B	14.8
Zinser Rd and Sunroad Blvd	C	25.0	C	32.0
Otay Mesa Rd and Britannia Blvd	B	17.3	C	20.2
Otay Mesa Rd and La Media Rd	E	77.8	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	27.3	C	30.4
Otay Mesa Rd and SR-125 SB Off Ramp	B	12.1	A	9.9
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	5.3
Otay Mesa Rd and Harvest Rd	C	20.8	B	19.7
Otay Mesa Rd and Sanyo Ave	B	19.4	C	23.8
Otay Mesa Rd and Van Center Blvd	A	8.2	A	9.5
Otay Mesa Rd and Enrico Fermi Dr	C	21.6	C	29.8
Otay Mesa Rd and Alta Rd	E	55.9	E	58.0
SR 905 WB Ramps and Britannia Blvd	A	7.9	B	12.5
SR 905 EB Ramps and Britannia Blvd	B	13.9	B	14.9
SR 905 WB Off Ramp and La Media Rd	B	14.7	B	12.6
SR 905 EB Ramps and La Media Rd	B	13.9	B	19.3
SR 11 WB Ramps and Alta Rd	C	20.0	C	31.4
SR 11 EB Ramps and Alta Rd	B	18.2	B	16.8
SR 11 WB On Ramp and Siempre Viva Rd	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	-	-	-	-
Airway Rd and Britannia Blvd	C	23.2	C	22.2
Airway Rd and La Media Rd	C	31.1	D	41.1
Airway Rd and Sanyo Ave	C	24.6	C	24.5
Airway Rd and Paseo De Las Americas	A	9.6	B	17.2
Airway Rd and Enrico Fermi Dr	C	23.9	C	29.0
Airway Rd and Alta Rd	C	29.9	C	27.3
Siempre Viva Rd and Britannia Blvd	C	27.2	C	25.6
Siempre Viva Rd and La Media Rd	C	23.3	C	23.4
Siempre Viva Rd and Otay Center Dr	C	21.0	C	22.3
Siempre Viva Rd and SR-905 SB Ramps	A	5.6	A	8.1
Siempre Viva Rd and SR-905 NB Ramps	C	22.5	C	21.5
Siempre Viva Rd and Paseo De Las Americas	C	33.9	C	28.3
Siempre Viva Rd and Enrico Fermi Dr	C	22.4	C	26.6
Siempre Viva Rd and Alta Rd	C	24.7	C	24.1
Siempre Viva Rd and Airway Rd	B	16.7	C	24.9

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-24
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp to Siempre Viva Rd	Freeway	1831		2486		2		B	17.9	C	24.3
South of Siempre Viva Rd (Commercial Only)	Freeway	218		196		2		A	2.2	A	2.0
South of Siempre Viva Rd (Auto's Only)	Freeway	1613		2288		2		B	15.8	C	22.4
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	2709		2457		2		D	26.5	C	24.0
South of Siempre Viva Rd (Commercial Only)	Freeway	288		261		2		A	2.9	A	2.7
Siempre Viva Rd to SR-125 Off Ramp	Freeway	2997		2718		2		D	29.3	D	26.6
SR-125 Off Ramp	Diverge	2301	696	1772	946	2	1	D	28.5	C	25.9

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 5-25
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	75,000	9.00%	0.55	3,713	4	2	2,000	4,000	5%	0.97	E
	Lone Star Rd to Otay Mesa Rd	61,600	9.00%	0.55	3,049	4	2	2,000	4,000	5%	0.80	D
SR-905	I-5 to I-805	110,000	9.00%	0.55	5,445	6	3	2,000	6,000	15%	1.04	F
	I-805 to Otay Mesa Rd	165,600	9.00%	0.55	8,197	6	3	2,000	6,000	15%	1.57	F
	Otay Mesa Rd to Britannia Blvd	142,800	9.00%	0.55	7,069	6	3	2,000	6,000	15%	1.35	F
	Britannia Blvd to La Media Rd	128,800	9.00%	0.55	6,376	6	3	2,000	6,000	15%	1.22	F
	SR 125/ SR 11 to Siempre Viva Rd	92,800	9.00%	0.55	4,594	6	3	2,000	6,000	15%	0.88	D
	Siempre Viva Rd to International Border (2)	73,000	9.00%	0.55	3,614	6	3	2,000	6,000	15%	0.69	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	81,600	9.00%	0.55	4,039	8	4	2,000	8,000	1%	0.51	B
	I-805 to International Border (2)	145,800	9.00%	0.55	7,217	12	6	2,000	12,000	1%	0.61	B
I-805	North of SR -905	214,400	9.00%	0.55	10,613	8	4	2,000	8,000	10%	1.46	F
	SR-905 to I-5	127,100	9.00%	0.55	6,291	8	4	2,000	8,000	1%	0.79	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-26

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	45,000	1.13	F
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	38,000	1.03	F
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	20,000	0.54	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	7,000	0.19	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	25,000	0.73	C
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	39,300	0.66	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	38,000	0.63	C
	SR-125 to Sun Road Blvd	City	6 Lane Prime	60,000	23,000	0.38	B
	Sun Road Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	19,000	0.33	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,000	0.22	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	2,000	0.05	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	22,000	0.55	C
	La Media Rd to SR 905	City	4 Lane Major	40,000	26,000	0.65	C
	SR 905 to Paseo De Las Americas	City	4 Lane Major	40,000	9,000	0.23	A
	Paseo de las Americas to Enrico Fermi Dr	County	Major Road	37,000	19,000	0.51	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,000	0.30	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	19,000	0.32	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	22,000	0.37	A
	Otay Center Dr to SR -905	City	6 Lane Prime	60,000	10,000	0.17	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	75,000	1.25	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	38,000	0.63	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	18,000	0.49	B
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	4,000	0.11	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	4,000	0.11	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-26

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - NO TOLL/NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Brittania Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	20,000	0.50	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	25,000	0.63	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	18,000	0.45	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	45,000	0.75	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	47,000	0.78	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	23,000	0.58	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	22,000	0.55	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	10,000	0.29	A
	Zinzer Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	19,000	0.63	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	6,000	0.18	A
	Zinser Rd to Otay Mesa Road	City	4 Lane Collector	30,000	24,000	0.80	D
Sanyo Ave	SR 905 to Airway Rd	County/City	4 Lane Collector	30,000	24,000	0.80	D
	Airway Road to Paseo De Las Americas	City	4 Lane Collector	30,000	10,000	0.33	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	9,000	0.16	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	20,000	0.54	B
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	8,000	0.22	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,400	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	12,000	0.74	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	8,000	0.22	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	9,000	0.24	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	2,000	0.05	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-27
Horizon Year (2035)
Intersection Capacity Analysis
No Toll/No Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	26.2	C	22.3
Lone Star Rd and SR-125 SB Ramps	B	15.8	C	26.8
Lone Star Rd and SR-125 NB Ramps	B	15.6	B	10.6
Lone Star Rd and Piper Ranch Rd	C	21.7	B	17.8
Lone Star Rd and Sunroad Blvd	B	14.4	C	32.9
Lone Star Rd and Zinser Rd	B	19.4	B	16.0
Lone Star Rd and Van Center Blvd	C	20.3	B	15.5
Lone Star Rd and Enrico Fermi Dr	B	16.1	B	13.9
Lone Star Rd and Alta Rd	C	21.4		27.7
Lone Star Rd and Otay Mesa Rd	B	10.0	B	11.0
Lone Star Rd and Siempre Viva Rd	B	11.8	B	13.8
Zinser Rd and Piper Ranch Rd	B	13.0	B	16.0
Zinser Rd and Sunroad Blvd	C	28.3	C	31.7
Otay Mesa Rd and Britannia Blvd	B	19.0	C	21.6
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	D	50.2	E	79.7
Otay Mesa Rd and SR-125 SB Off Ramp	B	15.9	D	39.9
Otay Mesa Rd and SR-125 NB On Ramp	A	5.1	B	16.8
Otay Mesa Rd and Harvest Rd	C	23.3	C	20.2
Otay Mesa Rd and Sanyo Ave	C	25.3	C	25.7
Otay Mesa Rd and Van Center Blvd	A	7.8	A	8.2
Otay Mesa Rd and Enrico Fermi Dr	C	26.2	C	30.5
Otay Mesa Rd and Alta Rd	C	21.6	C	25.9
SR 905 WB Ramps and Britannia Blvd	A	8.5	B	13.7
SR 905 EB Ramps and Britannia Blvd	B	14.5	B	15.4
SR 905 WB Off Ramp and La Media Rd	C	20.1	C	33.2
SR 905 EB Ramps and La Media Rd	B	17.8	C	22.6
SR 11 WB Ramps and Enrico Fermi Dr	-	-	-	-
SR 11 EB Ramps and Enrico Fermi Dr	-	-	-	-
SR 11 WB On Ramp and Siempre Viva Rd	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	-	-	-	-
Airway Rd and Britannia Blvd	C	28.0	C	24.6
Airway Rd and La Media Rd	D	44.7	D	47.8
Airway Rd and Sanyo Ave	C	26.5	C	24.5
Airway Rd and Paseo De Las Americas	B	17.4	B	17.4
Airway Rd and Enrico Fermi Dr	C	28.8	C	34.2
Airway Rd and Alta Rd	C	20.8	B	19.9
Siempre Viva Rd and Britannia Blvd	C	25.5	C	28.5
Siempre Viva Rd and La Media Rd	C	23.7	C	24.9
Siempre Viva Rd and Otay Center Dr	C	27.7	C	33.2
Siempre Viva Rd and SR-905 SB Ramps	A	8.9	B	11.8
Siempre Viva Rd and SR-905 NB Ramps	D	42.0	D	46.8
Siempre Viva Rd and Paseo De Las Americas	E	75.3	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	D	43.3	E	65.8
Siempre Viva Rd and Alta Rd	C	26.1	B	19.1
Siempre Viva Rd and Airway Rd	B	16.5	B	16.8

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-28
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	2102	703	2245	639	2	1	C(3)	26.8(3)	C(3)	27.5(3)
SR-125 On Ramp to Enrico Fermi Dr Off Ramp	Freeway	2805		2884		3		B	17.8	C	18.3
Enrico Fermi Dr Off Ramp	Diverge	2805	1346	2884	1224	2	2	B (3)	18.1 (3)	B (3)	18.9 (3)
Enrico Fermi Dr On Ramp	Merge	1459	834	1660	1133	2	1	C (3)	23.1 (3)	C (3)	27.5 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	2293		2793		3		B	15.2	C	18.5
Siempre Viva Rd Off Ramp	Diverge	2293	713	2793	648	2	2	B (3)	18.1 (3)	B (3)	18.9 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Freeway	1580		2145		2	2	B (3)	13.1 (3)	B (3)	18.0 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Auto's Only)	Freeway	1394		1978		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	2342		2124		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd On Ramp	Merge	2590	583	2349	792	3	1	C	20.7	C	21.2
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	3173		3141		3		C	20.2	C	19.9
Enrico Fermi Dr Off Ramp	Diverge	3173	1020	3141	927	2	2	C (3)	21.7 (3)	C (3)	21.4 (3)
Enrico Fermi Dr On Ramp	Merge	2153	1102	2214	1496	2	1	D (3)	30.5 (3)	D (3)	34.4 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	3255		3710		3		C	20.7	C	23.6
SR-125 Off Ramp	Diverge	3255	575	3710	781	2	1	D (3)	31.5 (3)	E (3)	35.9 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-29
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	73,000	9.00%	0.55	3,614	4	2	2,000	4,000	5%	0.95	E
	Lone Star Rd to Otay Mesa Rd	55,400	9.00%	0.55	2,742	4	2	2,000	4,000	5%	0.72	C
SR-905	I-5 to I-805	108,800	9.00%	0.55	5,386	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	162,300	9.00%	0.55	8,034	6	3	2,000	6,000	15%	1.54	F
	Otay Mesa Rd to Britannia Blvd	152,000	9.00%	0.55	7,524	6	3	2,000	6,000	15%	1.44	F
	Britannia Blvd to La Media Rd	127,600	9.00%	0.55	6,316	6	3	2,000	6,000	15%	1.21	F
	SR 125/ SR 11 to Siempre Viva Rd	72,000	9.00%	0.55	3,564	6	3	2,000	6,000	15%	0.68	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	216,900	9.00%	0.55	10,737	8	4	2,000	8,000	10%	1.48	F
	SR-905 to I-5	132,100	9.00%	0.55	6,539	8	4	2,000	8,000	1%	0.83	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-30
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR / TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	21,600	0.54	C
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	38,000	0.95	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	29,800	0.81	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	17,800	0.48	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,700	0.18	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	5,100	0.14	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	19,000	0.56	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	36,900	0.62	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	41,300	0.69	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	16,900	0.42	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	11,100	0.19	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,900	0.27	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	18,600	0.47	B
	La Media Rd to Sanyo Ave	City	4 Lane Major	40,000	17,000	0.43	B
	Sanyo Ave to Paseo De Las Americas	City	4 Lane Major	40,000	9,900	0.25	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	8,600	0.23	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,300	0.25	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,700	0.15	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,100	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,200	0.30	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	17,800	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	52,400	0.87	D
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	19,300	0.32	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,500	0.31	A
	Alta Rd to Airway Rd	County	Major Road	37,000	10,700	0.29	A
	Airway Rd to SR-11	County	Major Road	37,000	10,400	0.28	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	5,800	0.16	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-30
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR / TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,200	0.46	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,500	0.56	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	15,900	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	41,000	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	35,900	0.60	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	19,300	0.32	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,600	0.52	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,200	0.21	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	16,500	0.55	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	24,400	0.81	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	17,900	0.45	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	12,300	0.31	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	24,400	0.66	B
	Otay Mesa Rd to SR-11	County	Major Road	37,000	42,300	1.14	F
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	16,800	0.45	B
	South of Siempre Viva Rd	County	Major Road	37,000	1,900	0.05	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	8,900	0.24	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	7,000	0.19	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,300	0.04	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-31
Horizon Year (2035)
Intersection Capacity Analysis
SR-125 Connector/Two Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.0	C	20.5
Lone Star Rd and SR-125 SB Ramps	B	13.0	B	19.0
Lone Star Rd and SR-125 NB Ramps	B	11.6	B	10.9
Lone Star Rd and Piper Ranch Rd	B	16.6	A	9.9
Lone Star Rd and Sun Road Blvd	A	7.8	B	19.0
Lone Star Rd and Zinser Rd	B	12.2	B	14.6
Lone Star Rd and Vann Center Blvd	A	9.4	B	12.2
Lone Star Rd and Enrico Fermi Dr	B	17.0	B	10.9
Lone Star Rd and Alta Rd	C	21.1	C	28.3
Otay Mesa Rd and Lone Star Rd	A	8.2	B	11.1
Siempre Viva Rd and Lone Star Rd	B	12.7	B	13.1
Zinser Rd and Piper Ranch Rd	B	12.9	B	14.5
Zinser Rd and Sun Road Blvd	C	23.7	C	26.5
Otay Mesa Rd and Britannia Blvd	C	20.5	C	20.1
Otay Mesa Rd and La Media Rd	E	71.9	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	30.4	C	26.9
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.0	A	8.8
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	3.3
Otay Mesa Rd and Harvest Rd	B	19.7	B	19.2
Otay Mesa Rd and Sanyo Ave	C	21.9	C	24.4
Otay Mesa Rd and Vann Center Blvd	A	7.9	A	9.0
Otay Mesa Rd and Enrico Fermi Rd	C	24.3	E	77.5
Otay Mesa Rd and Alta Rd	C	21.6	C	21.2
SR 905 WB Ramps and Britannia Blvd	A	7.1	B	12.7
SR 905 EB Ramps and Britannia Blvd	B	11.3	B	15.2
SR 905 WB Off Ramp and La Media Rd	B	10.5	B	12.5
SR 905 EB Ramps and La Media Rd	B	13.5	B	17.6
SR 11 WB Ramps and Enrico Fermi Dr	C	21.1	C	27.1
SR 11 EB Ramps and Enrico Fermi Dr	C	25.4	C	23.1
SR 11 WB On Ramp and Siempre Viva Rd	A	4.1	A	5.7
SR 11 EB Off Ramp and Siempre Viva Rd	A	5.6	A	9.4
Airway Rd and Britannia Blvd	C	34.4	C	22.1
Airway Rd and La Media Rd	D	38.3	D	40.3
Airway Rd and Sanyo Ave	C	25.1	C	23.2
Airway Rd and Paseo De Las Americas	B	15.2	B	15.5
Airway Rd and Enrico Fermi Dr	C	24.0	C	31.0
Airway Rd and Alta Rd	C	23.0	B	19.3
Siempre Viva Rd and Britannia Blvd	C	24.9	C	23.1
Siempre Viva Rd and La Media Rd	C	22.3	C	25.4
Siempre Viva Rd and Otay Center Dr	C	26.6	C	30.9
Siempre Viva Rd and SR-905 SB Ramps	A	7.1	A	9.2
Siempre Viva Rd and SR-905 NB Ramps	C	25.2	C	26.6
Siempre Viva Rd and Paseo De Las Americas	D	40.0	D	47.9
Siempre Viva Rd and Enrico Fermi Dr	C	26.2	C	26.7
Siempre Viva Rd and Alta Rd	C	28.3	C	18.3
Siempre Viva Rd and Airway Rd	C	21.9	B	21.8

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-31a
Horizon Year (2035) Intersection Capacity Analysis
SR-125 Connector/Two Interchange Design Variation
ILV Methodology

Intersection	AM Peak Hour		PM Peak Hour	
	SUM OF ILV	Capacity Result	SUM OF ILV	Capacity Result
Enrico Fermi Rd and SR - 11 WB Ramp	980	UNDER	1197	UNDER
Enrico Fermi Rd and SR - 11 EB Ramp	1129	UNDER	1114	UNDER
Sempre Viva Rd and SR - 11 NB Ramp	589	UNDER	792	UNDER
Sempre Viva Rd and SR - 11 SB Ramp	472	UNDER	506	UNDER

Notes:

SUM OF ILV < 1200 : Intersection operates under capacity.
SUM OF ILV > 1200 and < 1500 : Intersection operates near capacity.
SUM OF ILV > 1500 : Intersection operates over capacity.

Table 5-32
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	1461	663	1637	603	2	1	C	20.8	C	21.8
SR-125 On Ramp to Alta Rd Off Ramp	Freeway	2124		2240		2		C	20.8	C	21.9
Alta Rd Off Ramp	Diverge	2124	1435	2240	1305	2	1	C	20.5	C	21.6
Alta Rd On Ramp	Merge (3)	689	891	935	1210	2	1	B	16.4	C	21.5
Alta Road On Ramp to Passenger Car Off Ramp	Weave (4)	1580		2145		3		B	13.7	C	20.2
Passenger Car Off Ramp	Diverge (3)	1580	1394	2145	1978	2	2	A	6.2	B	11.7
South of Alta Rd (Passenger Cars only)	Freeway	1394		1978		2		B	12.7	B	17.9
South of Alta Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
Westbound											
South of Alta Rd (Passenger Cars Only)	Freeway	2342		2124		2		C	21.3	C	19.3
South of Alta Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Passenger Car On Ramp	Merge (3)	248	2342	225	2124	2	1	C	25.0	C	22.9
Passenger Car On Ramp to Alta Rd Off Ramp	Weave (5)	2590		2349		3		C	26.1	C	23.0
Alta Rd Off Ramp	Diverge (3)	2590	1089	2349	990	2	1	C	25.0	C	22.7
Alta Rd On Ramp	Merge	1501	1175	1359	1595	2	1	C	25.4	C	27.6
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	2676		2954		2		D	26.1	D	28.9
SR-125 Off Ramp	Diverge	2676	543	2954	737	2	1	C	25.8	D	28.6

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Ramp capacity analysis is shown for information only, since this is technically part of a weaving section
(4) For weaving volumes, see Figure 5 -15e. The ramp to ramp movement was assumed to be 802 in the AM peak hour and 1089 in the PM peak hour. The weaving distance is 1400ft
(5) For weaving volumes, see Figure 5 -15e. The ramp to ramp movement was assumed to be 980 in the AM peak hour and 891 in the PM peak hour. The weaving distance is 2200ft

Table 5-33
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	73,000	9.00%	0.55	3,614	4	2	2,000	4,000	5%	0.95	E
	Lone Star Rd to Otay Mesa Rd	55,400	9.00%	0.55	2,742	4	2	2,000	4,000	5%	0.72	C
SR-905	I-5 to I-805	108,100	9.00%	0.55	5,351	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	160,300	9.00%	0.55	7,935	6	3	2,000	6,000	15%	1.52	F
	Otay Mesa Rd to Britannia Blvd	149,000	9.00%	0.55	7,376	6	3	2,000	6,000	15%	1.41	F
	Britannia Blvd to La Media Rd	123,800	9.00%	0.55	6,128	6	3	2,000	6,000	15%	1.17	F
	SR 125/ SR 11 to Siempre Viva Rd	78,800	9.00%	0.55	3,901	6	3	2,000	6,000	15%	0.75	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	215,900	9.00%	0.55	10,687	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	131,900	9.00%	0.55	6,529	8	4	2,000	8,000	1%	0.82	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-34
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR / ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	21,900	0.55	C
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	38,900	0.97	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	31,700	0.86	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	15,700	0.42	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	5,900	0.16	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	3,800	0.10	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	20,700	0.61	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	37,900	0.63	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	35,600	0.59	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	19,600	0.49	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	11,800	0.21	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	9,200	0.25	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	4,000	0.11	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,400	0.51	B
	La Media Rd to Sanyo Ave	City	4 Lane Major	40,000	18,100	0.45	B
	Sanyo Ave to Paseo De Las Americas	City	4 Lane Major	40,000	11,200	0.28	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	9,700	0.26	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,600	0.21	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	16,600	0.45	B
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,200	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,500	0.31	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	17,800	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	58,500	0.98	E
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	21,600	0.36	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,500	0.31	A
	Alta Rd to Airway Rd	County	Major Road	37,000	13,500	0.36	A
	Airway Rd to SR-11	County	Major Road	37,000	3,600	0.10	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	3,600	0.10	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-34
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR / ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,600	0.47	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,700	0.57	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,700	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	38,300	0.64	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	19,600	0.33	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,700	0.52	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,300	0.21	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	18,200	0.61	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,400	0.22	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	23,600	0.79	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	22,400	0.56	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	12,500	0.31	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	19,000	0.51	B
	Otay Mesa Rd to SR-11	County	Major Road	37,000	12,700	0.34	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	5,300	0.14	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,100	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,900	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	13,700	0.37	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	33,600	0.91	E
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	10,300	0.28	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-35
Horizon Year (2035)
Intersection Capacity Analysis
SR-125 Connector/One Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.1	C	20.7
Lone Star Rd and SR-125 SB Ramps	B	12.9	B	19.4
Lone Star Rd and SR-125 NB Ramps	B	12.2	B	11.6
Lone Star Rd and Piper Ranch Rd	B	17.1	C	25.8
Lone Star Rd and Sun Road Blvd	A	9.2	B	19.8
Lone Star Rd and Zinser Rd	B	19.0	D	53.2
Lone Star Rd and Vann Center Blvd	B	11.0	B	16.6
Lone Star Rd and Enrico Fermi Dr	B	13.4	B	12.9
Lone Star Rd and Alta Rd	C	20.7	C	25.6
Otay Mesa Rd and Lone Star Rd	B	17.1	C	22.1
Lone Star Rd and Siempre Viva Rd	B	13.4	B	18.3
Zinser Rd and Piper Ranch Rd	B	15.7	B	13.2
Zinser Rd and Sun Road Blvd	C	25.7	C	34.6
Otay Mesa Rd and Britannia Blvd	C	21.6	C	20.5
Otay Mesa Rd and La Media Rd	E	65.5	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	30.8	C	27.4
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.5	A	8.7
Otay Mesa Rd and SR-125 NB On Ramp	A	2.2	A	4.3
Otay Mesa Rd and Harvest Rd	C	20.7	B	18.1
Otay Mesa Rd and Sanyo Ave	B	18.7	C	25.9
Otay Mesa Rd and Vann Center Blvd	A	7.5	A	7.7
Otay Mesa Rd and Enrico Fermi Rd	C	20.7	C	31.7
Otay Mesa Rd and Alta Rd	D	43.4	D	39.7
SR 905 WB Ramps and Britannia Blvd	A	7.2	B	12.5
SR 905 EB Ramps and Britannia Blvd	B	11.9	B	14.8
SR 905 WB Off Ramp and La Media Rd	B	10.2	B	11.9
SR 905 EB Ramps and La Media Rd	B	12.9	B	17.0
SR 11 WB Ramps and Alta Rd	B	19.9	C	22.6
SR 11 EB Ramps and Alta Rd	B	16.7	C	22.5
Airway Rd and Britannia Blvd	D	37.6	C	26.0
Airway Rd and La Media Rd	D	39.8	D	41.7
Airway Rd and Sanyo Ave	C	25.5	C	25.7
Airway Rd and Paseo De Las Americas	B	15.4	B	17.5
Airway Rd and Enrico Fermi Dr	C	23.6	C	22.8
Airway Rd and Alta Rd	C	26.4	C	24.5
Siempre Viva Rd and Britannia Blvd	C	24.9	C	25.1
Siempre Viva Rd and La Media Rd	C	22.3	C	29.3
Siempre Viva Rd and Otay Center Dr	C	27.5	C	29.7
Siempre Viva Rd and SR-905 SB Ramps	A	8.8	B	11.3
Siempre Viva Rd and SR-905 NB Ramps	C	29.7	C	34.6
Siempre Viva Rd and Paseo De Las Americas	D	36.2	D	38.0
Siempre Viva Rd and Enrico Fermi Dr	C	27.8	C	28.2
Siempre Viva Rd and Alta Rd	C	30.0	C	28.5
Siempre Viva Rd and Airway Rd	B	18.8	C	21.0

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-35a
Horizon Year (2015) Intersection Capacity Analysis
SR-125 Connector/One Interchange Design Variation
ILV Methodology

Intersection	AM Peak Hour		PM Peak Hour	
	SUM OF ILV	Capacity Result	SUM OF ILV	Capacity Result
Alta Rd and SR - 11 WB Ramp	986	UNDER	1181	UNDER
Alta Rd and SR - 11 EB Ramp	1033	UNDER	995	UNDER

Notes:

SUM OF ILV < 1200 : Intersection operates under capacity.
SUM OF ILV > 1200 and < 1500 : Intersection operates near capacity.
SUM OF ILV > 1500 : Intersection operates over capacity.

Table 5-36
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	728	852	1371	774	2	1	B	15.9	C	20.9
SR-125 On Ramp to Siempre Viva Rd	Freeway	1580		2145		2		B	15.4	C	21.0
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Auto's Only)	Freeway	1394		1978		2		B	13.6	C	19.3
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	2342		2124		2		C	22.9	C	20.8
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd to SR-125 Off Ramp	Freeway	2590		2349		2		C	25.3	C	23.0
SR-125 Off Ramp	Diverge	2590	696	2349	946	2	1	D	31.0	D	31.0

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 5-37
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	76,200	9.00%	0.55	3,772	4	2	2,000	4,000	5%	0.99	E
	Lone Star Rd to Otay Mesa Rd	63,600	9.00%	0.55	3,148	4	2	2,000	4,000	5%	0.83	D
SR-905	I-5 to I-805	109,500	9.00%	0.55	5,420	6	3	2,000	6,000	15%	1.04	F
	I-805 to Otay Mesa Rd	163,400	9.00%	0.55	8,088	6	3	2,000	6,000	15%	1.55	F
	Otay Mesa Rd to Britannia Blvd	151,800	9.00%	0.55	7,514	6	3	2,000	6,000	15%	1.44	F
	Britannia Blvd to La Media Rd	125,200	9.00%	0.55	6,197	6	3	2,000	6,000	15%	1.19	F
	SR 125/ SR 11 to Siempre Viva Rd	94,000	9.00%	0.55	4,653	6	3	2,000	6,000	15%	0.89	D
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	217,300	9.00%	0.55	10,756	8	4	2,000	8,000	10%	1.48	F
	SR-905 to I-5	131,400	9.00%	0.55	6,504	8	4	2,000	8,000	1%	0.82	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-38

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	46,300	1.16	F
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	38,900	1.05	F
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	20,400	0.55	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,500	0.18	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,100	0.11	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	25,400	0.74	C
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	41,300	0.69	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	52,500	0.88	D
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	20,000	0.33	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	18,300	0.32	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,700	0.21	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	2,300	0.06	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	22,100	0.55	C
	La Media Rd to Harvest Rd	City	4 Lane Major	40,000	24,700	0.62	C
	Harvest Rd to Paseo De Las Americas	City	4 Lane Major	40,000	8,600	0.22	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	18,700	0.51	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,000	0.30	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,600	0.15	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	18,500	0.31	A
	La Media Rd to Harvest Rd	City	6 Lane Prime	60,000	21,300	0.36	A
	Harvest Rd to SR-905	City	6 Lane Prime	60,000	18,800	0.31	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	78,600	1.31	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	38,300	0.64	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	18,200	0.49	B
	Alta Rd to Airway Rd	County	Major Road	37,000	1,000	0.03	A
	Airway Rd to SR-11	County	Major Road	37,000	4,100	0.11	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	4,100	0.11	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-38

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-125 CONNECTOR/ NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	19,400	0.49	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	24,100	0.60	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,900	0.42	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	41,400	0.69	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	41,300	0.69	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,800	0.57	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,800	0.55	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	11,200	0.33	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	18,500	0.62	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	6,300	0.18	A
	Zinser Rd to David Ridge Dr	City	4 Lane Collector	30,000	24,900	0.83	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	24,400	0.81	D
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	10,500	0.35	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	8,400	0.15	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	20,200	0.55	B
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	7,300	0.20	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,300	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,600	0.21	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	8,400	0.23	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,900	0.05	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-39
Horizon Year (2035)
Intersection Capacity Analysis
SR-125 Connector/No Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	25.0	C	21.1
Lone Star Rd and SR-125 SB Ramps	B	13	B	15.7
Lone Star Rd and SR-125 NB Ramps	B	12.8	B	11.5
Lone Star Rd and Piper Ranch Rd	C	20.3	B	10.7
Lone Star Rd and Sunroad Blvd	B	13.3	B	19.6
Lone Star Rd and Zinser Rd	B	19.3	B	18
Lone Star Rd and Van Center Blvd	B	11.7	B	10.9
Lone Star Rd and Enrico Fermi Dr	B	12.0	B	11.2
Lone Star Rd and Alta Rd	C	23.9	C	27.1
Lone Star Rd and Otay Mesa Rd	A	9.6	B	15.0
Lone Star Rd and Siempre Viva Rd	B	13.6	B	19.9
Zinser Rd and Piper Ranch Rd	B	14.8	B	16.3
Zinser Rd and Sunroad Blvd	C	25.9	C	32.3
Otay Mesa Rd and Britannia Blvd	B	19.4	C	23.2
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	29.8	C	25.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.4	B	13.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.3	A	4.8
Otay Mesa Rd and Harvest Rd	B	18.9	B	19.4
Otay Mesa Rd and Sanyo Ave	C	22.2	C	22.1
Otay Mesa Rd and Van Center Blvd	A	8.4	A	7.8
Otay Mesa Rd and Enrico Fermi Dr	C	24.3	C	30.8
Otay Mesa Rd and Alta Rd	C	23.3	C	24.3
SR 905 Britannia Blvd WB Ramps	A	9.1	B	12.5
SR 905 Britannia Blvd EB Ramps	B	13.1	B	15.5
SR 905 La Media Rd WB Off Ramp	C	18.5	D	40.3
SR 905 La Media Rd EB Ramps	B	16.6	C	27.0
Airway Rd and Britannia Blvd	C	28.1	C	23.6
Airway Rd and La Media Rd	D	42.8	D	43.4
Airway Rd and Sanyo Ave	C	29.1	C	25.4
Airway Rd and Paseo De Las Americas	B	17.2	B	17.9
Airway Rd and Enrico Fermi Dr	C	28.9	C	33.1
Airway Rd and Alta Rd	C	22.2	C	20.2
Siempre Viva Rd and Britannia Blvd	C	30.0	C	28.0
Siempre Viva Rd and La Media Rd	C	23.1	C	28.4
Siempre Viva Rd and Otay Center Dr	C	32.1	C	30.6
Siempre Viva Rd and SR-905 SB Ramps	B	12.9	C	20.3
Siempre Viva Rd and SR-905 NB Ramps	E	62.3	F	>80.0
Siempre Viva Rd and Paseo De Las Americas	E	64.6	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	D	42.9	E	58.0
Siempre Viva Rd and Alta Rd	C	26.4	C	21.1
Siempre Viva Rd and Airway Rd	B	14.4	B	15.8

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-40
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATION

		Peak Hour Traffic (veh/hr)									
SR 11		AM		PM		Number of Lanes		AM Peak Hour		PM Peak Hour	
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	2607	841	2725	765	2	1	D	32.4	D (3)	32.8
SR-125 On Ramp to Enrico Fermi Dr	Freeway	3448		3490		3		C	21.9	C	22.2
Enrico Fermi Dr Off Ramp	Diverge	3448	1405	3490	1278	2	2	C (3)	24.4 (3)	C (3)	24.8 (3)
Enrico Fermi Dr On Ramp	Merge	2043	769	2212	1045	2	1	C (3)	26.8 (3)	D (3)	31.9 (3)
Enrico Fermi Dr On Ramp to Siempre Viva Rd Off Ramp	Freeway	2812		3257		3		C	18.7	C	21.6
Siempre Viva Rd Off Ramp	Diverge	2812	1248	3257	1134	2	1	B (3)	18.2 (3)	C (3)	22.5 (3)
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1564		2123		2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1377		1955		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2322		2106		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd On Ramp	Merge	2570	1020	2331	1386	3	1	C	24.3	C	26.1
Siempre Viva Rd to Enrico Fermi Dr Off Ramp	Freeway	3590		3717		3		C	22.8	C	23.6
Enrico Fermi Dr Off Ramp	Diverge	3590	941	3717	855	2	2	C (3)	25.8 (3)	C (3)	27.0 (3)
Enrico Fermi Dr On Ramp	Merge	2649	1151	2862	1562	2	1	E (3)	35.3 (3)	F (3)	40.7 (3)
Enerico Fermi Dr On Ramp to SR-125 Off Ramp	Freeway	3800		4424		3		C	24.1	D (3)	28.1
SR-125 Off Ramp	Diverge	3800	688	4424	935	2	1	E (3)	36.8 (3)	F (3)	42.9 (3)
SR-905 Off Ramp	Diverge	3112	230	3489	317	2	1	D (3)	30.1 (3)	D (3)	33.8 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-41
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	75,100	9.00%	0.55	3,717	4	2	2,000	4,000	5%	0.98	E
	Lone Star Rd to Otay Mesa Rd	57,200	9.00%	0.55	2,831	4	2	2,000	4,000	5%	0.74	C
SR-905	I-5 to I-805	108,900	9.00%	0.55	5,391	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	163,400	9.00%	0.55	8,088	6	3	2,000	6,000	15%	1.55	F
	Otay Mesa Rd to Britannia Blvd	153,400	9.00%	0.55	7,593	6	3	2,000	6,000	15%	1.46	F
	Britannia Blvd to La Media Rd	130,300	9.00%	0.55	6,450	6	3	2,000	6,000	15%	1.24	F
	SR 125/ SR 11 to Siempre Viva Rd	72,600	9.00%	0.55	3,594	6	3	2,000	6,000	15%	0.69	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	215,800	9.00%	0.55	10,682	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	132,100	9.00%	0.55	6,539	8	4	2,000	8,000	1%	0.83	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-42
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / TWO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	22,000	0.55	C
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	36,000	0.90	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	30,000	0.81	D
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	17,000	0.46	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,000	0.16	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	12,000	0.32	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	18,000	0.53	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	36,000	0.60	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	41,000	0.68	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	13,000	0.33	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	9,000	0.16	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,000	0.22	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,000	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	18,000	0.45	B
	La Media Rd to Sanyo Ave	City	4 Lane Major	40,000	16,000	0.40	B
	Sanyo Ave to Paseo De Las Americas	City	4 Lane Major	40,000	9,000	0.23	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	5,000	0.14	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,000	0.19	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	5,000	0.14	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,000	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	19,000	0.32	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	23,000	0.38	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	43,000	0.72	C
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	11,000	0.18	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,000	0.19	A
	Alta Rd to Airway Rd	County	Major Road	37,000	5,000	0.14	A
	Airway Rd to SR-11	County	Major Road	37,000	10,000	0.27	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	13,000	0.35	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-42
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / TWO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,000	0.45	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	23,000	0.58	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,000	0.67	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	35,000	0.58	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	20,000	0.33	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,000	0.53	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	16,000	0.53	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	24,000	0.80	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	20,000	0.50	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	10,000	0.25	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	25,000	0.68	C
	Otay Mesa Rd to SR-11	County	Major Road	37,000	42,000	1.14	F
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	14,000	0.38	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,000	0.05	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	12,000	0.74	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,000	0.19	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	4,000	0.11	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,000	0.03	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-43
Horizon Year (2035)
Intersection Capacity Analysis
Full Interchange/Two Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	23.3	B	15.6
Lone Star Rd and SR-125 SB Ramps	B	11.9	C	21.2
Lone Star Rd and SR-125 NB Ramps	B	11.3	B	13.6
Lone Star Rd and Piper Ranch Rd	B	18.0	A	10.0
Lone Star Rd and Sunroad Blvd	B	15.0	B	16.6
Lone Star Rd and Zinser Rd	B	11.2	B	15.0
Lone Star Rd and Van Center Blvd	A	8.1	B	12.3
Lone Star Rd and Enrico Fermi Dr	B	16.0	B	12.4
Lone Star Rd and Alta Rd	C	20.6	C	28.0
Lone Star Rd and Otay Mesa Rd	A	9.3	A	9.9
Lone Star Rd and Siempre Viva Rd	B	14.3	B	14.3
Zinser Rd and Piper Ranch Rd	B	16.4	B	18.4
Zinser Rd and Sunroad Blvd	C	25.0	C	25.9
Otay Mesa Rd and Britannia Blvd	B	17.0	B	13.8
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	D	41.4	C	27.9
Otay Mesa Rd and SR-125 SB Off Ramp	A	8.3	A	8.3
Otay Mesa Rd and SR-125 NB On Ramp	A	2.9	A	5.1
Otay Mesa Rd and Harvest Rd	B	15.6	B	17.9
Otay Mesa Rd and Sanyo Ave	C	23.9	C	22.5
Otay Mesa Rd and Van Center Blvd	B	10.4	B	10.8
Otay Mesa Rd and Enrico Fermi Dr	C	25.2	D	45.0
Otay Mesa Rd and Alta Rd	C	22.3	B	15.0
SR 905 WB Ramps and Britannia Blvd	A	9.8	B	14.2
SR 905 EB Ramps and Britannia Blvd	B	13.5	B	18.4
SR 905 WB Off Ramp and La Media Rd	C	27.9	E	55.9
SR 905 EB Ramps and La Media Rd	B	13.6	B	18.2
SR 11 WB Ramps and Enrico Fermi Dr	A	8.8	B	11.9
SR 11 EB Ramps and Enrico Fermi Dr	B	15.6	B	16.6
SR 11 WB On Ramp and Siempre Viva Rd	B	10.8	B	12.6
SR 11 EB Off Ramp and Siempre Viva Rd	A	7.2	A	8.8
Airway Rd and Britannia Blvd	C	31.2	C	26.7
Airway Rd and La Media Rd	D	40.3	D	39.5
Airway Rd and Sanyo Ave	C	29.2	C	22.9
Airway Rd and Paseo De Las Americas	A	8.5	B	10.4
Airway Rd and Enrico Fermi Dr	D	40.6	D	43.2
Airway Rd and Alta Rd	B	17.4	B	19.5
Siempre Viva Rd and Britannia Blvd	C	21.7	C	26.0
Siempre Viva Rd and La Media Rd	C	20.5	C	28.3
Siempre Viva Rd and Otay Center Dr	C	31.7	C	32.8
Siempre Viva Rd and SR-905 SB Ramps	A	5.7	A	8.0
Siempre Viva Rd and SR-905 NB Ramps	C	23.8	C	27.4
Siempre Viva Rd and Paseo De Las Americas	C	22.6	C	23.6
Siempre Viva Rd and Enrico Fermi Dr	C	29.0	C	30.3
Siempre Viva Rd and Alta Rd	C	20.5	B	17.9
Siempre Viva Rd and Airway Rd	B	19.2	B	18.5

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-44
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	1914	831	2074	756	2	2	B	19.3	B	19.5
SR-125 On Ramp to Alta Rd	Freeway	2745		2830		3		D	26.8	D	27.7
Alta Rd Off Ramp	Diverge	2745	1999	2830	1818	2	2	B (3)	17.5 (3)	B (3)	18.3 (3)
Alta Rd On Ramp	Merge	746	818	1012	1111	2	1	B (3)	16.3 (3)	C (3)	21.3 (3)
Alta Rd On Ramp to Siempre Viva Rd	Freeway	1564		2123		3		B	14.6	B	18.0
Siempre Viva Rd and Passenger Car Off Ramp	Freeway	1564		2123		2	2	A (3)	6.2 (3)	B (3)	11.7 (3)
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
South of Siempre Viva Rd (Autos Only)	Freeway	1377		1955		2		B	12.7	B	17.9
Westbound											
South of Siempre Viva Rd (Autos Only)	Freeway	2322		2106		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd to Alta Rd Off Ramp	Freeway	2570		2331		3		C	20.2	C	19.9
Alta Rd Off Ramp	Diverge	2570	1000	2331	909	2	2	B (3)	15.8 (3)	B (3)	13.5 (3)
Atla Rd On Ramp	Merge	1570	1637	1422	2222	2	1	D (3)	29.8 (3)	D (3)	33.4 (3)
Alta Rd On Ramp to SR-125 Off Ramp	Freeway	3207		3644		3		C	20.4	C	23.1
SR-125 Off Ramp	Diverge	3207	681	3644	924	2	1	D (3)	31.0 (3)	E (3)	35.3 (3)
SR-905 Off Ramp	Diverge	2526	158	2720	218	2	1	C (3)	24.4 (3)	C (3)	26.3 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 5-45
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE/ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	75,000	9.00%	0.55	3,713	4	2	2,000	4,000	5%	0.97	E
	Lone Star Rd to Otay Mesa Rd	59,200	9.00%	0.55	2,930	4	2	2,000	4,000	5%	0.77	C
SR-905	I-5 to I-805	108,400	9.00%	0.55	5,366	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	161,600	9.00%	0.55	7,999	6	3	2,000	6,000	15%	1.53	F
	Otay Mesa Rd to Britannia Blvd	150,800	9.00%	0.55	7,465	6	3	2,000	6,000	15%	1.43	F
	Britannia Blvd to La Media Rd	126,900	9.00%	0.55	6,282	6	3	2,000	6,000	15%	1.20	F
	SR 125/ SR 11 to Siempre Viva Rd	75,700	9.00%	0.55	3,747	6	3	2,000	6,000	15%	0.72	C
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	215,100	9.00%	0.55	10,647	8	4	2,000	8,000	10%	1.46	F
	SR-905 to I-5	132,000	9.00%	0.55	6,534	8	4	2,000	8,000	5%	0.86	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-46
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / ONE INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	La Media to SR-125	City	4 Lane Major	40,000	38,000	0.95	E
	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	31,000	0.78	D
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	19,000	0.51	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	14,000	0.38	A
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	7,000	0.19	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
Zinser Rd	Piper Ranch Rd to Lone Star Rd	County	Collector	34,200	20,000	0.58	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	37,000	0.62	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	35,000	0.58	C
	SR-125 to Van Center Blvd	City	4 Lane Major	40,000	24,000	0.60	A
	Van Center Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	10,000	0.18	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,000	0.27	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	5,000	0.14	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	20,000	0.50	B
	La Media Rd to Sanyo Ave	City	4 Lane Major	40,000	17,000	0.43	B
	Sanyo Ave to Paseo De Las Americas	City	4 Lane Major	40,000	11,000	0.28	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	6,000	0.16	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	5,000	0.14	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	20,000	0.54	B
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,000	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	19,000	0.32	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	18,000	0.30	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	50,000	0.83	D
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	14,000	0.23	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,000	0.22	A
	Alta Rd to Airway Rd	County	Major Road	37,000	14,000	0.38	A
	Airway Rd to SR-11	County	Major Road	37,000	3,000	0.08	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	3,000	0.08	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-46
HORIZON YEAR (2035)
ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / ONE INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,000	0.45	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	23,000	0.58	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,000	0.67	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	38,000	0.63	C
	SR-905 to Airway Rd	City	6 Lane Prime	60,000	20,000	0.33	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,000	0.53	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Major Road	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	18,000	0.60	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	23,000	0.77	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Major	40,000	22,000	0.55	B
	Airway Rd to Paseo De Las Americas	City	4 Lane Major	40,000	12,000	0.30	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	12,600	0.34	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	10,000	0.27	A
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	4,000	0.11	A
	South of Siempre Viva Rd	County	Major Road	37,000	2,000	0.05	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	12,000	0.74	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	16,000	0.43	B
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	40,000	1.08	F
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	8,000	0.22	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.
ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-47
Horizon Year (2035)
Intersection Capacity Analysis
Full Interchange/One Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	D	47.3	C	32.9
Lone Star Rd and SR-125 SB Ramps	B	11.4	B	15.4
Lone Star Rd and SR-125 NB Ramps	B	11.7	B	10.4
Lone Star Rd and Piper Ranch Rd	B	15.7	A	8.0
Lone Star Rd and Sunroad Blvd	A	6.7	B	15.3
Lone Star Rd and Zinser Rd	B	14.2	B	13.9
Lone Star Rd and Van Center Blvd	A	9.7	A	7.6
Lone Star Rd and Enrico Fermi Dr	B	12.3	A	9.0
Lone Star Rd and Alta Rd	C	23.0	C	30.2
Lone Star Rd and Otay Mesa Rd	B	14.5	B	17.2
Lone Star Rd and Siempre Viva Rd	B	11.8	B	12.6
Zinser Rd and Piper Ranch Rd	B	15.2	B	12.1
Zinser Rd and Sunroad Blvd	C	23.5	D	35.7
Otay Mesa Rd and Britannia Blvd	B	17.2	B	19.4
Otay Mesa Rd and La Media Rd	E	63.1	E	78.9
Otay Mesa Rd and Piper Ranch Rd	C	34.8	C	24.8
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.9	B	11.6
Otay Mesa Rd and SR-125 NB On Ramp	A	2.4	A	5.1
Otay Mesa Rd and Harvest Rd	C	21.7	C	22.3
Otay Mesa Rd and Sanyo Ave	B	19.4	C	29.5
Otay Mesa Rd and Van Center Blvd	A	7.5	B	10.9
Otay Mesa Rd and Enrico Fermi Dr	C	21.5	C	24.2
Otay Mesa Rd and Alta Rd	E	61.1	D	42.3
SR 905 WB Ramps and Britannia Blvd	A	9.3	B	11.6
SR 905 EB Ramps and Britannia Blvd	B	12.8	B	16.8
SR 905 WB Off Ramp and La Media Rd	B	13.6	B	12.5
SR 905 EB Ramps and La Media Rd	B	16.6	B	16.9
SR 11 WB Ramps and Enrico Fermi Dr	C	20.2	D	36.0
SR 11 EB Ramps and Enrico Fermi Dr	C	24.8	C	22.3
SR 11 WB On Ramp and Siempre Viva Rd	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	-	-	-	-
Airway Rd and Britannia Blvd	C	27.8	C	24.0
Airway Rd and La Media Rd	C	33.8	D	41.3
Airway Rd and Sanyo Ave	C	26.6	C	22.1
Airway Rd and Paseo De Las Americas	A	6.8	A	8.7
Airway Rd and Enrico Fermi Dr	B	19.9	C	20.2
Airway Rd and Alta Rd	C	31.2	C	26.7
Siempre Viva Rd and Britannia Blvd	C	28.2	C	24.4
Siempre Viva Rd and La Media Rd	C	22.6	C	22.1
Siempre Viva Rd and Otay Center Dr	C	30.3	C	30.9
Siempre Viva Rd and SR-905 SB Ramps	A	5.7	A	9.3
Siempre Viva Rd and SR-905 NB Ramps	B	17.7	C	22.6
Siempre Viva Rd and Paseo De Las Americas	C	23.2	C	26.7
Siempre Viva Rd and Enrico Fermi Dr	C	21.1	C	26.4
Siempre Viva Rd and Alta Rd	B	19.2	B	19.5
Siempre Viva Rd and Airway Rd	C	21.8	C	28.1

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

Table 5-48
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - FULL INTERCHANGE/NO INTERCHANGE DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	812	752	1439	684	2	1	B	15.8	C	20.8
SR-125 On Ramp to Siempre Viva Rd	Freeway	1564		2123		2		B	15.3	C	20.7
South of Siempre Viva Rd (Auto's Only)	Freeway	1377		1955		2		B	13.5	C	19.1
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	A	1.7
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	2322		2106		2		C	22.7	C	20.6
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd to SR-125 Off Ramp	Freeway	2570		2331		2		C	25.1	C	22.8
SR-125 Off Ramp	Diverge	2570	615	2331	836	2	1	D	30.2	D	29.9

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane

Table 5-49
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	2035 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2035 V/C (1)	2035 LOS
SR-125	North of Lone Star Rd	75,800	9.00%	0.55	3,752	4	2	2,000	4,000	5%	0.98	E
	Lone Star Rd to Otay Mesa Rd	61,800	9.00%	0.55	3,059	4	2	2,000	4,000	5%	0.80	D
SR-905	I-5 to I-805	109,000	9.00%	0.55	5,396	6	3	2,000	6,000	15%	1.03	F
	I-805 to Otay Mesa Rd	161,900	9.00%	0.55	8,014	6	3	2,000	6,000	15%	1.54	F
	Otay Mesa Rd to Britannia Blvd	149,700	9.00%	0.55	7,410	6	3	2,000	6,000	15%	1.42	F
	Britannia Blvd to La Media Rd	122,600	9.00%	0.55	6,069	6	3	2,000	6,000	15%	1.16	F
	SR 125/ SR 11 to Siempre Viva Rd	96,600	9.00%	0.55	4,782	6	3	2,000	6,000	15%	0.92	D
	Siempre Viva Rd to International Border (2)	74,400	9.00%	0.55	3,683	6	3	2,000	6,000	15%	0.71	C
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,200	9.00%	0.55	4,118	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	216,400	9.00%	0.55	10,712	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	131,200	9.00%	0.55	6,494	8	4	2,000	8,000	1%	0.82	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-50

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / NO INTERCHANGE DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	45,400	1.14	F
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	38,000	1.03	F
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	20,100	0.54	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	6,400	0.17	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	4,200	0.11	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	25,100	0.73	C
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	39,900	0.67	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	53,200	0.89	D
	SR-125 to Sunroad Blvd	City	6 Lane Prime	60,000	18,600	0.31	A
	Sunroad Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	16,000	0.28	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	7,600	0.21	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	2,400	0.06	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	22,200	0.56	C
	La Media Rd to SR 905	City	4 Lane Major	40,000	24,100	0.60	C
	SR - 905 to Paseo De Las Americas	City	4 Lane Major	40,000	8,300	0.21	A
	Paseo De Las Americas to Enrico Fermi Dr	County	Major Road	37,000	18,100	0.49	B
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	10,700	0.29	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	4,700	0.13	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	18,700	0.31	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	20,800	0.35	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	9,700	0.16	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	79,700	1.33	F
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	38,900	0.65	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	18,500	0.50	B
	Alta Rd to Airway Rd	County	Major Road	37,000	7,800	0.21	A
	Airway Rd to SR-11	County	Major Road	37,000	4,200	0.11	A
	SR-11 to Lone Star Rd	County	Major Road	37,000	4,200	0.11	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 5-50

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - FULL INTERCHANGE / NO INTERCHANGE DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Britannia Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	19,300	0.48	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	24,000	0.60	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	17,000	0.43	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,800	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	42,400	0.71	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	21,700	0.54	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	21,400	0.54	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	10,500	0.31	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	19,100	0.64	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,000	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	25,100	0.84	E
Sanyo Ave	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	24,600	0.82	D
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	8,000	0.27	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	8,500	0.15	A
	Otay Mesa Rd to SR-11	County	Major Road	37,000	18,100	0.49	B
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	20,300	0.55	B
	South of Siempre Viva Rd	County	Major Road	37,000	2,300	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,800	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,700	0.21	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	8,700	0.24	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	1,800	0.05	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 5-51
Horizon Year (2035)
Intersection Capacity Analysis
Full Interchange/No Interchange Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	32.5	D	40.2
Lone Star Rd and SR-125 SB Ramps	B	12.7	B	12.9
Lone Star Rd and SR-125 NB Ramps	C	21.2	B	14.3
Lone Star Rd and Piper Ranch Rd	B	19.6	B	13.2
Lone Star Rd and Sunroad Blvd	B	13.8	B	23
Lone Star Rd and Zinser Rd	B	16.2	B	15.6
Lone Star Rd and Van Center Blvd	B	11.6	B	11.0
Lone Star Rd and Enrico Fermi Dr	B	13.0	B	8.9
Lone Star Rd and Alta Rd	C	21.1	C	25.6
Lone Star Rd and Otay Mesa Rd	B	13.6	B	14.6
Lone Star Rd and Siempre Viva Rd	B	11.4	B	10.2
Zinser Rd and Piper Ranch Rd	B	13.4	B	12.6
Zinser Rd and Sunroad Blvd	C	25.8	C	27.0
Otay Mesa Rd and Britannia Blvd	B	19.4	C	22.7
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	29.7	C	27.7
Otay Mesa Rd and SR-125 SB Off Ramp	A	9.3	A	9.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.4	A	4.9
Otay Mesa Rd and Harvest Rd	C	21.1	C	23.8
Otay Mesa Rd and Sanyo Ave	C	20.3	B	18.5
Otay Mesa Rd and Van Center Blvd	A	6.7	A	6.6
Otay Mesa Rd and Enrico Fermi Dr	C	24.8	C	25.4
Otay Mesa Rd and Alta Rd	C	23.5	C	24.2
SR 905 Britannia Blvd WB Ramps	A	9.2	B	12.9
SR 905 Britannia Blvd EB Ramps	B	12.8	B	15.0
SR 905 La Media Rd WB Off Ramp	B	17.9	C	25.5
SR 905 La Media Rd EB Ramps	B	14.6	B	18.1
Airway Rd and Britannia Blvd	C	26.9	C	23.1
Airway Rd and La Media Rd	D	39.3	D	41.5
Airway Rd and Sanyo Ave	C	28.4	C	25.3
Airway Rd and Paseo De Las Americas	B	16.9	B	15.6
Airway Rd and Enrico Fermi Dr	C	27.9	D	48.9
Airway Rd and Alta Rd	C	21.1	B	18.5
Siempre Viva Rd and Britannia Blvd	C	29.0	C	24.1
Siempre Viva Rd and La Media Rd	C	23.5	C	25.2
Siempre Viva Rd and Otay Center Dr	C	31.9	C	30.0
Siempre Viva Rd and SR-905 SB Ramps	B	12.6	B	16.0
Siempre Viva Rd and SR-905 NB Ramps	D	50.2	E	59.5
Siempre Viva Rd and Paseo De Las Americas	E	74.0	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	D	43.6	D	54.7
Siempre Viva Rd and Alta Rd	C	31.6	C	26.4
Siempre Viva Rd and Airway Rd	B	19.1	C	32.3

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

TABLE 5-52
HORIZON YEAR (2035)
SR-11 CAPACITY ANALYSIS - SR 11/SIEMPRE VIVA ROAD DESIGN VARIATION

SR 11		Peak Hour Traffic (veh/hr)				Number of Lanes		AM Peak Hour		PM Peak Hour	
		AM		PM							
Location	Facility	Freeway	Ramp	Freeway	Ramp	Freeway	Ramp	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound											
SR-125 On Ramp	Merge	1851	644	1944	585	2	1	C (3)	24.1 (3)	C (3)	24.4 (3)
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	Freeway	2495		2529		3		B	15.8	B	16.1
Enrico Fermi Rd Off Ramp	Diverge	2495	1257	2529	1143	2	2	A (3)	8.4 (3)	B (3)	15.4 (3)
Enrico Fermi Rd On Ramp	Merge	1238	348	1386	473	2	1	B (3)	16.8 (3)	B (3)	19.3 (3)
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	Freeway	1586		1859		3		A	10.5	B	12.3
Siempre Viva Rd and Passenger Car Off Ramp	Diverge	1586	1400	1859	1692	2	2	A (3)	6.2 (3)	A (3)	8.9 (3)
Siempre Vivia Rd On Ramp	Merge	932	648	1265	880	2	1	B	16.6	C	21.7
South of Siempre Viva Rd (Commercial Only)	Freeway	186		167		2		A	1.9	B	1.7
South of Siempre Viva Rd (Auto's Only)	Freeway	1394		1978		2		B	12.7	A	17.9
Westbound											
South of Siempre Viva Rd (Auto's Only)	Freeway	2342		2124		2		C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	Freeway	248		225		2		A	2.5	A	2.3
Siempre Viva Rd Off Ramp	Diverge	2580	792	2340	720	3	1	B	18.7	B	17.1
Siempre Viva Rd On Ramp	Merge	1798	534	1629	726	3	1	B	16.2	B	16.9
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	Freeway	2322		2346		3		B	14.7	B	14.9
Enrico Fermi Rd Off Ramp	Diverge	2322	426	2346	387	2	2	B (3)	13.4 (3)	B (3)	13.6 (3)
Enrico Fermi Rd On Ramp	Merge	1896	1029	1959	1397	2	1	C (3)	27.7 (3)	D (3)	31.3 (3)
Enerico Fermi Rd On Ramp to SR-125 Off Ramp	Freeway	2925		3356		3		C	18.6	C	21.3
SR-125 Off Ramp	Diverge	2925	526	3356	715	2	1	D (3)	28.3 (3)	D (3)	32.5 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the preposed design concept. The results shown are a conservative estimate of expected traffic operations.

TABLE 5-53
HORIZON YEAR (2035)
FREEWAY SEGMENT CAPACITY ANALYSIS - SR-11 / SIEMPRE VIVA ROADDESIGN VARIATION

ROUTE	LIMITS	2015 ADT	PEAK HOUR %	DIR. SPLIT	PEAK HOUR VOLUME (VEH/HR)	NO. OF LANES (TOTAL)	NO. OF LANES (PER DIRECTION)	CAPACITY PER LANE (VEH/HR)	TOTAL CAPACITY (VEH/HR)	% TRUCKS	2015 V/C (1)	2015 LOS
SR-125	North of Lone Star Rd	72,000	9.00%	0.55	3,564	4	2	2,000	4,000	5%	0.94	E
	Lone Star Rd to Otay Mesa Rd	53,800	9.00%	0.55	2,663	4	2	2,000	4,000	5%	0.70	C
SR-905	I-5 to I-805	108,000	9.00%	0.55	5,346	6	3	2,000	6,000	15%	1.02	F
	I-805 to Otay Mesa Rd	160,600	9.00%	0.55	7,950	6	3	2,000	6,000	15%	1.52	F
	Otay Mesa Rd to Britannia Blvd	140,600	9.00%	0.55	6,960	6	3	2,000	6,000	15%	1.33	F
	Britannia Blvd to La Media Rd	124,800	9.00%	0.55	6,178	6	3	2,000	6,000	15%	1.18	F
	SR 125/ SR 11 to Sempre Viva Road	61,200	9.00%	0.55	3,029	6	3	2,000	6,000	15%	0.58	B
	Siempre Viva Rd to International Border (2)	45,600	9.00%	0.55	2,257	6	3	2,000	6,000	15%	0.43	B
I-5	North of SR -905	162,900	9.00%	0.55	8,064	8	4	2,000	8,000	10%	1.11	F
	SR-905 to I-805	83,600	9.00%	0.55	4,138	8	4	2,000	8,000	1%	0.52	B
	I-805 to International Border (2)	151,600	9.00%	0.55	7,504	12	6	2,000	12,000	1%	0.63	C
I-805	North of SR -905	216,000	9.00%	0.55	10,692	8	4	2,000	8,000	10%	1.47	F
	SR-905 to I-5	132,100	9.00%	0.55	6,539	8	4	2,000	8,000	5%	0.86	D

(1) Volume to capacity calculation assumes each truck is equivalent to two passenger cars.
(2) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
DIR. SPLIT = Directional Split
VEH/HR = Vehicles Per Hour
V/C = Volume to Capacity Ratio
LOS = Level of Service

TABLE 5-54

HORIZON YEAR (2035)

ROAOWAY SEGMENT CAPACITY ANALYSIS - SR-11/SEMPRE VIVA ROAD DESIGN VARIATION

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Lone Star Rd	SR-125 to Sunroad Blvd	City	4 Lane Major	40,000	37,900	0.95	E
	Sunroad Blvd to Enrico Fermi Dr	County	Major Road	37,000	28,600	0.77	C
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	16,700	0.45	B
	Alta Rd to Otay Mesa Rd	County	Major Road	37,000	9,200	0.25	A
	Otay Mesa Rd to Siempre Viva Rd	County	Major Road	37,000	11,700	0.32	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	County	Collector	34,200	19,100	0.56	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	36,900	0.62	C
	La Media Rd to SR-125	City	8 Lane Major (3)	60,000	41,300	0.69	C
	SR-125 to Sun Road Blvd	City	6 Lane Prime	60,000	16,700	0.28	A
	Sun Road Blvd to Enrico Fermi Dr	County	Prime Arterial	57,000	10,800	0.19	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	8,100	0.22	A
	Alta Rd to Lone Star Rd	County	Major Road	37,000	1,100	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	City	4 Lane Major	40,000	19,800	0.50	B
	La Media Rd to SR 905	City	4 Lane Major	40,000	17,300	0.43	B
	SR - 905 to Paseo de las Americas	City	4 Lane Major	40,000	4,800	0.12	A
	Paseo de las Americas to Enrico Fermi Dr	County	Major Road	37,000	7,400	0.20	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	6,800	0.18	A
	Alta Rd to Siempre Viva Rd	County	Major Road	37,000	6,300	0.17	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	City	6 Lane Prime	60,000	16,000	0.27	A
	La Media Rd to Otay Center Dr	City	6 Lane Prime	60,000	18,200	0.30	A
	Otay Center Dr to SR-905	City	6 Lane Prime	60,000	10,300	0.17	A
	SR-905 to Paseo De Las Americas	City	6 Lane Prime	60,000	51,400	0.86	D
	Paseo De Las Americas to Enrico Fermi Dr	City	6 Lane Prime	60,000	18,200	0.30	A
	Enrico Fermi Dr to Alta Rd	County	Major Road	37,000	11,100	0.30	A
	Alta Rd to Airway Rd	County	Major Road	37,000	8,700	0.24	A
	Airway Rd to SR-11	County	Major Road	37,000	19,200	0.52	B
	SR-11 to Lone Star Rd	County	Major Road	37,000	12,500	0.34	A

(1) County = San Diego County
City = City of San Diego

(2) Maximum capacity at level of service E

(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

TABLE 5-54 (CONT.)

HORIZON YEAR (2035)

ROADWAY SEGMENT CAPACITY ANALYSIS - SR-11/SEMPRE VIVA ROAD DESIGN VARIATION continued

ROUTE	LIMITS	JURISDICTION (1)	CLASSIFICATION	TYPICAL MAX ADT (2)	2035 ADT	2035 V/C	2035 LOS
Brittania Blvd	Otay Mesa Rd to SR-905	City	4 Lane Major	40,000	18,400	0.46	B
	SR-905 to Airway Rd	City	4 Lane Major	40,000	22,500	0.56	C
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	16,000	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	City	6 Lane Prime	60,000	40,900	0.68	C
	Otay Mesa Rd to SR-905	City	6 Lane Prime	60,000	35,900	0.60	C
	SR-905 to Airway Rd	City	4 Lane Major	40,000	19,300	0.48	B
	Airway Rd to Siempre Viva Rd	City	4 Lane Major	40,000	20,600	0.52	B
Piper Ranch Rd	Lone Star Rd to Zinser Rd	County	Collector	34,200	7,500	0.22	A
	Zinzer Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	16,400	0.55	C
	Otay Mesa Rd to Airway Rd	City	4 Lane Collector	30,000	14,500	0.48	C
Sunroad Blvd	Lone Star Rd to Zinser Rd	County	Collector	34,200	6,800	0.20	A
	Zinser Rd to Otay Mesa Rd	City	4 Lane Collector	30,000	24,600	0.82	D
Sanyo Road	Otay Mesa Rd to SR 905	City	4 Lane Collector	30,000	15,800	0.53	B
	SR 905 - Airway	City	4 Lane Collector	30,000	15,800	0.53	C
	Airway Rd to Paseo De Las Americas	City	4 Lane Collector	30,000	12,200	0.41	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	County	6 Lane Prime	57,000	21,200	0.37	D
	Otay Mesa Rd to SR-11	County	Major Road	37,000	32,500	0.88	D
	SR-11 to Siempre Viva Rd	County	Major Road	37,000	17,300	0.47	B
	South of Siempre Viva Rd	County	Major Road	37,000	2,100	0.06	A
Alta Rd	North of Lone Star Rd	County	Rural Collector	16,200	11,900	0.73	E
	Lone Star Rd to Otay Mesa Rd	County	Major Road	37,000	7,900	0.21	A
	Otay Mesa Rd to Airway Rd	County	Major Road	37,000	6,100	0.16	A
	Airway Rd to Siempre Viva Rd	County	Major Road	37,000	400	0.01	A

(1) County = San Diego County
City = City of San Diego
(2) Maximum capacity at level of service E
(3) Capacity for 8 Lane Major roadway assumed to similar to 6 Lane Prime roadway.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

TABLE 5-55
Horizon Year (2035)
Intersection Capacity Analysis
SR-11/Siempre Viva Road Design Variation

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	22.8	C	24.1
Lone Star Rd and SR-125 SB Ramps	B	14.1	B	12.2
Lone Star Rd and SR-125 NB Ramps	B	11.9	A	7.6
Lone Star Rd and Piper Ranch Rd	C	21.1	A	9.6
Lone Star Rd and Sun Road Blvd	A	6.4	B	18.3
Lone Star Rd and Zinser Rd	B	16.1	B	14.4
Lone Star Rd and Vann Center Blvd	B	11.5	B	13.5
Lone Star Rd and Enrico Fermi Dr	B	14.6	A	7.2
Lone Star Rd and Alta Rd	C	21.7	C	27.5
Otay Mesa Rd and Lone Star Rd	A	7.6	A	9.6
Siempre Viva Rd and Lone Star Rd	A	9.9	B	13.2
Zinser Rd and Piper Ranch Rd	B	15.0	B	12.0
Zinser Rd and Sun Road Blvd	C	22.9	C	28.0
Otay Mesa Rd and Britannia Blvd	B	17.6	C	22.6
Otay Mesa Rd and La Media Rd	E	65.5	E	71.9
Otay Mesa Rd and Piper Ranch Rd	C	33.5	C	27.5
Otay Mesa Rd and SR-125 SB Off Ramp	B	11.6	B	12.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.2	A	2.7
Otay Mesa Rd and Harvest Rd	B	18.6	B	17.6
Otay Mesa Rd and Sanyo Ave	B	17.4	B	19.0
Otay Mesa Rd and Vann Center Blvd	A	8.3	A	6.1
Otay Mesa Rd and Enrico Fermi Rd	B	17.8	C	25.5
Otay Mesa Rd and Alta Rd	C	20.5	C	20.8
SR 905 WB Ramps and Britannia Blvd	A	7.4	B	11.2
SR 905 EB Ramps and Britannia Blvd	B	13.7	B	15.1
SR 905 WB Off Ramp and La Media Rd	B	14.7	B	14.4
SR 905 EB Ramps and La Media Rd	B	12.5	B	18.8
SR 11 WB Ramps and Enrico Fermi Dr	B	18.2	B	16.3
SR 11 EB Ramps and Enrico Fermi Dr	B	13.4	B	16.4
SR 11 WB Ramps and Siempre Viva Rd	C	24.9	C	20.7
SR 11 EB Ramps and Siempre Viva Rd	C	23.3	C	28.3
Airway Rd and Britannia Blvd	C	26.4	C	23.4
Airway Rd and La Media Rd	C	32.1	D	41.2
Airway Rd and Sanyo Ave	C	27.2	C	24.7
Airway Rd and Paseo De Las Americas	B	10.9	B	10.7
Airway Rd and Enrico Fermi Dr	C	27.3	D	37.0
Airway Rd and Alta Rd	C	21.1	B	18.6
Siempre Viva Rd and Britannia Blvd	C	24.9	C	24.4
Siempre Viva Rd and La Media Rd	C	20.9	C	21.2
Siempre Viva Rd and Otay Center Dr	C	25.3	C	27.7
Siempre Viva Rd and SR-905 SB Ramps	A	5.2	A	7.1
Siempre Viva Rd and SR-905 NB Ramps	C	23.3	B	19.6
Siempre Viva Rd and Paseo De Las Americas	C	31.2	C	31.5
Siempre Viva Rd and Enrico Fermi Dr	C	24.1	C	27.6
Siempre Viva Rd and Alta Rd	C	20.6	B	15.8
Siempre Viva Rd and Airway Rd	C	21.3	C	24.4

Notes:

All intersections will be signalized for all 2035 Conditions

">80.0" – Exceeds 80 seconds

6.0 PEDESTRIAN FORECASTS AT THE OTAY MESA EAST PORT OF ENTRY

The SR-11/Otay Mesa East LPOE project includes the SR-11 freeway/tollway as well as the construction of the new Otay Mesa East port of entry. The SR-11 portion of the project is expected to provide typical pedestrian facilities, including sidewalks and pedestrian signals at the ramp terminal intersections. No specific forecasts of pedestrian activity will be prepared for this portion of the project because the typical pedestrian facilities are expected to accommodate pedestrian demand.

The Otay Mesa East LPOE portion of the project presents a special situation with regard to the following issues:

- How many pedestrians can be expected to cross the Otay Mesa East LPOE in the design year of 2035?
- How will these pedestrians gain access to local destinations in East Otay Mesa and to transportation facilities?

It should be noted that the processing of pedestrians within the LPOE is also of interest, but that issue will be addressed in other studies.

HISTORICAL PEDESTRIAN COUNT INFORMATION

Information on pedestrian crossings at U.S. borders is available from the U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics website located at www.transtats.bts.gov/bordercrossing.apsx.

Table 6-1 shows annual northbound pedestrian border crossings for the years 1998 through 2007. The data show large year-to-year variations and a general upward trend in pedestrian activity. It is recommended that the year 2005 be used as the base year for the preparation of future pedestrian forecasts for the following reasons:

- Use of data from recent years 2007 through 2009 raises questions about the current state of the economy and the possibility that travel would be unusually low during this time.
- The year 2005 falls in the middle of a decade and compares favorably with the 2015 opening day and 2035 horizon year scenarios that are used in the SR-11/Otay Mesa East LPOE traffic analyses.

Table 6-1
Northbound Annual Pedestrian Crossings at San Ysidro and Otay Mesa 1998-2007

Year	San Ysidro	Otay Mesa
1998	6,909,382	619,158
1999	7,558,174	684,047
2000	7,542,450	648,756
2001	11,435,946	1,002,971
2002	7,903,483	1,684,117
2003	8,302,110	1,467,171
2004	9,457,600	1,519,627
2005	8,156,350	1,496,196
2006	7,811,614	1,385,134
2007	7,756,569	1,410,927

- The year 2005 was the latest year of data used in the 2006 SANDAG financial feasibility study for SR-11 and the Otay Mesa East LPOE that was used as a source of information for the traffic analysis.

Table 6-2 shows monthly variations in northbound pedestrian crossings at San Ysidro and Otay Mesa. These data show large month-to-month variations. Although not shown, review of data from other years indicate that there are relatively few consistent patterns regarding individual months that have high or low levels of pedestrian activity compared to other months.

PEDESTRIAN FORECASTS

For the purposes of this analysis, it was considered important to prepare daily forecasts of total pedestrians crossing the border at Otay Mesa East in 2035, the horizon year for the SR-11/Otay Mesa East LPOE project. Other studies may have a need to determine directional or hourly distributions of pedestrian forecasts.

The first question to be addressed in preparing a daily forecast is how to accommodate the day-to-day and month-to-month variations in pedestrian activity. Use of the peak day of the year is considered to be conservative, while use of the average day is considered to understate the need for pedestrian facilities. In order to resolve this issue, it is recommended that the average day of the peak month be used as the design level of pedestrian activity. This value is considered to represent a compromise between the peak time period that would be overly conservative and the average day that would be considered to be too low for design purposes.

Using the guideline described above and assuming that northbound and southbound crossings are equal in a given day, the following 2005 base-year two-way daily pedestrian crossings can be calculated:

- San Ysidro: 58,393 total crossings per day (based on average day in the peak month of August 2005)

- Otay Mesa: 11,128 total crossings per day (based on average day in the peak month of April 2005)

Forecasts of future pedestrian border crossings require some indicator of the level of activity that will occur in 2035 compared to the base year of 2005. The most reliable indicator of activity at the border crossings is considered to be the San Diego Association of Governments (SANDAG) regional transportation model. The model forecasts vehicle traffic at San Ysidro, Otay Mesa, and Otay Mesa east. If it is assumed that vehicle activity and pedestrian activity are related, the model's traffic forecasts can be used in determining future pedestrian forecasts. In this case, the 2030 traffic forecasts from the model have been increased by 1% per year to estimate 2035 conditions, the same growth factor that

Table 6-2
2005 Northbound Monthly Pedestrian Crossings at San Ysidro and Otay Mesa

Month	San Ysidro	Otay Mesa
Jan	681,584	106,213
Feb	624,360	100,733
Mar	794,103	129,932
Apr	714,578	166,920
May	714,369	138,925
Jun	715,639	128,049
Jul	856,407	139,445
Aug	905,086	126,007
Sep	507,389	106,099
Oct	525,165	119,902
Nov	530,055	110,478
Dec	587,615	123,493

was used for traffic.

Table 6-3 shows proposed pedestrian forecasts for all three LPOEs. A total of 14,100 total two-way pedestrian crossings are forecast at Otay Mesa East using the following methodology:

- For the base year of 2005, the ratio of pedestrian crossings per vehicle crossing was calculated. San Ysidro has a ratio of 0.55 pedestrian crossings per vehicle crossing, while Otay Mesa has a ratio of 0.31 pedestrian crossings per vehicle crossing. This reflects development patterns and transportation facilities at San Ysidro that are more conducive to pedestrian activity.

- For the future year of 2035, San Ysidro and Otay Mesa were assumed to have the same ratio of pedestrian crossings to vehicle crossings. Based on the transportation model's forecast of vehicle crossings, pedestrian crossings can be directly calculated.

- For Otay Mesa East, it was assumed that the ratio of pedestrian crossings to vehicle crossings would be 0.31, the same as the current ratio at the Otay Mesa LPOE. It is not known exactly how the area surrounding the proposed LPOE will be developed or redeveloped. However, it seems likely that development patterns will be similar to the Otay Mesa LPOE area and unlikely that the Otay Mesa East area would be as pedestrian-friendly as San Ysidro, which has the San Diego trolley station on the U.S. side of the border and downtown Tijuana and tourist destinations nearby in Mexico.

It should be noted that the pedestrian forecast of 14,100 pedestrians per day means that, in 2035, the proposed Otay Mesa East LPOE would be accommodating 27% more pedestrians than the level that the existing Otay Mesa LPOE is accommodating today.

Table 6-3
Daily Two-Way Border Crossing Vehicle and Pedestrian Forecasts

	2005			2035		
Port of Entry	Pedestrians	Vehicles	Pedestrian Crossings / Vehicle Crossing	Pedestrians	Vehicles	Pedestrian Crossings / Vehicle Crossing
San Ysidro	58,400 [1]	106,000 [2]	0.55	83,400 [3]	151,600 [4]	0.55
Otay Mesa	11,100 [1]	36,000 [2]	0.31	23,100 [3]	74,400 [4]	0.31
Otay Mesa East	N/A	N/A	N/A	14,100	45,600 [4]	0.31

1. U.S. Bureau of Transportation Statistics Data (www.transtats.bts.gov/bordercrossing.apsx). Based on average day in the peak month.
2. Caltrans Website (www.caltrans.gov/hq/traffops/saferesr/trafdata/2005all.htm).
3. Calculated based on ratio of pedestrian crossings to vehicle crossings.
4. See Table 2-2.

7.0 PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

This chapter provides information on pedestrian, transit, and bicycle facilities at the proposed Otay Mesa East LPOE.

PEDESTRIAN AND BICYCLE FACILITIES

Pedestrians crossing the international border at Otay Mesa East will travel to and from other destinations in the U.S. via walking, transit, taxis, or private automobiles. Siempre Viva Road is expected to be the closest location to the LPOE on the local street system. The level of pedestrian facilities to be provided has not been determined. Possibilities include an off-street drop-off area near the SR-11/Siempre Viva Road interchange or a designated area of curbside along Siempre Viva Road posted as a pedestrian loading zone. In either case, it is assumed that pedestrian walkways would be provided from the LPOE to Siempre Viva Road and that sidewalks would be provided along Siempre Viva Road to convey pedestrians to local destinations.

This report assumes that bicycles will be treated as pedestrians for the purpose of the border crossing process and that bicycle facilities will be provided on local roadways per current San Diego County standards.

TRANSIT FACILITIES

The SR-11/Otay Mesa East LPOE project includes the SR-11 freeway/tollway as well as the construction of the new Otay Mesa East port of entry. The SR-11 portion of the project is expected to provide for transit operations along the freeway mainline and interchanges in mixed-flow traffic. No separate transit facilities are expected to be needed because the SR-11 facilities are expected to operate at desirable levels of service with minimal delays.

The Otay Mesa East LPOE portion of the project presents a special situation with regard to the following transit issues:

- What type of transit service can be expected to be provided to the Otay Mesa East LPOE?
- What type of transit facilities can be expected to be provided to the Otay Mesa East LPOE?

Existing Transit Service at the International Border

The following transit service is currently provided at the San Ysidro and Otay Mesa LPOE.

San Ysidro

San Diego Trolley, Blue Line
MTS Bus Route 929
MTS Bus Route 932

Otay Mesa

MTS Bus Route 905

Future Transit Service at the Otay Mesa East LPOE

Future transit service at the Otay Mesa East LPOE is expected to consist of the following components:

- South Bay Bus Rapid Transit Line: This BRT line is currently planned to have its southern terminus at the Otay Mesa border crossing. An extension of this service to the Otay Mesa East LPOE has been discussed and it is desirable to plan the LPOE area for extension of this line.

- MTS Bus Route Service: In addition to the South Bay BRT line, it is logical to expect that MTS bus service will be extended to the Otay Mesa East LPOE, similar to the service that is provided at Otay Mesa currently. This could be an extension of Route 905 or a different route that would serve the East Otay Mesa area.

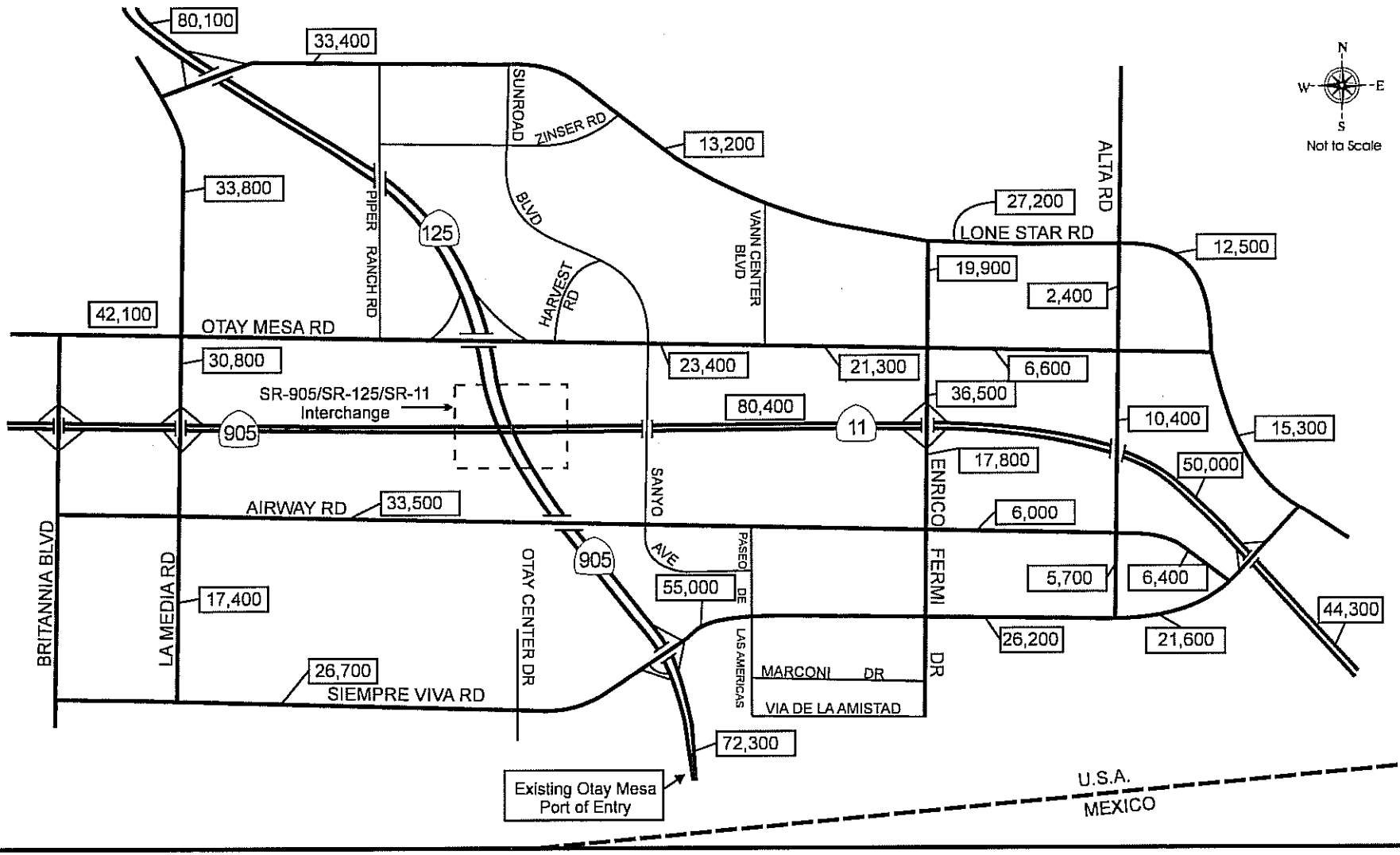
Future Transit Facilities at the Otay Mesa East LPOE

Transit buses carrying passengers to the Otay Mesa East LPOE will need a location to stop for loading and unloading of passengers. The minimum requirement for this service would be a bus stop along Siempre Viva Road, which will be the closest public roadway to the LPOE. A more ideal facility for passenger loading and unloading would be an off-street transit center. The ideal location for a transit center would be the area south of Siempre Viva Road and west of the Otay Mesa East LPOE. Because Siempre Viva Road is aligned from southwest to northeast in the vicinity of the Otay Mesa East LPOE, a location in this area would provide for the minimum possible walking distance between the LPOE and the loading/unloading area for buses.

8.0 FUTURE DEVELOPMENT OF OTAY MESA AREA

The area through which SR-11 is located is expected to experience a substantial amount of land development in the future. San Diego County has prepared the East Otay Mesa Specific Plan that includes plan for development of the County portion of Otay Mesa and the City of San Diego is in the process of updating its community plan for the City portion of Otay Mesa. Both the County and City envision a more rapid development of land than is forecast in the 2030 SANDAG model which forms the basis of this traffic study.

For comparison purposes, Figure 8-1 shows traffic forecasts from the East Otay Mesa Specific Plan analysis. Some of the traffic forecasts from the East Otay Mesa Specific Plan analysis are higher than the corresponding 2035 traffic forecasts provided in the SR-11/Otay Mesa East LPOE traffic analysis. This is an indication that there is a continuing need to monitor traffic forecasts and roadway improvements in the study area.



Buildout Traffic Forecasts

Legend

Existing or Proposed Freeway/Tollway
Existing or Proposed County/City Roadway
XXXXX Average Daily Traffic

Figure 8-1

9.0 SUMMARY OF RESULTS AND CONCLUSIONS

This chapter provides a summary of results and conclusions for Existing (2009) conditions, Opening Year (2015) conditions, and Horizon Year (2035) conditions, as described below. The results and conclusions are based primarily on roadway and intersection operations, expressed in terms of level of service.

Roadway and intersection operations are typically described in terms of levels of service ranging from level of service A (light traffic, minimal delays) to level of service F (traffic congestion and substantial delays). Depending on local conditions, levels of service C, D, and E are all used as the design target for various traffic engineering applications. Additional information on roadway level of service definitions used by Caltrans – District 11 is included in Appendix A.

For the purposes of this analysis, roadway and intersection levels of service were evaluated as follows:

- Levels of service A, B, and C were considered as an indication that there would be no traffic operational problems and that most or all drivers would be satisfied with the resulting traffic conditions. Level of service C or better conditions would be considered to be the ideal level of service target for new roadway facilities (including the SR-11 facility).

- Level of service D was considered to provide a reasonable level of traffic operations for peak hour conditions that would be considered satisfactory for most drivers. A roadway design concept that could achieve level of service D would be recommended where substantial cost increases or other considerations would make it difficult to achieve level of service C.

- Levels of service E and F were considered to indicate potential traffic congestion and were therefore considered to be undesirable. Level of service E was considered to be an indication that the roadway or intersection under study would operate at or near capacity with levels of delay that would be considered unsatisfactory to most drivers. Level of service F was considered to be an indication that the roadway or intersection would be over capacity. Under level of service F conditions, drivers would be expected to experience substantial delays and some drivers would be expected to choose other routes or other time periods to make their trips. Although level of service E and F conditions are considered to be undesirable, they are often an indication of a potential problem and a need for further consideration. This is particularly true for level of service E or F conditions that are predicted for the future, where plans for roadway facilities and/or land development could be modified to resolve a level or service E or F condition that is predicted in this report.

In the case of City and County roadway facilities, levels of service are provided for both roadway segments and intersections. In some cases discrepancies could exist between the level of service reported for intersections along a roadway segment and the level of service for the roadway segment itself. In these cases, the intersection levels of service were considered to be more detailed and were considered to supersede the roadway segment levels of service. The roadway segment levels of service were provided in these cases for information, since they are a common planning tool used by local agencies.

The remainder of this chapter provides an evaluation of Existing (2009) conditions, as well as Opening Year (2015) and Horizon Year (2035) conditions for each of the alternatives and design variations under study.

EXISTING CONDITIONS

Existing roadways and intersections were analyzed for January 2009 conditions and the results were provided in Tables 3-1 through 3-3. There is some traffic congestion relating to border-crossing activity. In addition, the study area is undergoing a substantial amount of roadway construction activity and conditions are expected to change as the construction progresses. The results indicate level of service E or F at the following locations:

- Otay Mesa Road from SR-125 to Sanyo Avenue
- Otay Mesa Road/Sanyo Avenue
- Otay Mesa Road/Alta Road
- Airway Road/La Media Road
- Siempre Viva Road/Paseo De Las Americas

OPENING YEAR (2015) CONDITIONS

Opening Year (2015) conditions assume the construction of SR-905, SR-125, and a number of local roadways, as well as development of land as indicated in the San Diego Association of Governments (SANDAG) regional transportation model. Roadway segments and intersections that were reported to operate at level of service E and F for Existing (2009) conditions are expected to improve to level of service D or better by 2015 and no roadway segments or intersections are expected to experience traffic congestion for the No Build condition or any of the Build alternatives. In general terms, the level of roadway construction in the study area is expected to meet or exceed the level of traffic increases resulting in improved levels of service between 2009 and 2015. Tables 9-1 through 9-4 summarize expected roadway and intersection operations for Opening Year (2015) conditions.

Additional observations regarding Opening Year (2015) conditions include the following:

- Under 2015 No Build conditions, border-crossing delays at the San Ysidro and Otay Mesa Land Ports of Entry (LPOE's) would be expected to increase over today's levels. All of the SR-11 alternatives would provide additional border-crossing capacity resulting in reduced delays.

- The toll alternatives would be expected to carry 25,800 total vehicles per day through the proposed Otay Mesa East LPOE and the no toll alternatives would be expected to carry 29,800 total vehicles per day through the proposed Otay Mesa East LPOE.

- The SR-11 facility would be expected to carry approximately 25,000 to 31,000 total vehicle trips per day, depending on location and alternative. This level of traffic could easily be accommodated by a four-lane freeway/tollway.

- Although all of the SR-11 alternatives and design variations would be expected to provide level of service D or better traffic operations, some would provide improved access and lower travel times. While the specifics of each alternative are described below, it can generally be stated that the alternatives and design variations that provide additional interchanges and ramps provide reduced travel times and more convenient access. Conversely, the interchanges and design variations with fewer interchanges and ramps result in increased travel times and less convenient local access.

Specific observations regarding each of the alternatives and design variations are provided below.

2015 No Build

This alternative would be expected to provide level of service D or better operating conditions throughout the study area, but would provide no improvement in border-crossing delays at the San Ysidro and Otay Mesa LPOE's.

2015 Two Interchange Alternative

In this alternative, SR-11 would be expected to carry 27,300 total vehicles per day at its most heavily-traveled point between the Enrico Fermi and Siempre Viva interchanges. The SR-11 ramps at Enrico Fermi interchange would be expected to carry 12,100 total vehicles per day, indicating that this interchange would be well-utilized in 2015. The SR-11 ramps at the Siempre Viva interchange are forecast to carry only 1,500 vehicles per day, indicating that this interchange would be under-utilized unless local development proceeds at a higher than anticipated rates.

2015 One Interchange Alternative

In this alternative, SR-11 would be expected to carry 25,800 total vehicles per day at its most heavily-traveled point between the Alta interchange and the Otay Mesa East LPOE. The SR-11 ramps at Alta interchange would be expected to carry 16,000 total vehicles per day, indicating that this interchange would be well-utilized in 2015. For 2015 conditions, traffic conditions for this alternative would be very similar to the Toll/Two Interchanges alternative. On an overall basis, the reduction in interchanges from two to one would not be expected to be a major inconvenience, since the Siempre Viva interchange would be expected to be under-utilized in the Two Interchange alternative.

2015 No Interchange Alternative

In this alternative, SR-11 would be expected to carry 25,800 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. It would provide no local access to the East Otay Mesa area and would therefore be less desirable than the Toll/Two Interchange or Toll/One Interchange alternatives from a traffic access point of view.

2015 No Toll/Two Interchange Design Variation

In this alternative, SR-11 would be expected to carry 31,600 total vehicles per day at its most heavily-traveled point between the Enrico Fermi and Siempre Viva interchanges. Traffic operations would be very similar to the Two Interchange Alternative, except that SR-11 would be a no-toll facility and would carry somewhat higher levels of traffic.

2015 No Toll/One Interchange Design Variation

In this alternative, SR-11 would be expected to carry 29,800 total vehicles per day at its most heavily-traveled point between the Alta interchange and the Otay Mesa East LPOE. Traffic operations would be very similar to the One Interchange Alternative, except that SR-11 would be a no-toll facility and would carry somewhat higher levels of traffic.

2015 No Toll/No Interchange Design Variation

In this alternative, SR-11 would be expected to carry 29,800 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. Traffic operations would be very similar to the No Interchange Alternative, except that SR-11 would be a toll facility and would carry somewhat higher levels of traffic.

2015 SR-125 Connector/Two Interchange Design Variation

In this alternative, SR-11 would be expected to carry 27,800 total vehicles per day at its most heavily-traveled point between the Enrico Fermi and Siempre Viva interchanges.

Traffic operations would be very similar to the Two Interchange Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, eastbound SR-11 would carry somewhat higher levels of traffic.

2015 SR-125 Connector/One Interchange Design Variation

In this alternative, SR-11 would be expected to carry 25,800 total vehicles per day at its most heavily-traveled point between the Alta interchange and the Otay Mesa East LPOE. Traffic operations would be very similar to the One Interchange Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, eastbound SR-11 would carry somewhat higher levels of traffic.

2015 SR-125 Connector/No Interchange Design Variation

In this alternative, SR-11 would be expected to carry 25,800 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. Traffic operations would be very similar to the No Interchanges Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, some additional traffic would approach the Otay Mesa area from SR-125, rather than along SR-905 in the No Interchange Alternative.

2015 SR-125 Full Interchange/Two Interchange Design Variation

This design variation would be similar to the Two Interchange Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-125 and SR-905/Siempre Viva Road interchange areas to the proposed Otay Mesa East LPOE, but the level of expected traffic indicates that they would be under-utilized.

2015 SR-125 Full Interchange/One Interchange Design Variation

This design variation would be similar to the One Interchange Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-125 and SR-905/Siempre Viva Road interchange areas to the proposed Otay Mesa East LPOE.

2015 SR-125 Full Interchange/No Interchange Design Variation

This design variation would be similar to the No Interchange Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-125 and SR-905/Siempre Viva Road

interchange areas to the proposed Otay Mesa East LPOE.

2015 SR-11/Siempre Viva Road Interchange Design Variation

This design variation would be similar to the Two Interchange Alternative, except that it would provide more convenient access from the Siempre Viva Road area to destinations in Mexico. Traffic operations would be similar to the Two Interchange Alternative, except for a modest increase in traffic in the SR-11/Siempre Viva Road interchange area and a corresponding decrease at other interchanges, particularly SR-11/Enrico Fermi Road.

HORIZON YEAR (2035) CONDITIONS

Horizon Year (2035) conditions assume the construction of SR-905, SR-125, and a number of local roadways, as well as development of land as indicated in the San Diego Association of Governments (SANDAG) regional transportation model and the analysis of land development projects conducted for this study (as described in Chapter 2). Tables 9-5 through 9-8 summarize expected roadway and intersection operations for Horizon Year (2035) conditions.

Key conclusions of the traffic analysis of 2035 conditions can be summarized as follows:

- Under 2035 No Build conditions, border-crossing delays at the San Ysidro and Otay Mesa Land Ports of Entry (LPOE's) would be expected to increase over today's levels. All of the SR-11 alternatives would provide additional border-crossing capacity resulting in reduced delays.

- The toll alternatives would be expected to carry 45,600 total vehicles per day through the proposed Otay Mesa East LPOE and the no toll alternatives would be expected to carry 52,800 total vehicles per day through the proposed Otay Mesa East LPOE.

- Daily traffic forecasts on SR-11 are expected to range from approximately 45,000 to 80,000 vehicles per day in 2035, depending on design concept, tolling strategy, and location along SR-11. In most cases, a four-lane facility would be adequate to handle this level of traffic. There are a few alternatives where a six-lane facility and/or auxiliary lanes would be desirable.

- The proposed SR-11 design concept is expected to accommodate nearly all of the alternatives and design variations, while providing level of service D or better traffic operations for all of the freeway mainline segments, weaving sections, ramps, and ramp terminal intersections. The exception is the No Toll/One Interchange Design Variation, which is expected to experience level of service E conditions in the PM peak hour in the area between the Alta Road interchange and the SR-905/SR-125/SR-11 interchange. Some of the alternatives design variations would provide

improved access and lower travel times. While the specifics of each alternative are described below, it can generally be stated that the alternatives and design variations that provide additional interchanges and ramps provide reduced travel times and more convenient access. Conversely, the interchanges and design variations with fewer interchanges and ramps result in increased travel times and less convenient access.

- The SR-11/ Otay Mesa East LPOE project would generally tend to reduce traffic or have no effect on other freeways in the study area. One exception is the segment of SR-905 between I-805 and the SR-905/SR-125/SR-11 interchange. Traffic congestion is expected in 2035 along this freeway segment in the No Build condition and the construction of the project would tend to slightly increase the level of traffic congestion, depending on the alternative and location along SR-905. A second exception occurs on SR-125 north of Lone Star Road. This freeway segment is expected to operate at level of service D in the No Build condition and at level of service E in all of the project alternatives and design variations..

- The SR-11/ Otay Mesa East LPOE project would generally tend to reduce traffic or have no effect on intersection operations in the study area. Exceptions occur at the Otay Mesa Road/La Media Road intersection (in all alternatives), at the intersection of Otay Mesa Road/Enrico Fermi Road (for alternatives in which there is an SR-11/Enrico Fermi interchange), and in the SR-905/Siempre Viva Road interchange area (for alternatives with no SR-11 interchanges).

Specific observations regarding each of the alternatives and design variations are provided below.

2035 No Build

This alternative would be expected to provide level of service D or better operating conditions throughout much of the study area, but would provide no improvement in border-crossing delays at the San Ysidro and Otay Mesa LPOE's.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Sunroad Boulevard, Zinser Road to Otay Mesa Road
- Enrico Fermi Drive, Otay Mesa Road to SR-905 Extension
- Alta Road, North of Lone Star Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

2035 Two Interchange Alternative

In this alternative, SR-11 would be expected to carry 62,600 total vehicles per day at its most heavily-traveled point between the SR-905/SR-125 and Enrico Fermi interchanges. The SR-11 ramps at Enrico Fermi interchange would be expected to carry 44,800 total vehicles per day, indicating that this interchange would be heavily utilized in 2035.

The SR-11 ramps at the Siempre Viva interchange are forecast to carry 13,400 vehicles per day, indicating that this interchange would be well-utilized in 2035.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak hour would be expected to improve from level of service F to level of service E. At the intersection of Otay Mesa Road/Enrico Fermi Drive, this alternative would be expected to worsen to the level of service in the PM peak hour from level of service D to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Enrico Fermi Drive, Otay Mesa Road to SR-11
- Alta Road, North of Lone Star Road

Two intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- Otay Mesa Road/Enrico Fermi Drive

2035 One Interchange Alternative

In this alternative, SR-11 would be expected to carry 48,600 total vehicles per day at its most heavily-traveled point between the SR-905/SR-125 and Alta interchanges. The SR-11 ramps at Alta interchange would be expected to carry 47,000 total vehicles per day, indicating that this interchange would be heavily utilized in 2035. For 2035 conditions,

traffic conditions for this alternative would be similar to the Two Interchange Alternative, except that SR-11 would provide less convenient access to the Otay Mesa area and would carry somewhat less traffic.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak hour would be expected to improve from level of service F to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Alta Road, North of Lone Star Road
- Alta Road, Otay Mesa Road to Airway Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

2035 No Interchange Alternative

In this alternative, SR-11 would be expected to carry 45,600 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. It would provide no local access to the East Otay Mesa area and would therefore be less desirable than the Toll/Two Interchange or Toll/One Interchange alternatives from a traffic access point of view.

As compared to the No Build alternative, this alternative would provide level of service E or F conditions at two intersections that would not occur in the No Build. This situation would occur at the intersections of Siempre Viva Road with Paseo De Las Americas and Enrico Fermi Drive.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905

- Lone Star Road, SR-125 to Enrico Fermi Drive
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Alta Road, North of Lone Star Road

Five intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- SR-905/La Media Road Westbound Ramps
- SR-905/Siempre Viva Road Northbound Ramps
- Siempre Viva Road/Paseo De Las Americas
- Siempre Viva Road/Enrico Fermi Drive

2035 No Toll/Two Interchange Design Variation

In this alternative, SR-11 would be expected to carry 74,800 total vehicles per day at its most heavily-traveled point between Enrico Fermi and Siepmre Viva interchanges. Traffic operations would be very similar to the Two Interchange Alternative, except that SR-11 would be a no-toll facility and would carry somewhat higher levels of traffic.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak hour and the PM peak hour would be expected to improve from level of service F to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Enrico Fermi Drive, Otay Mesa Road to SR-11
- Alta Road, North of Lone Star Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

2035 No Toll/One Interchange Design Variation

In this alternative, SR-11 would be expected to carry 61,400 total vehicles per day at its most heavily-traveled point between the SR-905/SR-125 and Alta interchanges. Traffic operations would be similar to the One Interchange Alternative, except that SR-11 would be a no-toll facility and would carry somewhat higher levels of traffic.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak hour would be expected to improve from level of service F to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Alta Road, North of Lone Star Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

2035 No Toll/No Interchange Design Variation

In this alternative, SR-11 would be expected to carry 52,800 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. Traffic operations would be similar to the No Interchanges Alternative, except that SR-11 would be a toll facility and would carry somewhat higher levels of traffic.

As compared to the No Build alternative, this alternative would provide level of service E or F conditions at two intersections that would not occur in the No Build. This situation would occur at the intersections of Siempre Viva Road with Paseo De Las Americas and Enrico Fermi Drive.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Enrico Fermi Drive
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Alta Road, North of Lone Star Road

Four intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- Otay Mesa Road/Piper Ranch Road
- Siempre Viva Road/Paseo De Las Americas
- Siempre Viva Road/Enrico Fermi Drive

2035 SR-125 Connector/Two Interchange Design Variation

In this alternative, SR-11 would be expected to carry 66,600 total vehicles per day at its most heavily-traveled point between the SR-11/SR-125/SR-905 and Enrico Fermi interchanges. Traffic operations would be very similar to the Two Interchange Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, eastbound SR-11 would carry somewhat higher levels of traffic.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak hour and the PM peak hour would be expected to improve from level of service F to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Enrico Fermi Drive, Otay Mesa Road to SR-11
- Alta Road, North of Lone Star Road

Two intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- Otay Mesa Road/Enrico Fermi Drive

2035 SR-125 Connector/One Interchange Design Variation

In this alternative, SR-11 would be expected to carry 52,600 total vehicles per day at its most heavily-traveled point between the SR-905/SR-125 and Alta interchanges. Traffic operations would be similar to the One Interchange Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, eastbound SR-11 would carry somewhat higher levels of traffic.

As compared to the No Build alternative, this alternative would provide an improvement at the Otay Mesa Road/La Media Road intersection in that the level of service in the AM peak

hour would be expected to improve from level of service F to level of service E.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Alta Road, North of Lone Star Road
- Alta Road, Otay Mesa Road to Airway Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

2035 SR-125 Connector/No Interchange Design Variation

In this alternative, SR-11 would be expected to carry 45,600 total vehicles per day between the SR-905/SR-125 interchange and the Otay Mesa East LPOE. Traffic operations would be similar to the No Interchange Alternative. However, with the addition of the southbound SR-125 to eastbound SR-11 connector ramp, some additional traffic would approach the Otay Mesa area from SR-125, rather than along SR-905 in the No Interchange Alternative.

As compared to the No Build alternative, this alternative would provide level of service E or F conditions at two intersections that would not occur in the No Build. This situation would occur at the intersections of Siempre Viva Road with Paseo De Las Americas and Enrico Fermi Drive.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Enrico Fermi Drive
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Alta Road, North of Lone Star Road

Four intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- SR-905/Siempre Viva Road Northbound Ramps
- Siempre Viva Road/Paseo De Las Americas
- Siempre Viva Road/Enrico Fermi Drive

Full Interchange/Two Interchange Design Variation

This design variation would be similar to the Two Interchanges Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-905/Siempre Viva Road interchange area to the proposed Otay Mesa East LPOE, and the level of expected traffic indicates that they would be well-utilized.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Sunroad Boulevard
- Enrico Fermi Drive, Otay Mesa Road to SR-11
- Alta Road, North of Lone Star Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

Full Interchange/One Interchange Design Variation

This design variation would be similar to the One Interchange Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-905/Siempre Viva Road interchange area to the proposed Otay Mesa East LPOE, and the level of expected traffic indicates that they would be well-utilized.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905

- I-805, I-5 to North of SR-905
- Lone Star Road, La Media Road to SR-125
- Alta Road, North of Lone Star Road
- Alta Road, Otay Mesa Road to Airway Road

One intersection would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road

Full Interchange/No Interchange Design Variation

This design variation would be similar to the No Interchange Alternative, except that it would add southbound to eastbound, northbound to eastbound and westbound to southbound ramps at the SR-905/SR-125/SR-11 interchange. The additional ramps would provide more convenient access from the SR-905/Siempre Viva Road interchange area to the proposed Otay Mesa East LPOE, and the level of expected traffic indicates that they would be well-utilized.

As compared to the No Build alternative, this alternative would provide level of service E or F conditions at three intersections that would not occur in the No Build. This situation would occur at the intersections of Otay Mesa Road and La Media Road and at the intersections of Siempre Viva Road with the SR-905 Northbound Ramps and Paseo De Las Americas.

Roadway segments that would be expected to operate at level of service E or F include the following:

- SR-125, North of Lone Star Road
- SR-905, I-5 to La Media Road
- I-5, North of SR-905
- I-805, I-5 to North of SR-905
- Lone Star Road, SR-125 to Enrico Fermi Drive
- Siempre Viva Road, SR-905 to Paseo De Las Americas
- Sunroad Boulevard, Zinser Road to Otay Mesa Road
- Alta Road, North of Lone Star Road

Three intersections would be expected to operate at level of service E or F:

- Otay Mesa Road/La Media Road
- Siempre Viva Road/SR-905 Northbound Ramps
- Siempre Viva Road/Paseo De Las Americas

SR-11/Siempre Viva Road Interchange Design Variation

This design variation would be similar to the Two Interchange Alternative, except that it would provide a full interchange at SR-11/Siempre Viva Road. The additional ramps provided by the full interchange would provide more convenient access from the Siempre Viva Road interchange area to destinations in Mexico. Traffic forecasts indicates that the additional ramps, as well as other ramps at the Enrico Fermi Drive and Siempre Viva Road interchanges would be well-utilized in this design variation

This design variation would not provide level of service E or F conditions at any intersections where these conditions would not occur in the No Build. The only level of service E condition under this design variation would occur at the intersection of Otay Mesa Road and La Media Road.

The segment of Lone Star Road between SR-125 and Sunroad Boulevard is the only roadway segment that would be expected to operate at level of service E or F under this design variation.

As described in Chapter 5, this design variation would be expected to have a number of traffic queuing issues in the SR-11/Siempre Viva Road interchange area that would not occur in the other alternatives and design variations.

Table 9-1
Opening Year (2015)
SR-11 Capacity Analysis

Intersection	Two Interchange Alternative				One Interchange Alternative				No Interchange Alternative				No Toll / Two Interchange Design Variation				No Toll / One Interchange Design Variation				No Toll / No Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound																								
Alta Rd Off Ramp	-	-	-	-	A (3)	5.4 (3)	A (3)	6.3 (3)	-	-	-	-	-	-	-	-	A (3)	6.0 (3)	A (3)	7.4 (3)	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B (3)	10.3 (3)	B (3)	13.2 (3)	-	-	-	-	-	-	-	-	B (3)	11.5 (3)	B (3)	14.8 (3)	-	-	-	-
Alta Rd On Ramp to Siempre Viva Rd	-	-	-	-	A (3)	6.6 (3)	A (3)	8.8 (3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alta Road On Ramp to Passenger Car Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A (3)	7.9 (3)	B (3)	10.2 (3)	-	-	-	-
Enrico Fermi Rd Off Ramp	A (3)	-1.9 (3)	A (3)	0.2 (3)	-	-	-	-	-	-	-	-	A (3)	-0.7 (3)	A (3)	1.9 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp	B (3)	10.9 (3)	B (3)	13.7 (3)	-	-	-	-	-	-	-	-	B (3)	12.3 (3)	B (3)	15.6 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	A	6.3	A	8.4	-	-	-	-	B	14.6	B	18.0	A	7.3	A	9.7	-	-	-	-	A	6.6	A	8.6
Passenger Car Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A (3)	1.0 (3)	A (3)	4.4 (3)	-	-	-	-
Siempre Viva Rd and Passenger Car Off Ramp	A (3)	1.0 (3)	A (3)	3.4 (3)	A (3)	1.0 (3)	A (3)	2.5 (3)	A (3)	6.2 (3)	B (3)	11.7 (3)	A (3)	1.9 (3)	A (3)	5.4 (3)	-	-	-	-	A (3)	1.0 (3)	A (3)	3.4 (3)
Siempre Viva Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	B (3)	10.4 (3)	B (3)	14.0 (3)	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Auto's Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	8.2	B	11.7	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	1.3	A	1.2	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	A	7.1	A	10.1	A	7.1	A	10.1	B	12.7	B	17.9	A	8.2	B	11.7	-	-	-	-	A	7.1	A	10.1
South of Siempre Viva Rd (Commercial Only)	A	1.1	A	1.0	A	1.1	A	1.0	A	1.9	A	1.7	A	1.2	A	1.1	-	-	-	-	A	1.1	A	1.0
SR-125 On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 On Ramp to Alta Rd Off Ramp	-	-	-	-	A	5.7	A	6.6	-	-	-	-	-	-	-	-	A	6.3	A	7.7	-	-	-	-
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	A	4.8	A	6.2	-	-	-	-	B	17.8	B	16.3	A	5.6	A	7.3	-	-	-	-	A	5.9	A	7.2
SR-125 On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound																								
Alta Rd Off Ramp	-	-	-	-	A	8.4	A	7.7	-	-	-	-	-	-	-	-	A	9.4	A	8.5	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B	12.3	B	12.4	-	-	-	-	-	-	-	-	B	14.2	B	13.6	-	-	-	-
Alta Rd On Ramp to SR-125 Off Ramp	-	-	-	-	B	11.3	B	11.3	-	-	-	-	-	-	-	-	B	13.8	B	12.7	-	-	-	-
Enrico Fermi Rd On Ramp to SR-125 Off Ramp	A	8.9	A	8.8	-	-	-	-	-	-	-	-	A	10.7	A	10.5	-	-	-	-	-	-	-	-
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	A (3)	2.2 (3)	A (3)	1.2 (3)	-	-	-	-	-	-	-	-	A (3)	4.3 (3)	A (3)	3 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp	B (3)	14.6 (3)	B (3)	14.4 (3)	-	-	-	-	-	-	-	-	B (3)	17.1 (3)	B (3)	16.8 (3)	-	-	-	-	-	-	-	-
Passenger Car On Ramp	-	-	-	-	B	15.2	B	14.1	-	-	-	-	-	-	-	-	B	17.1	B	15.7	-	-	-	-
Passenger Car On Ramp to Alta Rd Off Ramp	-	-	-	-	B	10.0	A	9.0	-	-	-	-	-	-	-	-	B	13.2	B	11.7	-	-	-	-
Siempre Viva Rd On Ramp	A	10.0	A	9.6	-	-	-	-	-	-	-	-	B	11.1	B	10.7	-	-	-	-	-	-	-	-
Siempre Viva Rd and Passenger Car Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	A	9.8	A	9.2	-	-	-	-	-	-	-	-	B	11.3	A	10.6	-	-	-	-	-	-	-	-
Siempre Viva Rd to Alta Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd to SR-125 Off Ramp	-	-	-	-	-	-	-	-	B	14.3	B	12.9	-	-	-	-	-	-	-	-	B	16.3	B	14.9
South of Alta Rd (Auto's Only)	-	-	-	-	B	12.1	A	10.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	1.4	A	1.4	-	-	-	-	-	-	-	-	A	1.7	A	1.5	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	B	12.1	A	10.9	-	-	-	-	B	12.9	B	11.7	B	13.9	B	12.6	-	-	-	-	B	14.8	B	13.5
South of Siempre Viva Rd (Commercial Only)	A	1.4	A	1.4	-	-	-	-	A	1.4	A	1.3	B	16.7	B	15.7	-	-	-	-	A	1.6	A	1.5
SR-905 Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 Off Ramp	B (3)	10.3 (3)	A (3)	8.9 (3)	A	7.0	A	7.0	B	15.1	B	13.8	B (3)	12.3 (3)	B (3)	10.6 (3)	A	9.8	A	7.3	B	17.0	B	15.6

(1) LOS = Level of Service
(2) Density is expressed in passengar cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 9-1 (continued)
Opening Year (2015)
SR-11 Capacity Analysis

Intersection	SR-125 Connector / Two Interchange Design Variation				SR-125 Connector / One Interchange Design Variation				SR-125 Connector / No Interchange Design Variation				Full Interchange / Two Interchange Design Variation				Full Interchange / One Interchange Design Variation				Full Interchange / No Interchange Design Variation				Siempre Viva Road / Full Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound																												
Alta Rd Off Ramp	-	-	-	-	A	3.8	A	5.2	-	-	-	-	-	-	-	-	A (3)	0.6 (3)	A (3)	-2.6 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B	10.3	B	13.2	-	-	-	-	-	-	-	-	B (3)	10.5 (3)	A (3)	8.2 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	5.7	A	4.1	-	-	-	-	-	-	-	-
Alta Road On Ramp to Passenger Car Off Ramp	-	-	-	-	A	6.6	A	8.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	A (3)	1.0 (3)	A (3)	1.0 (3)	-	-	-	-	-	-	-	-	A (3)	-1.6 (3)	A (3)	-3.3 (3)	-	-	-	-	-	-	-	-	A (3)	1.0 (3)	A (3)	1.3 (3)
Enrico Fermi Rd On Ramp	B (3)	11.3 (3)	B (3)	14.1 (3)	-	-	-	-	-	-	-	-	B (3)	12.2 (3)	A (3)	9.7 (3)	-	-	-	-	-	-	-	-	A(3)	9.7 (3)	B (3)	12 (3)
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	A	6.6	A	8.6	-	-	-	-	-	-	-	-	A	7.1	A	5.4	-	-	-	-	-	-	-	-	A	5.4	A	7.0
Passenger Car Off Ramp	-	-	-	-	A	1.0	A	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd and Passenger Car Off Ramp	A (3)	1.0 (3)	B (3)	11.7 (3)	-	-	-	-	-	-	-	-	A (3)	9.2 (3)	A (3)	6.6 (3)	A (3)	8.8 (3)	A (3)	6.4 (3)	-	-	-	-	A (3)	7.4 (3)	A (3)	1.1 (3)
Siempre Viva Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	A (3)	1.3 (3)	A (3)	-1.3 (3)	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B (3)	10.5	B (3)	13.4
South of Alta Rd (Auto's Only)	-	-	-	-	A	7.1	A	10.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	1.1	A	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	A	7.1	A	10.1	-	-	-	-	A	7.7	A	10.9	A	7.2	A	5.1	A	7.2	A	5.1	A	7.8	A	5.4	A	7.1	A	10.1
South of Siempre Viva Rd (Commercial Only)	A	1.1	A	1.0	-	-	-	-	A	1.1	A	1.0	A	1.1	A	1.0	A	1.1	A	1.0	A	1.1	A	1.0	A	1.1	A	1.0
SR-125 On Ramp	B (3)	10.3 (3)	B (3)	12.2 (3)	A	8.5	A	9.6	B	10.0	B	12.9	B	13.3	B	10.3	B	11.0	A	8.1	B	10.1	A	7.9	A (3)	10 (3)	B (3)	11.7 (3)
SR-125 On Ramp to Alta Rd Off Ramp	-	-	-	-	A	7.0	A	8.2	-	-	-	-	-	-	-	-	A	9.9	A	6.6	-	-	-	-	-	-	-	-
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	A	5.9	A	7.2	-	-	-	-	-	-	-	-	A	8.1	A	5.8	-	-	-	-	-	-	-	-	A	5.6	A	6.8
SR-125 On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	A	8.7	B	11.8	-	-	-	-	-	-	-	-	A	8.8	A	6.4				
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound																												
Alta Rd Off Ramp	-	-	-	-	A	8.4	A	7.7	-	-	-	-	-	-	-	-	A (3)	5.2 (3)	A (3)	3.8 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B	12.3	B	12.4	-	-	-	-	-	-	-	-	B (3)	15.4 (3)	B (3)	15.1 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp to SR-125 Off Ramp	-	-	-	-	B	11.3	B	11.3	-	-	-	-	-	-	-	-	A	9.5	A	9.3	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp to SR-125 Off Ramp	A	8.9	A	8.8	-	-	-	-	-	-	-	-	A	10.9	B	11.1	-	-	-	-	-	-	-	-	A	8.6	A	8.4
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	A (3)	2.2 (3)	A (3)	1.2 (3)	-	-	-	-	-	-	-	-	A (3)	6.6 (3)	A (3)	5.8 (3)	-	-	-	-	-	-	-	-	A (3)	3.7 (3)	A (3)	2.9 (3)
Enrico Fermi Rd On Ramp	B (3)	14.6 (3)	B (3)	14.4 (3)	-	-	-	-	-	-	-	-	B (3)	17.4 (3)	B (3)	17.6 (3)	-	-	-	-	-	-	-	-	B (3)	14.2 (3)	B (3)	13.9 (3)
Passenger Car On Ramp	-	-	-	-	B	15.2	B	14.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Passenger Car On Ramp to Alta Rd Off Ramp	-	-	-	-	B	10.0	A	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	A	10.0	A	9.6	-	-	-	-	-	-	-	-	B (3)	10.4 (3)	A (3)	9.6 (3)	-	-	-	-	-	-	-	-	A	7.8	A	9.2
Siempre Viva Rd and Passenger Car Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	A	9.4	A	8.5	-	-	-	-					A (3)	5.1	A (3)	9.9
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	A	9.8	A	9.2	-	-	-	-	-	-	-	-	A	10.3	A	9.8	-	-	-	-	-	-	-	-	A	8.5	A	7.9
Siempre Viva Rd to Alta Rd Off Ramp	-	-	-	-					-	-	-	-	-	-	-	-	A	9.4	A	8.5	-	-	-	-	-	-	-	-
Siempre Viva Rd to SR-125 Off Ramp	-	-	-	-	-	-	-	-	B	14.3	B	12.9	-	-	-	-	-	-	-	-	B	14.4	B	13.1				
South of Alta Rd (Auto's Only)	-	-	-	-	B	12.1	A	10.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	1.4	A	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	B	12.1	A	10.9	-	-	-	-	B	12.9	B	11.7	B	12.2	B	11.0	B	12.2	B	11.0	B	13.1	B	11.9	B	12.1	A	10.9
South of Siempre Viva Rd (Commercial Only)	A	1.4	A	1.4	-	-	-	-	A	1.4	A	1.3	A	1.4	A	1.3	A	1.4	A	1.3	A	1.4	A	1.3	A	1.4	A	1.3
SR-905 Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	B (3)	13.4 (3)	B (3)	12.0 (3)	B (3)	11.4 (3)	A (3)	9.4 (3)	-	-	-	-	-	-	-	-
SR-125 Off Ramp	B (3)	10.3 (3)	A (3)	8.9 (3)	A	7.0	A	7.0	B	15.1	B	13.8	B (3)	16.5 (3)	B (3)	16.8 (3)	B (3)	14.3 (3)	B (3)	14.0 (3)	B	15.3	B	14.0	B (3)	12.9 (3)	B (3)	12.7 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 9-2
Opening Year (2015)
Freeway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
SR-125	North of Lone Star Rd	0.20	A	0.43	B	0.43	B	0.44	B	0.43	B	0.43	B	0.45	B
	Lone Star Rd to Otay Mesa Rd	0.20	A	0.43	B	0.43	B	0.44	B	0.43	B	0.43	B	0.45	B
SR-905	I-5 to I-805	0.63	C	0.66	C	0.66	C	0.67	C	0.66	C	0.66	C	0.67	C
	I-805 to Otay Mesa Rd	0.63	C	0.78	C	0.78	C	0.79	D	0.79	D	0.79	C	0.80	D
	Otay Mesa Rd to Britannia Blvd	0.63	C	0.63	C	0.63	C	0.65	C	0.64	C	0.64	C	0.65	C
	Britannia Blvd to La Media Rd	0.73	C	0.63	C	0.60	B	0.62	B	0.62	B	0.62	B	0.63	C
	SR 125/ SR 11 to Sempre Viva Road	0.51	B	0.44	B	0.45	B	0.46	B	0.44	B	0.44	B	0.46	B
	Siempre Viva Rd to International Border (1)	0.47	B	0.40	A	0.40	A	0.40	A	0.39	A	0.39	A	0.39	A
I-5	North of SR 905	0.89	D	0.86	D	0.86	D	0.86	D	0.86	D	0.86	D	0.86	D
	SR-905 to I-805	0.54	B	0.51	B	0.44	B	0.44	B	0.44	B	0.44	B	0.44	B
	I-805 to International Border (1)	0.59	B	0.47	B	0.47	B	0.47	B	0.46	B	0.46	B	0.46	B
I-805	North of SR-905	0.60	B	1.06	F	1.05	F	1.06	F	1.05	F	1.05	F	1.06	F
	SR-905 to I-5	0.42	B	0.65	C	0.65	C	0.65	C	0.64	C	0.64	C	0.64	C

operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-2 (continued)
Opening Year (2015)
Freeway Segment Capacity Analysis

ROUTE	LIMITS	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
SR-125	North of Lone Star Rd	0.22	A	0.22	A	0.23	A	0.46	B	0.46	B	0.23	A	0.44	B
	Lone Star Rd to Otay Mesa Rd	0.22	A	0.22	A	0.23	A	0.46	B	0.46	B	0.23	A	0.44	B
SR-905	I-5 to I-805	0.66	C	0.65	C	0.66	C	0.66	C	0.66	C	0.66	C	0.65	C
	I-805 to Otay Mesa Rd	0.77	C	0.77	C	0.78	C	0.78	C	0.78	C	0.78	C	0.76	C
	Otay Mesa Rd to Britannia Blvd	0.62	C	0.62	B	0.64	C	0.63	C	0.63	C	0.63	C	0.61	B
	Britannia Blvd to La Media Rd	0.59	B	0.59	B	0.61	B	0.61	B	0.61	B	0.60	B	0.59	B
	SR 125/ SR 11 to Sempre Viva Road	0.43	B	0.44	B	0.46	B	0.44	B	0.45	B	0.49	B	0.23	A
	Siempre Viva Rd to International Border (1)	0.40	A	0.40	A	0.40	A	0.40	A	0.40	A	0.40	A	0.24	A
I-5	North of SR 905	0.89	D	0.89	D	0.89	D	0.85	D	0.85	D	0.89	D	0.85	D
	SR-905 to I-805	0.58	B	0.50	B	0.50	B	0.44	B	0.44	B	0.50	B	0.44	B
	I-805 to International Border (1)	0.52	B	0.52	B	0.52	B	0.47	B	0.47	B	0.52	B	0.52	B
I-805	North of SR-905	0.58	B	0.58	B	0.58	B	1.05	F	1.05	F	0.57	B	1.05	F
	SR-905 to I-5	0.38	A	0.38	A	0.39	A	0.65	C	0.65	C	0.38	A	0.65	C

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-3
Opening Year (2015)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Lone Star Rd	SR-125 to Sunroad Blvd	0.06	A	0.05	A	0.05	A	0.05	A	0.03	A	0.07	A	0.05	A
	Sunroad Blvd to Enrico Fermi Dr	0.06	A	0.08	A	0.05	A	0.05	A	0.08	A	0.07	A	0.05	A
	Enrico Fermi Dr to Alta Rd	0.12	A	0.11	A	0.05	A	0.14	A	0.14	A	0.07	A	0.11	A
	Alta Rd to Otay Mesa Rd	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	Otay Mesa Rd to Siempre Viva Rd	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	0.09	A	0.12	A	0.09	A	0.09	A	0.09	A	0.12	A	0.09	A
Otay Mesa Rd	Britannia Blvd to La Media Rd	0.21	A	0.20	A	0.20	A	0.22	A	0.20	A	0.20	A	0.22	A
	La Media Rd to SR-125	0.13	A	0.13	A	0.12	A	0.14	A	0.12	A	0.12	A	0.15	A
	SR-125 to Sun Road Blvd	0.09	A	0.10	A	0.10	A	0.16	A	0.10	A	0.10	A	0.12	A
	Sun Road Blvd to Enrico Fermi Dr	0.05	A	0.07	A	0.07	A	0.05	A	0.07	A	0.09	A	0.05	A
	Enrico Fermi Dr to Alta Rd	0.05	A	0.05	A	0.11	A	0.03	A	0.05	A	0.11	A	0.03	A
	Alta Rd to Lone Star Rd	0.01	A	0.00	A	0.00	A	0.00	A	0.01	A	0.01	A	0.01	A
Airway Rd	Britannia Blvd to La Media Rd	0.23	A	0.23	A	0.23	A	0.23	A	0.23	A	0.23	A	0.23	A
	La Media Rd to SR 905	0.16	A	0.18	A	0.18	A	0.20	A	0.18	A	0.18	A	0.23	A
	SR 905 to Paseo De Las Americas	0.02	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	Paseo de las Americas to Enrico Fermi Dr	0.02	A	0.03	A	0.05	A	0.05	A	0.08	A	0.05	A	0.05	A
	Enrico Fermi Dr to Alta Rd	0.01	A	0.03	A	0.08	A	0.05	A	0.03	A	0.11	A	0.05	A
	Alta Rd to Siempre Viva Rd	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	0.04	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	La Media Rd to Otay Center Dr	0.14	A	0.15	A	0.13	A	0.15	A	0.13	A	0.13	A	0.15	A
	Otay Center Dr to SR 905	0.20	A	0.18	A	0.17	A	0.33	A	0.22	A	0.22	A	0.23	A
	SR-905 to Paseo De Las Americas	0.45	A	0.45	B	0.48	B	0.50	B	0.45	B	0.49	B	0.50	B
	Paseo De Las Americas to Enrico Fermi Dr	0.09	A	0.12	A	0.15	A	0.13	A	0.13	A	0.16	A	0.13	A
	Enrico Fermi Dr to Alta Rd	0.05	A	0.06	A	0.14	A	0.05	A	0.05	A	0.15	A	0.05	A
	Alta Rd to Airway Rd	0.03	A	0.04	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	Airway Rd to SR-11	0.03	A	0.04	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	SR-11 to Lone Star Rd	0.03	A	0.01	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 9-3 (continued)
Opening Year (2015)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Brittania Blvd	Otay Mesa Rd to SR-905	0.29	A	0.30	A	0.30	A	0.30	A	0.30	A	0.30	A	0.33	A
	SR-905 to Airway Rd	0.26	A	0.28	A	0.28	A	0.28	A	0.28	A	0.28	A	0.28	A
	Airway Rd to Siempre Viva Rd	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A
La Media Rd	Lone Star Rd to Otay Mesa Rd	0.23	A	0.22	A	0.23	A	0.23	A	0.23	A	0.23	A	0.23	A
	Otay Mesa Rd to SR-905	0.22	A	0.20	A	0.22	A	0.26	A	0.20	A	0.22	A	0.25	A
	SR-905 to Airway Rd	0.16	A	0.15	A	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A
	Airway Rd to Siempre Viva Rd	0.34	A	0.33	A	0.35	A	0.35	A	0.35	A	0.33	A	0.35	A
Piper Ranch Rd	Lone Star Rd to Zinser Rd	0.07	A	0.06	A	0.09	A	0.09	A	0.06	A	0.09	A	0.01	A
	Zinzer Rd to Otay Mesa Rd	0.28	A	0.27	A	0.27	A	0.30	A	0.27	A	0.30	A	0.30	A
Sunroad Blvd	Lone Star Rd to Zinser Rd	0.01	A	0.00	A	0.00	A	0.00	A	0.01	A	0.01	A	0.01	A
	Zinser Rd to Otay Mesa Rd	0.11	A	0.13	A	0.10	A	0.17	A	0.10	A	0.10	A	0.10	A
Sanyo Ave	Otay Mesa Rd to SR 905	0.10	A	0.18	A	0.13	A	0.12	A	0.18	A	0.20	A	0.18	A
	SR 905 to Airway	0.12	A	0.20	A	0.13	A	0.13	A	0.20	A	0.40	B	0.20	A
	Airway Rd to Paseo De Las Americas	0.33	A	0.20	A	0.20	A	0.20	A	0.20	A	0.20	A	0.20	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	0.09	A	0.09	A	0.04	A	0.09	A	0.11	A	0.04	A	0.09	A
	Otay Mesa Rd to SR - 905	0.15	A	0.24	A	0.03	A	0.14	A	0.24	A	0.07	A	0.14	A
	SR-905 to Siempre Viva Rd	0.10	A	0.16	A	0.11	A	0.14	A	0.22	A	0.15	A	0.14	A
	South of Siempre Viva Rd	0.01	A	0.03	A	0.03	A	0.00	A	0.03	A	0.03	A	-	-
Alta Rd	North of Lone Star Rd	0.25	A	0.25	B	0.25	B	0.25	B	0.25	B	0.25	B	0.25	B
	Lone Star Rd to Otay Mesa Rd	0.01	A	0.00	A	0.08	A	0.00	A	0.01	A	0.11	A	0.01	A
	Otay Mesa Rd to Airway Rd	0.02	A	0.03	A	0.19	A	0.00	A	0.03	A	0.16	A	0.01	A
	Airway Rd to Siempre Viva Rd	0.01	A	0.00	A	0.11	A	0.00	A	0.01	A	0.04	A	0.01	A

V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-3 (continued)
Opening Year (2015)
Roadway Segment Capacity Analysis

ROUTE	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Lone Star Rd	0.04	A	0.06	A	0.06	A	0.03	A	0.05	A	0.06	A	0.04	A
	0.07	A	0.06	A	0.06	A	0.08	A	0.05	A	0.06	A	0.06	A
	0.11	A	0.06	A	0.14	A	0.11	A	0.03	A	0.13	A	0.10	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A
Zinser Rd	0.11	A	0.10	A	0.09	A	0.09	A	0.09	A	0.08	A	0.11	A
Otay Mesa Rd	0.20	A	0.20	A	0.21	A	0.20	A	0.20	A	0.21	A	0.20	A
	0.12	A	0.13	A	0.15	A	0.12	A	0.12	A	0.14	A	0.12	A
	0.08	A	0.09	A	0.12	A	0.07	A	0.07	A	0.12	A	0.08	A
	0.05	A	0.05	A	0.06	A	0.05	A	0.04	A	0.05	A	0.05	A
	0.05	A	0.07	A	0.04	A	0.05	A	0.08	A	0.04	A	0.04	A
	0.01	A	0.01	A	0.01	A	0.00	A	0.00	A	0.01	A	0.01	A
Airway Rd	0.23	A	0.23	A	0.23	A	0.23	A	0.20	A	0.23	A	0.23	A
	0.17	A	0.17	A	0.20	A	0.18	A	0.18	A	0.18	A	0.17	A
	0.02	A	0.02	A	0.01	A	0.03	A	0.03	A	0.01	A	0.01	A
	0.04	A	0.04	A	0.05	A	0.03	A	0.03	A	0.05	A	0.04	A
	0.01	A	0.05	A	0.05	A	0.03	A	0.03	A	0.05	A	0.03	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.04	A
Siempre Viva Rd	0.04	A	0.04	A	0.04	A	0.03	A	0.03	A	0.04	A	0.04	A
	0.14	A	0.14	A	0.14	A	0.15	A	0.15	A	0.14	A	0.14	A
	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A	0.06	A	0.18	A
	0.44	B	0.44	B	0.50	B	0.40	A	0.42	B	0.51	B	0.44	B
	0.10	A	0.11	A	0.14	A	0.07	A	0.08	A	0.14	A	0.11	A
	0.05	A	0.07	A	0.05	A	0.05	A	0.05	A	0.05	A	0.10	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.07	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.12	A
	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A	0.03	A

Table 9-3 (continued)
Opening Year (2015)
Roadway Segment Capacity Analysis

ROUTE	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Brittania Blvd	0.30	A	0.30	A	0.30	A	0.30	A	0.30	A	0.30	A	0.30	A
	0.27	A	0.27	A	0.27	A	0.28	A	0.28	A	0.27	A	0.27	A
	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A	0.18	A
La Media Rd	0.22	A	0.22	A	0.23	A	0.23	A	0.23	A	0.23	A	0.22	A
	0.21	A	0.22	A	0.25	A	0.20	A	0.22	A	0.24	A	0.21	A
	0.16	A	0.16	A	0.18	A	0.15	A	0.15	A	0.17	A	0.16	A
	0.34	A	0.34	A	0.35	A	0.35	A	0.35	A	0.34	A	0.34	A
Piper Ranch Rd	0.06	A	0.08	A	0.08	A	0.06	A	0.09	A	0.08	A	0.06	A
	0.26	A	0.28	A	0.30	A	0.27	A	0.27	A	0.30	A	0.26	A
Sunroad Blvd	0.01	A	0.01	A	0.01	A	0.01	A	0.00	A	0.01	A	0.01	A
	0.13	A	0.12	A	0.17	A	0.10	A	0.10	A	0.16	A	0.13	A
Sanyo Ave	0.15	A	0.11	A	0.10	A	0.18	A	0.13	A	0.17	A	0.15	A
	0.17	A	0.11	A	0.12	A	0.20	A	0.13	A	0.20	A	0.17	A
	0.19	A	0.19	A	0.20	A	0.20	A	0.20	A	0.34	B	0.19	B
Enrico Fermi Dr	0.09	A	0.05	A	0.09	A	0.11	A	0.02	A	0.08	A	0.08	A
	0.21	A	0.02	A	0.12	A	0.24	A	0.03	A	0.07	A	0.19	A
	0.14	A	0.09	A	0.12	A	0.14	A	0.05	A	0.12	A	0.12	A
	0.02	A	0.02	A	0.01	A	0.03	A	0.03	A	0.01	A	0.02	A
Alta Rd	0.25	C	0.25	C	0.25	C	0.25	B	0.25	B	0.25	C	0.25	C
	0.01	A	0.09	A	0.01	A	0.03	A	0.11	A	0.01	A	0.01	A
	0.02	A	0.16	A	0.01	A	0.03	A	0.19	A	0.01	A	0.02	A
	0.01	A	0.04	A	0.01	A	0.03	A	0.03	A	0.01	A	0.01	A

Table 9-4
Opening Year (2015)
Intersection Capacity Analysis

Intersection	No Build				Two Interchange Alternative				One Interchange Alternative				No Interchange Alternative				No Toll / Two Interchange Design Variation				No Toll / One Interchange Design Variation				No Toll / No Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-	F	>80.0	F	>80.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and Piper Ranch Rd	B	10.8	A	6.7	B	13.5	A	8.4	B	11.8	A	8.8	B	11.2	A	8.8	B	13.0	A	9.5	B	12.3	A	9.3	A	7.7	A	7.0
Lone Star Rd and Sunroad Blvd	A	7.7	A	6.1	A	6.4	A	4.9	A	4.3	A	5.5	A	3.7	A	5.2	A	5.8	A	6.1	A	4.6	A	6.7	A	8.2	A	5.9
Lone Star Rd and Zinser Rd	A	8.7	B	10.2	B	15.8	B	12.5	B	14.6	B	13.5	B	15.6	B	14.0	A	8.8	A	7.8	A	6.5	A	5.5	A	8.1	A	7.2
Lone Star Rd and Van Center Blvd	A	6.9	A	7.7	A	6.5	A	6.7	A	5.5	A	6.8	A	6.6	A	7.0	A	6.6	A	6.9	A	8.0	A	7.6	A	7.3	A	7.9
Lone Star Rd and Enrico Fermi Dr	B	11.6	A	8.8	A	9.8	A	9.7	B	10.1	A	8.1	B	10.4	A	9.2	B	11.2	A	9.7	A	9.2	A	8.2	B	11.4	A	10.0
Lone Star Rd and Alta Rd	B	15.7	B	16.3	C	25.1	C	23.5	C	23.1	C	23.3	C	24.9	C	23.6	C	24.9	C	23.7	C	22.7	C	23.4	C	24.9	C	23.5
Lone Star Rd and Otay Mesa Rd	A	8.0	A	8.5	B	12.9	B	13.1	A	8.0	A	8.2	B	10.8	B	11.5	B	16.1	B	16.5	B	10.8	B	11.5	B	10.8	B	11.5
Lone Star Rd and Siempre Viva Rd	B	11.3	B	13.8	B	14.5	C	21.2	B	15.1	B	16.7	B	15.4	B	17.1	B	17.0	C	23.1	B	15.4	B	17.1	B	15.4	B	17.1
Zinser Rd and Piper Ranch Rd	B	10.5	B	10.4	B	14.1	B	12.8	B	12.0	B	12.4	B	12.1	B	12.6	B	12.5	B	12.3	B	13.0	B	12.9	B	14.1	B	11.3
Zinser Rd and Sunroad Blvd	B	16.3	B	19.0	C	22.5	C	24.7	C	23.4	C	25.3	C	21.1	C	25.1	C	23.4	C	25.3	C	22.6	C	24.1	C	23.4	C	25.3
Otay Mesa Rd and Britannia Blvd	B	12.1	B	13.1	B	15.4	B	15.3	B	16.5	B	16.6	B	17.8	B	17.5	B	17.6	B	16.6	B	17.6	B	16.6	B	17.4	B	17.2
Otay Mesa Rd and La Media Rd	C	21.9	B	18.8	C	22.7	C	21.6	C	24.0	C	21.3	C	25.0	C	21.0	C	24.1	C	22.4	C	24.4	C	20.2	C	26.2	C	21.0
Otay Mesa Rd and Piper Ranch Rd	C	23.0	C	20.3	C	25.9	C	24.8	C	24.5	C	21.0	C	24.2	C	27.0	C	28.9	C	25.7	C	22.9	C	28.3	C	24.4	C	27.5
Otay Mesa Rd and SR-125 SB Off Ramp	A	6.0	A	6.2	A	6.5	A	6.5	B	11.0	B	13.9	B	10.8	A	7.1	B	10.4	B	11.7	B	10.8	A	7.0	B	11.8	A	7.5
Otay Mesa Rd and SR-125 NB On Ramp	A	2.3	A	2.8	A	2.5	A	3.1	A	2.1	A	3.0	A	2.2	A	2.6	A	2.0	A	4.2	A	1.9	A	3.3	A	1.9	A	3.5
Otay Mesa Rd and Harvest Rd	B	14.0	B	12.8	B	14.0	B	14.1	B	14.3	B	13.7	B	13.0	B	14.8	B	16.1	B	17.1	B	12.5	B	13.8	B	14.3	B	15.5
Otay Mesa Rd and Sanyo Ave	B	12.2	B	13.1	B	17.4	B	19.7	B	16.9	C	20.4	C	20.9	C	21.2	C	22.5	C	20.9	B	17.0	B	17.9	C	20.5	C	21.0
Otay Mesa Rd and Van Center Blvd	A	5.6	A	5.3	A	5.2	A	5.3	A	5.3	A	5.2	A	5.8	A	5.7	A	5.7	A	6.0	A	4.9	A	5.0	A	5.9	A	6.2
Otay Mesa Rd and Enrico Fermi Dr	B	13.6	B	16.6	B	16.1	C	20.9	B	18.6	C	21.7	B	17.6	C	21.9	B	18.2	C	22.8	B	19.0	C	22.5	B	17.7	C	21.9
Otay Mesa Rd and Alta Rd	B	11.8	B	11.5	C	22.4	C	21.2	B	16.3	B	17.3	C	25.2	C	23.9	C	22.2	C	22.0	B	17.6	B	18.3	C	24.9	C	23.5
SR 905 WB Ramps and Britannia Blvd	A	7.2	A	8.0	A	8.5	A	9.9	B	11.8	A	9.0	B	10.8	A	7.3	B	10.6	A	9.1	B	10.6	A	9.1	B	12.5	A	8.6
SR 905 EB Ramps and Britannia Blvd	B	10.4	B	10.4	B	15.6	B	14.4	B	13.6	B	11.6	B	13.3	B	11.2	B	13.3	B	11.5	B	13.3	B	11.5	B	13.5	B	11.3
SR 905 WB Off Ramp and La Media Rd	A	7.9	A	8.0	B	11.4	A	9.9	A	7.5	A	7.4	A	6.5	A	7.9	A	9.4	A	8.8	A	9.0	A	8.9	A	8.2	A	8.5
SR 905 EB Ramps and La Media Rd	B	11.6	B	12.7	B	11.2	A	9.1	B	12.8	B	12.4	B	12.1	B	11.4	B	12.4	B	10.8	B	12.4	B	15.4	B	12.8	B	11.2
SR 11 and Enrico Fermi Dr	B	11.8	B	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Ramps and Enrico Fermi Dr	-	-	-	-	B	15.6	B	15.9	-	-	-	-	-	-	-	-	B	17.6	B	16.5	-	-	-	-	-	-	-	-
SR 11 WB Ramps and Enrico Fermi Dr	-	-	-	-	B	11.1	B	12.7	-	-	-	-	-	-	-	-	B	11.7	B	13.3	-	-	-	-	-	-	-	-
SR 11 Alta Rd EB Ramps	-	-	-	-	-	-	-	-	B	15.4	B	14.9	-	-	-	-	-	-	-	-	B	15.7	B	15.1	-	-	-	-
SR 11 Alta Rd WB Ramps	-	-	-	-	-	-	-	-	B	11.3	B	10.9	-	-	-	-	-	-	-	-	B	10.7	A	9.9	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	-	-	-	-	A	5.1	A	6.3	-	-	-	-	-	-	-	-	A	4.3	A	3.4	-	-	-	-	-	-	-	-
SR 11 WB On Ramp and Siempre Viva Rd	-	-	-	-	B	12.3	B	11.1	-	-	-	-	-	-	-	-	B	12.1	A	6.0	-	-	-	-	-	-	-	-
Airway Rd and Britannia Blvd	C	24.4	B	18.2	C	27.7	C	22.1	C	27.7	C	22.1	C	27.7	C	22.1	C	25.5	C	21.0	C	25.5	C	21.0	C	25.5	C	21.0
Airway Rd and La Media Rd	B	18.8	C	24.2	C	21.0	C	25.3	C	22.1	C	27.7	C	22.3	C	28.3	C	22.0	C	28.4	C	22.3	C	26.4	C	23.3	C	28.7
Airway Rd and Sanyo Ave	B	15.9	B	15.3	B	17.5	B	17.2	B	17.4	B	17.1	B	17.7	B	17.3	B	17.5	B	17.2	B	17.5	B	17.2	B	18.3	B	17.7
Airway Rd and Paseo De Las Americas	A	6.8	A	8.0	C	21.4	C	21.1	B	14.1	B	14.8	B	14.3	B	14.8	B	13.8	B	14.7	B	14.6	B	15.8	B	15.2	B	16.1
Airway Rd and Enrico Fermi Dr	B	14.4	B	15.1	C	22.5	C	21.2	C	21.0	C	21.7	C	20.7	C	21.4	C	24.3	C	26.9	C	21.3	C	21.7	C	20.7	C	21.4
Airway Rd and Alta Rd	B	13.9	B	14.1	C	32.9	C	28.3	C	22.1	C	20.5	C	28.1	C	26.4	C	31.6	C	27.6	C	20.8	B	19.4	C	28.1	C	26.4
Siempre Viva Rd and Britannia Blvd	B	16.0	B	15.0	B	19.9	B	18.3	B	19.9	B	18.3	B	19.9	B	18.3	B	19.9	B	18.3	B	19.9	B	18.3	B	19.9	B	18.3
Siempre Viva Rd and La Media Rd	B	14.9	B	15.3	C	22.2	C	21.3	C	21.9	C	21.4	C	21.9	C	21.6	C	21.9	C	21.3	C	21.7	C	21.1	C	21.9	C	21.6
Siempre Viva Rd and Otay Center Dr	C	25.7	C	24.4	C	26.4	C	28.5	C	26.1	C	26.3	C	29.3	C	29.1	C	27.0	C	29.2	C	29.0	C	29.3	C	27.4	C	29.9
Siempre Viva Rd and SR-905 SB Ramps	A	7.5	A	7.5	B	13.4	B	12.8	B	12.2	B	12.4	B	13.4	B	12.9	B	11.7	B	11.3	B	11.9	B	13.7	B	12.5	B	11.5
Siempre Viva Rd and SR-905 NB Ramps	B	11.9	B	13.0	B	13.3	B	15.0	B	14.7	B	15.9	B	14.6	B	15.1	B	13.2	B	15.5	B	13.8	B	14.5	B	13.1	B	14.1
Siempre Viva Rd and Paseo De Las Americas	C	21.3	C	24.1	C	25.9	C	25.9	C	22.2	C	27.4	C	28.1	C	28.4	C	25.7	C	26.2	C	24.6	C	24.8	C	26.3	C	27.3
Siempre Viva Rd and Enrico Fermi Dr	B	17.8	B	16.7	C	31.4	C	24.2	C	29.9	C	28.4	C	24.9	C	22.9	C	29.3	C	30.3	C	22.1	C	22.0	C	25.6	C	22.9
Siempre Viva Rd and Alta Rd	B	14.6	B	14.1	C	22.3	C	20.9	C	25.7	C	23.3	C	24.8	C	24.0	C	23.5	C	24.0	C	22.4	C	23.9	C	23.3	C	24.0
Siempre Viva Rd and Airway Rd	B	15.9	B	15.6	C	25.0	C	24.9	C	27.9	C	25.6	C	27.9	C	25.6	C	27.9	C	21.7	C	27.9	C	25.6	C	27.9	C	25.6

LOS = Level of Service

Table 9-4 (continued)
Opening Year (2015)
Intersection Capacity Analysis

Intersection	SR-125 Connector / Two Interchange Design Variation				SR-125 Connector / One Interchange Design Variation				SR-125 Connector / No Interchange Design Variation				Full Interchange / Two Interchange Design Variation				Full Interchange / One Interchange Design Variation				Full Interchange / No Interchange Design Variation				Siempre Viva Rd / Full Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and SR-125 SB Ramps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and SR-125 NB Ramps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lone Star Rd and Piper Ranch Rd	A	8.4	A	7.1	A	9.9	A	6.5	B	10.3	A	6.7	B	13.1	A	9.2	B	10.4	A	6.5	B	10.4	A	6.5	A	7.5	A	6.5
Lone Star Rd and Sunroad Blvd	A	3.3	A	6.1	A	4.6	A	8.3	A	3.5	A	8.4	A	6.4	A	5.5	A	6.4	A	9.3	A	6.4	A	9.3	A	6.1	A	6.7
Lone Star Rd and Zinser Rd	B	11.4	B	12.8	B	11.8	B	14.9	B	12.6	B	15.0	C	20.9	B	13.8	B	11.3	B	14.3	B	11.3	B	14.3	A	8.0	A	9.1
Lone Star Rd and Van Center Blvd	A	7.4	A	7.6	A	8.1	A	7.7	A	7.8	A	7.7	A	5.4	A	6.4	A	7.1	A	7.2	A	7.1	A	7.2	A	7.0	A	7.4
Lone Star Rd and Enrico Fermi Dr	B	10.7	A	8.4	A	9.6	A	7.7	B	11.8	A	8.9	A	9.3	B	10.1	B	11.6	A	8.8	B	11.6	A	8.8	B	10.7	A	8.9
Lone Star Rd and Alta Rd	B	16.2	B	16.3	B	15.6	B	16.8	B	17.0	B	17.0	B	17.1	C	24.7	B	15.7	B	16.3	B	15.7	B	16.3	B	16.0	B	16.0
Lone Star Rd and Otay Mesa Rd	A	7.7	A	9.7	A	8.0	A	8.5	-	-	-	-	B	13.4	B	17.9	A	8.0	A	8.5	A	8.0	A	8.5	A	7.8	A	8.2
Lone Star Rd and Siempre Viva Rd	B	11.2	B	12.8	B	10.2	B	13.8	-	-	-	-	B	18.4	C	22.4	B	10.2	B	13.8	B	10.2	B	13.8	B	12.6	B	10.4
Zinser Rd and Piper Ranch Rd	B	10.2	B	10.4	B	10.2	B	13.7	-	-	-	-	B	11.9	B	12.3	A	9.9	B	10.7	A	9.9	B	10.7	B	10.2	B	10.5
Zinser Rd and Sunroad Blvd	B	15.6	B	17.5	B	16.3	B	19.1	B	12.5	B	12.6	B	16.3	C	25.3	B	16.3	B	19.5	B	16.3	B	19.5	B	14.9	B	15.6
Otay Mesa Rd and Britannia Blvd	B	12.0	B	13.3	B	12.3	B	13.2	A	8.8	B	10.1	B	16.7	B	16.6	B	12.4	B	13.3	B	12.4	B	13.3	B	13.3	B	13.7
Otay Mesa Rd and La Media Rd	C	23.2	B	18.9	C	23.1	B	19.0	B	10.0	B	10.9	C	23.9	C	21.3	C	23.9	B	19.5	C	23.9	B	19.5	C	21.8	B	19.3
Otay Mesa Rd and Piper Ranch Rd	C	23.2	C	21.3	C	22.8	C	21.6	B	16.2	B	19.6	C	24.0	B	19.2	C	23.8	C	20.3	C	23.8	C	20.3	C	21.6	B	19.3
Otay Mesa Rd and SR-125 SB Off Ramp	A	8.5	B	13.6	B	10.5	B	11.7	B	12.6	B	13.5	A	9.7	B	12.4	A	5.8	A	6.2	A	5.8	A	6.2	A	9.0	A	9.1
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	2.5	A	1.4	A	2.8	C	24.3	B	19.4	A	3.0	A	3.7	A	2.4	A	2.9	A	2.4	A	2.9	A	2.7	A	3.7
Otay Mesa Rd and Harvest Rd	B	12.4	B	11.2	B	13.4	B	12.6	C	25.1	C	24.3	B	12.8	B	12.9	B	14.9	B	13.2	B	14.9	B	13.2	B	14.5	B	14.2
Otay Mesa Rd and Sanyo Ave	B	13.3	B	13.0	B	12.2	B	13.1	A	9.3	A	6.7	C	20.6	C	21.5	B	12.9	B	13.9	B	12.9	B	13.9	B	13.3	B	13.0
Otay Mesa Rd and Van Center Blvd	A	6.0	A	5.2	A	5.1	A	5.2	A	1.9	A	2.4	A	5.4	A	5.8	A	5.5	A	5.4	A	5.5	A	5.4	A	5.2	A	5.3
Otay Mesa Rd and Enrico Fermi Dr	B	13.5	B	16.5	B	14.2	B	18.2	B	13.8	B	13.3	B	18.0	C	21.0	B	13.8	B	16.9	B	13.8	B	16.9	B	13.7	B	16.8
Otay Mesa Rd and Alta Rd	B	11.8	B	11.4	B	13.0	B	13.8	B	13.0	B	11.6	B	18.5	C	21.3	B	10.9	B	10.7	B	10.9	B	10.7	B	11.7	B	10.5
SR 905 WB Ramps and Britannia Blvd	A	7.5	A	8.3	A	6.1	A	8.1	A	8.6	A	8.0	B	11.3	A	8.8	A	7.5	A	8.2	A	7.5	A	8.2	A	6.3	A	7.9
SR 905 EB Ramps and Britannia Blvd	B	10.3	B	10.7	B	11.6	B	10.5	B	13.5	B	10.8	B	14.1	B	11.5	B	10.3	B	10.8	B	10.3	B	10.8	B	9.5	B	10.1
SR 905 WB Off Ramp and La Media Rd	A	5.6	A	5.7	A	6.7	A	6.4	B	15.8	B	16.9	A	7.3	A	7.9	A	6.7	A	6.3	A	6.7	A	6.3	A	6.9	A	7.8
SR 905 EB Ramps and La Media Rd	B	10.2	B	11.5	B	11.9	B	10.6	A	6.1	A	8.4	B	12.7	B	12.5	B	11.1	B	10.4	B	11.1	B	10.4	A	8.1	B	11.1
SR 11 and Enrico Fermi Dr	-	-	-	-	-	-	-	-	B	10.8	B	10.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Ramps and Enrico Fermi Dr	B	12.3	B	13.1	-	-	-	-	A	5.2	A	5.0	B	12.3	B	13.4	-	-	-	-	-	-	-	-	B	11.4	B	12.0
SR 11 WB Ramps and Enrico Fermi Dr	B	11.8	B	12.7	-	-	-	-	B	10.0	A	9.9	B	15.6	B	14.4	-	-	-	-	-	-	-	-	B	10.8	B	11.8
SR 11 Alta Rd EB Ramps	-	-	-	-	B	13.0	B	12.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 Alta Rd WB Ramps	-	-	-	-	B	14.0	B	11.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	A	1.9	A	5.4	-	-	-	-	-	-	-	-	A	6.8	A	4.8	-	-	-	-	-	-	-	-	C	22.1	B	14.5
SR 11 WB On Ramp and Siempre Viva Rd	B	10.5	A	8.0	-	-	-	-	-	-	-	-	A	7.0	B	12.1	-	-	-	-	-	-	-	-	B	11.0	B	10.7
Airway Rd and Britannia Blvd	C	24.5	B	18.2	C	24.5	B	18.2	C	21.0	B	16.9	C	27.7	C	22.1	C	21.0	B	16.9	C	21.0	B	16.9	C	23.2	B	17.5
Airway Rd and La Media Rd	B	18.9	C	25.0	B	19.4	C	24.7	B	19.7	C	26.2	C	21.6	C	25.7	B	18.7	C	25.6	B	18.7	C	25.6	B	17.7	C	23.7
Airway Rd and Sanyo Ave	B	16.3	B	15.9	B	16.2	B	15.9	B	16.6	B	16.0	B	17.7	B	17.2	B	16.4	B	15.9	B	16.4	B	15.9	B	15.9	B	15.3
Airway Rd and Paseo De Las Americas	A	6.9	A	8.1	A	6.9	A	8.1	A	6.9	B	11.5	A	8.0	C	20.5	A	7.8	A	8.6	A	7.8	A	8.6	A	6.8	A	7.9
Airway Rd and Enrico Fermi Dr	B	15.7	B	16.0	B	15.0	B	15.7	B	15.2	C	22.6	B	16.8	B	19.4	C	23.0	C	23.6	C	23.0	C	23.6	B	15.5	B	15.7
Airway Rd and Alta Rd	B	13.8	B	14.0	B	14.8	B	13.6	B	15.3	B	15.3	B	18.7	C	26.0	B	14.6	B	13.8	B	14.6	B	13.8	B	14.6	B	13.8
Siempre Viva Rd and Britannia Blvd	B	16.0	B	15.0	B	16.0	B	15.0	B	16.2	B	15.2	B	19.9	B	18.3	B	15.2	B	14.7	B	15.2	B	14.7	B	15.6	B	14.7
Siempre Viva Rd and La Media Rd	B	15.2	B	15.0	B	14.9	B	15.2	B	16.3	B	15.8	C	21.9	C	21.6	B	15.6	B	18.0	B	15.6	B	18.0	B	14.7	B	14.9
Siempre Viva Rd and Otay Center Dr	C	25.3	C	25.2	C	27.6	C	25.3	B	15.7	C	26.8	C	26.6	C	30.0	C	22.7	C	21.7	C	22.7	C	21.7	C	24.8	C	24.0
Siempre Viva Rd and SR-905 SB Ramps	A	7.3	A	7.5	A	6.2	A	7.2	A	6.3	A	6.0	B	13.1	B	11.7	A	7.9	A	9.0	A	7.9	A	9.0	A	6.0	A	7.7
Siempre Viva Rd and SR-905 NB Ramps	A	9.6	B	11.6	B	12.4	B	13.7	A	9.9	A	7.7	B	12.6	B	13.1	B	10.0	B	10.4	B	10.0	B	10.4	B	10.1	B	11.0
Siempre Viva Rd and Paseo De Las Americas	C	22.4	C	23.5	C	24.6	C	26.1	C	24.4	D	52.0	C	25.0	C	25.7	C	24.0	C	25.5	C	24.0	C	25.5	C	22.7	C	25.0
Siempre Viva Rd and Enrico Fermi Dr	B	19.4	B	19.0	B	19.4	B	19.0	C	20.2	B	19.5	C	29.0	C	31.0	C	20.2	B	19.6	C	20.2	B	19.6	C	21.4	B	24.7
Siempre Viva Rd and Alta Rd	B	14.6	B	14.2	B	14.1	B	14.8	C	29.8	C	29.8	B	17.2	B	19.2	B	14.6	B	14.1	B	14.6	B	14.1	B	16.3	B	16.1
Siempre Viva Rd and Airway Rd	B	15.9	B	15.4	B	15.9	B	15.4	B	16.6	B	16.6	C	23.0	C	23.3	B	15.6	B	15.5	B	15.6	B	15.5	B	17.0	B	14.0

LOS = Level of Service

Table 9-5
Horizon Year (2035)
SR-11 Capacity Analysis

Intersection	Two Interchange Alternative				One Interchange Alternative				No Interchange Alternative				No Toll / Two Interchange Design Variation				No Toll / One Interchange Design Variation				No Toll / No Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound																								
Alta Rd Off Ramp	-	-	-	-	C	20.5	C	21.6	-	-	-	-	-	-	-	-	C (3)	22.0 (3)	C (3)	23.7 (3)	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B	16.4	C	21.5	-	-	-	-	-	-	-	-	C (3)	22.3 (3)	C (3)	26.8 (3)	-	-	-	-
Alta Rd On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	14.6	B	18.0	-	-	-	-
Alta Road On Ramp to Passenger Car Off Ramp	-	-	-	-	B	13.7	C	20.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	B (3)	14.7 (3)	B (3)	15.7 (3)	-	-	-	-	-	-	-	-	B (3)	19.0 (3)	C (3)	20.3 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp	C (3)	22.3 (3)	C (3)	26.8 (3)	-	-	-	-	-	-	-	-	D (3)	28.5 (3)	D (3)	33.4 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	B	14.6	B	18.0	-	-	-	-	-	-	-	-	C	19.1	C	21.8	-	-	-	-	-	-	-	-
Passenger Car Off Ramp	-	-	-	-	A	6.2	B	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd and Passenger Car Off Ramp	A (3)	6.2 (3)	B (3)	11.7 (3)	-	-	-	-	-	-	-	-	A (3)	6.2 (3)	B (3)	11.7 (3)	A (3)	6.2 (3)	B (3)	11.7 (3)	-	-	-	-
Siempre Viva Rd Off Ramp	B (3)	12.3 (3)	C (3)	26.2 (3)	-	-	-	-	-	-	-	-	B (3)	18.9 (3)	C (3)	24.3 (3)	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Auto's Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	12.7	B	17.9	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	1.9	A	1.7	-	-	-	-	-	-	-	-	A	1.9	A	1.7	-	-	-	-
South of Alta Rd (Passenger Cars only)	-	-	-	-	B	12.7	B	17.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	B	12.7	B	17.9	-	-	-	-	B	13.6	C	19.3	B	12.7	B	17.9	-	-	-	-	B	15.8	C	22.4
South of Siempre Viva Rd (Commercial Only)	A	1.9	A	1.7	-	-	-	-	A	1.9	A	1.7	A	1.9	A	1.7	-	-	-	-	A	2.2	A	2.0
SR-905 On Ramp to SR-125 On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 On Ramp to Alta Rd Off Ramp	-	-	-	-	C	20.8	C	21.9	-	-	-	-	-	-	-	-	C	22.3	C	23.9	-	-	-	-
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	B	17.8	B	16.3	-	-	-	-	-	-	-	-	C	18.4	C	19.3	-	-	-	-	-	-	-	-
SR-125 On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	B	15.4	C	21.0	-	-	-	-	-	-	-	-	B	17.9	C	24.3
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound																								
Alta Rd Off Ramp	-	-	-	-	B	14.0	C	21.1	-	-	-	-	-	-	-	-	B	17.3	B	15.6	-	-	-	-
Alta Rd On Ramp	-	-	-	-	C	24.8	C	27.0	-	-	-	-	-	-	-	-	D	31.0	D	34.0	-	-	-	-
Alta Rd On Ramp to SR-125 Off Ramp	-	-	-	-	C	22.8	C	25.3	-	-	-	-	-	-	-	-	D	32.9	E	38.2	-	-	-	-
Enrico Fermi Rd On Ramp to SR-125 Off Ramp	C	20.7	C	23.6	-	-	-	-	-	-	-	-	C	20.7	C	23.6	-	-	-	-	-	-	-	-
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	B (3)	11.7 (3)	B (3)	12.3 (3)	-	-	-	-	-	-	-	-	B (3)	18 (3)	B (3)	19.6 (3)	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp	D (3)	30.5 (3)	D (3)	34.4 (3)	-	-	-	-	-	-	-	-	E (3)	35.8 (3)	F (3)	40.4 (3)	-	-	-	-	-	-	-	-
Passenger Car On Ramp	-	-	-	-	C	25.0	C	22.9	-	-	-	-	-	-	-	-	D	28.5	C	26.1	-	-	-	-
Passenger Car On Ramp to Alta Rd Off Ramp	-	-	-	-	C	26.1	C	23.0	-	-	-	-	-	-	-	-	C	27.7	C	24.3	-	-	-	-
Siempre Viva Rd On Ramp	C	27.9	C	27.7	-	-	-	-	-	-	-	-	C	24.2	C	25.7	-	-	-	-	-	-	-	-
Siempre Viva Rd to Alta Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	C	20.2	C	19.9	-	-	-	-	-	-	-	-	C	24.9	C	25.3	-	-	-	-	-	-	-	-
Siempre Viva Rd to SR-125 Off Ramp	-	-	-	-	-	-	-	-	C	25.3	C	23.0	-	-	-	-	-	-	-	-	D	29.3	D	26.6
South of Alta Rd (Auto's Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	24.6	C	22.3	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	2.4	A	2.1	-	-	-	-	-	-	-	-	A	3.1	A	2.8	-	-	-	-
South of Alta Rd (Passenger Cars Only)	-	-	-	-	C	19.0	B	17.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	C	21.3	C	19.3	-	-	-	-	C	22.9	C	20.8	C	24.6	C	22.3	-	-	-	-	D	26.5	C	24.0
South of Siempre Viva Rd (Commercial Only)	A	2.5	A	2.3	-	-	-	-	A	2.5	A	2.3	A	2.9	A	2.7	-	-	-	-	A	2.9	A	2.7
SR-905 Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 Off Ramp	C (3)	25.9 (3)	D (3)	28.3 (3)	C	20.1	C	20.9	C	24.9	C	22.6	C (3)	24 (3)	C (3)	25.7 (3)	C	24.9	C	25.9	D	28.5	C	25.9

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 9-5 (continued)
Horizon Year (2035)
SR-11 Capacity Analysis

Intersection	SR-125 Connector / Two Interchange Design Variation				SR-125 Connector / One Interchange Design Variation				SR-125 Connector / No Interchange Design Variation				Full Interchange / Two Interchange Design Variation				Full Interchange / One Interchange Design Variation				Full Interchange / No Interchange Design Variation				Full Interchange / No Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)	LOS (1)	Density (2)
Eastbound																												
Alta Rd Off Ramp	-	-	-	-	A	6.3	A	8.7	-	-	-	-	-	-	-	-	B (3)	17.5 (3)	B (3)	18.3 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp	-	-	-	-	B	17.1	C	22.3	-	-	-	-	-	-	-	-	B (3)	16.3 (3)	C (3)	21.3 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp to Siempre Viva Rd													-	-	-	-	B	14.6	B	18.0								
Alta Road On Ramp to Passenger Car Off Ramp	-	-	-	-	B	13.7	C	20.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	A (3)	5 (3)	A (3)	6.9 (3)	-	-	-	-	-	-	-	-	C (3)	24.4 (3)	C (3)	24.8 (3)	-	-	-	-	-	-	-	-	A (3)	8.4 (3)	B (3)	15.4 (3)
Enrico Fermi Rd On Ramp	C (3)	23.1 (3)	C (3)	27.5 (3)	-	-	-	-	-	-	-	-	C (3)	26.8 (3)	D (3)	31.9 (3)	-	-	-	-	-	-	-	-	B (3)	16.8 (3)	B (3)	19.3 (3)
Enrico Fermi Rd On Ramp to Siempre Viva Rd Off Ramp	B	15.2	C	18.5	-	-	-	-	-	-	-	-	C	18.7	C	21.6	-	-	-	-	-	-	-	-	A	10.5	B	12.3
Passenger Car Off Ramp	-	-	-	-	A	6.0	B	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd and Passenger Car Off Ramp	A (3)	6.2 (3)	B (3)	11.7 (3)	-	-	-	-	-	-	-	-	A (3)	6.2 (3)	B (3)	11.7 (3)	A (3)	6.2 (3)	B (3)	11.7 (3)	-	-	-	-	A (3)	6.2 (3)	A (3)	8.9 (3)
Siempre Viva Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	B (3)	18.2 (3)	C (3)	22.5 (3)	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	16.6	C (3)	21.7
South of Alta Rd (Auto's Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	1.8	A	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Passenger Cars only)	-	-	-	-	B	11.3	B	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	B	12.7	B	17.9	-	-	-	-	B	13.6	C	19.3	B	12.7	B	17.9	B	12.7	B	17.9	B	13.5	C	19.1	B	12.7	A	17.9
South of Siempre Viva Rd (Commercial Only)	A	1.9	A	1.7	-	-	-	-	A	1.9	A	1.7	A	1.9	A	1.7	A	1.9	A	1.7	A	1.9	A	1.7	A	1.9	A	1.7
SR-905 On Ramp to SR-125 On Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR-125 On Ramp	C(3)	26.8(3)	C(3)	27.4(3)	C	20.3	C	21.4	B	15.9	C	20.9	D	32.4	D	32.8	B	19.3	B	19.5	B	15.8	C	20.8	C (3)	24.1 (3)	C (3)	24.4 (3)
SR-125 On Ramp to Alta Rd Off Ramp	-	-	-	-	C	18.1	C	19.1	-	-	-	-	-	-	-	-	D	26.8	D	27.7	-	-	-	-	-	-	-	-
SR-125 On Ramp to Enrico Fermi Rd Off Ramp	B	17.8	C	18.3	-	-	-	-	-	-	-	-	C	21.9	C22.2	32.8	-	-	-	-	-	-	-	-	B	15.8	B	16.1
SR-125 On Ramp to Siempre Viva Rd	-	-	-	-	-	-	-	-	B	15.4	C	21.0	-	-	-	-	-	-	-	-	B	15.3	C	20.7				
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound																												
Alta Rd Off Ramp	-	-	-	-	B	14.0	C	21.1	-	-	-	-	-	-	-	-	B (3)	15.8 (3)	B (3)	13.5 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp	-	-	-	-	C	24.8	C	27.0	-	-	-	-	-	-	-	-	D (3)	29.8 (3)	D (3)	33.4 (3)	-	-	-	-	-	-	-	-
Alta Rd On Ramp to SR-125 Off Ramp	-	-	-	-	C	22.8	C	25.3	-	-	-	-	-	-	-	-	C	20.4	C	23.1	-	-	-	-	-	-	-	-
Enrico Fermi Rd On Ramp to SR-125 Off Ramp	C	20.7	C	23.6	-	-	-	-	-	-	-	-	C	24.1	D	28.1	-	-	-	-	-	-	-	-	C	18.6	C	21.3
West of Enrico Fermi Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enrico Fermi Rd Off Ramp	B (3)	11.7 (3)	B (3)	12.3 (3)	-	-	-	-	-	-	-	-	C (3)	25.8 (3)	C (3)	27.0 (3)	-	-	-	-	-	-	-	-	B (3)	13.4 (3)	B (3)	13.6 (3)
Enrico Fermi Rd On Ramp	D (3)	30.5 (3)	D (3)	34.4 (3)	-	-	-	-	-	-	-	-	E (3)	35.3 (3)	F (3)	40.7 (3)	-	-	-	-	-	-	-	-	C (3)	27.7 (3)	D (3)	31.3 (3)
Passenger Car On Ramp	-	-	-	-	C	25.0	C	22.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Passenger Car On Ramp to Alta Rd Off Ramp	-	-	-	-	C	26.1	C	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siempre Viva Rd On Ramp	C	27.9	C	27.7	-	-	-	-	-	-	-	-	C	24.3	C	26.1	-	-	-	-	-	-	-	-	B	16.2	B	16.9
Siempre Viva Rd to Alta Rd Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	20.2	C	19.9	-	-	-	-	-	-	-	-
Siempre Viva Rd to Enrico Fermi Rd Off Ramp	C	20.2	C	19.9	-	-	-	-	-	-	-	-	C	22.8	C	23.6	-	-	-	-	-	-	-	-	B	14.7	B	14.9
Siempre Viva Rd to SR-125 Off Ramp	-	-	-	-	-	-	-	-	C	25.3	C	23.0	-	-	-	-	-	-	-	-	C	25.1	C	22.8				
South of Alta Rd (Auto's Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Commercial Only)	-	-	-	-	A	2.4	A	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Alta Rd (Passenger Cars Only)	-	-	-	-	C	19.0	B	17.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South of Siempre Viva Rd (Auto's Only)	C	21.3	C	19.3	-	-	-	-	C	22.9	C	20.8	C	21.3	C	19.3	C	21.3	C	19.3	C	22.7	C	20.6	C	21.3	C	19.3
South of Siempre Viva Rd (Commercial Only)	A	2.5	A	2.3	-	-	-	-	A	2.5	A	2.3	A	2.5	A	2.3	A	2.5	A	2.3	A	2.5	A	2.3	A	2.5	A	2.3
SR-905 Off Ramp	-	-	-	-	-	-	-	-	-	-	-	-	D (3)	30.1 (3)	D (3)	33.8 (3)	C (3)	24.4 (3)	C (3)	26.3 (3)	-	-	-	-	-	-	-	-
SR-125 Off Ramp	C (3)	25.9 (3)	D (3)	28.3 (3)	C	20.1	C	20.9	C	24.9	C	22.6	E (3)	36.8 (3)	F (3)	42.9 (3)	D (3)	31.0 (3)	E (3)	35.3 (3)	C	24.7	C	22.5	D (3)	28.3 (3)	D (3)	32.5 (3)

(1) LOS = Level of Service
(2) Density is expressed in passenger cars/mile per lane
(3) Highway Capacity Manual procedures do not fully address the proposed design concept. The results shown are a conservative estimate of expected traffic operations.

Table 9-6
Horizon Year (2035)
Freeway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
SR-125	North of Lone Star Rd	0.92	D	0.92	E	0.92	E	0.97	E	0.95	E	0.95	E	0.97	E
	Lone Star Rd to Otay Mesa Rd	0.68	C	0.68	C	0.68	C	0.79	D	0.72	C	0.74	C	0.80	D
SR-905	I-5 to I-805	1.02	F	1.04	F	1.04	F	1.04	F	1.04	F	1.03	F	1.04	F
	I-805 to Otay Mesa Rd	1.55	F	1.56	F	1.54	F	1.55	F	1.56	F	1.54	F	1.57	F
	Otay Mesa Rd to Britannia Blvd	1.44	F	1.37	F	1.35	F	1.45	F	1.47	F	1.44	F	1.35	F
	Britannia Blvd to La Media Rd	1.18	F	1.23	F	1.19	F	1.24	F	1.26	F	1.23	F	1.22	F
	SR 125/ SR 11 to Sempre Viva Road	0.84	D	0.70	C	0.77	C	0.89	D	0.66	C	0.70	C	0.88	D
	Siempre Viva Rd to International Border (1)	0.81	D	0.71	C	0.71	C	0.71	C	0.69	C	0.69	C	0.69	C
I-5	North of SR 905	1.16	F	1.12	F	1.12	F	1.11	F	1.11	F	1.11	F	1.11	F
	SR-905 to I-805	1.18	F	0.52	B	0.52	B	0.52	B	0.51	B	0.51	B	0.51	B
	I-805 to International Border (1)	0.81	D	0.63	C	0.63	C	0.63	C	0.61	B	0.61	B	0.61	B
I-805	North of SR-905	0.85	D	1.48	F	1.48	F	1.47	F	1.45	F	1.45	F	1.46	F
	SR-905 to I-5	0.56	B	0.83	D	0.82	D	0.82	D	0.80	D	0.80	D	0.79	D

(1) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-6 (continued)
Horizon Year (2035)
Freeway Segment Capacity Analysis

ROUTE	LIMITS	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
SR-125	North of Lone Star Rd	0.95	E	0.95	E	0.99	E	0.98	E	0.97	E	0.98	E	0.94	E
	Lone Star Rd to Otay Mesa Rd	0.72	C	0.72	C	0.83	D	0.74	C	0.77	C	0.80	D	0.70	C
SR-905	I-5 to I-805	1.03	F	1.03	F	1.00	F	1.03	F	1.03	F	1.03	F	1.02	F
	I-805 to Otay Mesa Rd	1.54	F	1.52	F	1.55	F	1.55	F	1.53	F	1.54	F	1.52	F
	Otay Mesa Rd to Britannia Blvd	1.44	F	1.41	F	1.44	F	1.46	F	1.43	F	1.42	F	1.33	F
	Britannia Blvd to La Media Rd	1.21	F	1.17	F	1.19	F	1.24	F	1.20	F	1.16	F	1.18	F
	SR 125/ SR 11 to Sempre Viva Road	0.68	C	0.75	C	0.89	D	0.69	C	0.72	C	0.92	D	0.58	B
	Siempre Viva Rd to International Border (1)	0.71	C	0.71	C	0.71	C	0.71	C	0.71	C	0.71	C	0.43	B
I-5	North of SR 905	1.16	F	1.16	F	1.16	F	1.11	F	1.11	F	1.16	F	1.11	F
	SR-905 to I-805	1.19	F	1.19	F	1.19	F	0.52	B	0.52	B	1.18	F	0.52	B
	I-805 to International Border (1)	0.63	C	0.63	C	0.68	C	0.63	C	0.63	C	0.68	C	0.63	C
I-805	North of SR-905	0.81	D	0.80	D	0.81	D	1.47	F	1.46	F	0.80	D	1.47	F
	SR-905 to I-5	0.49	B	0.49	B	0.49	B	0.83	D	0.86	D	0.49	B	0.86	D

(1) The capacity analysis shown in this table represents the physical capacity of the roadway, but traffic operations near the international border are controlled by capacity constraints related to border crossing operations.

ADT = Average Daily Traffic
V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-7
Horizon Year (2035)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Lone Star Rd	SR-125 to Sunroad Blvd	1.01	F	0.98	E	1.00	E	1.12	F	0.94	E	0.95	E	1.13	F
	Sunroad Blvd to Enrico Fermi Dr	0.82	D	0.79	C	0.88	D	1.03	F	0.78	C	0.84	D	1.03	F
	Enrico Fermi Dr to Alta Rd	0.50	B	0.48	B	0.45	B	0.54	B	0.46	B	0.41	B	0.54	B
	Alta Rd to Otay Mesa Rd	0.20	A	0.18	A	0.16	A	0.18	A	0.16	A	0.16	A	0.19	A
	Otay Mesa Rd to Siempre Viva Rd	0.10	A	0.14	A	0.10	A	0.12	A	0.30	A	0.11	A	0.11	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	0.62	B	0.56	B	0.61	B	0.73	C	0.53	B	0.58	B	0.73	C
Otay Mesa Rd	Britannia Blvd to La Media Rd	0.64	C	0.62	C	0.63	C	0.66	C	0.58	C	0.60	C	0.66	C
	La Media Rd to SR-125	0.76	C	0.69	C	0.59	C	0.34	A	0.68	C	0.73	C	0.63	C
	SR-125 to Sun Road Blvd	0.29	A	0.45	A	0.52	A	0.34	A	0.29	A	0.28	A	0.38	B
	Sun Road Blvd to Enrico Fermi Dr	0.22	A	0.21	A	0.22	A	0.30	B	0.19	A	0.21	A	0.33	B
	Enrico Fermi Dr to Alta Rd	0.33	A	0.27	A	0.28	A	0.21	A	0.24	A	0.32	A	0.22	A
	Alta Rd to Lone Star Rd	0.04	A	0.03	A	0.11	A	0.06	A	0.03	A	0.11	A	0.05	A
Airway Rd	Britannia Blvd to La Media Rd	0.52	B	0.47	B	0.51	B	0.56	C	0.50	B	0.50	B	0.55	C
	La Media Rd to SR 905	0.49	B	0.43	B	0.45	B	0.64	C	0.43	B	0.43	B	0.65	C
	SR 905 to Paseo De Las Americas	0.12	A	0.25	A	0.28	A	0.22	A	0.10	A	0.10	A	0.23	A
	Paseo de las Americas to Enrico Fermi Dr	0.25	A	0.23	A	0.26	A	0.51	B	0.27	A	0.27	A	0.51	B
	Enrico Fermi Dr to Alta Rd	0.29	A	0.25	A	0.21	A	0.29	A	0.22	A	0.22	A	0.30	A
	Alta Rd to Siempre Viva Rd	0.22	A	0.15	A	0.45	B	0.15	A	0.16	A	0.51	A	0.14	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	0.28	A	0.27	A	0.27	A	0.31	A	0.27	A	0.27	A	0.32	A
	La Media Rd to Otay Center Dr	0.32	A	0.30	A	0.31	A	0.36	A	0.30	A	0.30	A	0.37	A
	Otay Center Dr to SR 905	0.30	A	0.30	A	0.30	A	0.31	A	0.17	A	0.17	A	0.17	A
	SR-905 to Paseo De Las Americas	1.05	F	0.91	D	1.01	F	1.31	F	0.83	C	0.90	D	1.25	F
	Paseo De Las Americas to Enrico Fermi Dr	0.43	B	0.36	A	0.39	A	0.63	C	0.29	A	0.35	A	0.63	C
	Enrico Fermi Dr to Alta Rd	0.45	B	0.34	A	0.36	A	0.49	B	0.32	A	0.27	A	0.49	B
	Alta Rd to Airway Rd	0.01	A	0.32	A	0.36	A	0.24	A	0.24	A	0.03	A	0.03	A
	Airway Rd to SR-11	0.10	A	0.31	A	0.10	A	0.12	A	0.38	A	0.08	A	0.11	A
	SR-11 to Lone Star Rd	0.10	A	0.13	A	0.10	A	0.12	A	0.28	A	0.08	A	0.11	A

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 9-7 (continued)
Horizon Year (2035)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	No Build		Two Interchagne Alternative		One Interchange Alternative		No Interchange Alternative		No Toll / Two Interchange Design Variation		No Toll / One Interchange Design Variation		No Toll / No Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Brittania Blvd	Otay Mesa Rd to SR-905	0.45	B	0.46	B	0.47	B	0.49	B	0.45	B	0.45	B	0.50	B
	SR-905 to Airway Rd	0.57	C	0.56	C	0.57	C	0.63	C	0.58	C	0.58	C	0.63	C
	Airway Rd to Siempre Viva Rd	0.40	B	0.40	B	0.40	B	0.44	B	0.40	B	0.35	A	0.45	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	0.69	C	0.68	C	0.68	C	0.71	C	0.70	C	0.68	C	0.75	C
	Otay Mesa Rd to SR-905	0.62	C	0.60	C	0.64	C	0.75	C	0.62	C	0.67	C	0.78	C
	SR-905 to Airway Rd	0.50	B	0.32	B	0.33	B	0.57	C	0.48	B	0.48	B	0.58	C
	Airway Rd to Siempre Viva Rd	0.53	C	0.52	B	0.52	B	0.54	C	0.50	B	0.53	C	0.55	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	0.25	A	0.21	A	0.21	A	0.29	A	0.20	A	0.20	A	0.29	A
	Zinzer Rd to Otay Mesa Rd	0.58	C	0.55	C	0.61	C	0.66	C	0.53	C	0.57	C	0.63	C
	Otay Mesa Rd to Airway Rd	-	-	-	-	-	-	0.47	C	0.50	C	-	-	-	-
Sunroad Blvd	Lone Star Rd to Zinser Rd	0.20	A	0.20	A	0.22	A	0.18	A	0.20	A	0.20	A	0.18	A
	Zinser Rd to Otay Mesa Rd	0.86	E	0.85	E	0.79	D	0.82	D	0.80	D	0.77	D	0.80	D
Sanyo Ave	Otay Mesa Rd to Airway Rd	0.54	C	0.45	B	0.56	B	0.82	D	0.70	D	0.70	D	0.80	D
	Airway Rd to Paseo De Las Americas	0.39	B	0.31	B	0.31	B	0.35	B	0.40	B	-	-	0.33	B
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	0.36	A	0.66	B	0.51	B	0.16	A	0.44	E	0.26	C	0.16	A
	Otay Mesa Rd to SR - 905	0.91	E	1.20	F	0.34	A	0.38	A	1.11	F	0.27	A	0.54	B
	SR-905 to Siempre Viva Rd	0.38	A	0.48	B	0.14	A	0.20	A	0.37	B	0.14	A	0.22	A
	South of Siempre Viva Rd	0.04	A	0.05	A	0.06	A	0.06	A	0.05	A	-	-	0.06	A
Alta Rd	North of Lone Star Rd	0.73	E	0.73	E	0.73	E	0.73	E	0.74	E	0.74	E	0.74	E
	Lone Star Rd to Otay Mesa Rd	0.24	A	0.24	A	0.40	A	0.21	A	0.19	A	0.49	B	0.22	A
	Otay Mesa Rd to Airway Rd	0.23	A	0.19	A	0.96	E	0.22	A	0.14	A	0.91	E	0.24	A
	Airway Rd to Siempre Viva Rd	0.01	A	0.04	A	0.33	A	0.05	A	0.03	A	0.11	A	0.05	A

V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-7 (continued)
Horizon Year (2035)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Lone Star Rd	SR-125 to Sunroad Blvd	0.54	C	0.55	C	1.16	F	0.90	E	0.78	D	1.14	F	0.95	E
	Sunroad Blvd to Enrico Fermi Dr	0.95	E	0.97	E	1.05	F	0.81	D	0.51	B	1.03	F	0.77	C
	Enrico Fermi Dr to Alta Rd	0.81	D	0.86	D	0.55	B	0.46	B	0.38	A	0.54	B	0.45	B
	Alta Rd to Otay Mesa Rd	0.48	B	0.42	B	0.18	A	0.16	A	0.19	A	0.17	A	0.25	A
	Otay Mesa Rd to Siempre Viva Rd	0.18	A	0.16	A	0.11	A	0.32	A	0.11	A	0.11	A	0.32	A
Zinser Rd	Piper Ranch Rd to Sunroad Blvd	0.14	A	0.10	A	0.74	-	0.53	B	0.58	B	0.73	-	0.56	B
Otay Mesa Rd	Britannia Blvd to La Media Rd	0.62	C	0.63	C	0.69	C	0.60	C	0.62	C	0.67	C	0.62	C
	La Media Rd to SR-125	0.69	C	0.59	C	0.88	D	0.68	C	0.58	C	0.89	D	0.69	C
	SR-125 to Sun Road Blvd	0.42	A	0.49	A	0.33	A	0.33	A	0.60	A	0.31	A	0.28	A
	Sun Road Blvd to Enrico Fermi Dr	0.19	A	0.21	A	0.32	B	0.16	A	0.18	A	0.28	B	0.19	A
	Enrico Fermi Dr to Alta Rd	0.27	A	0.25	A	0.21	A	0.22	A	0.03	A	0.21	A	0.22	A
	Alta Rd to Lone Star Rd	0.03	A	0.11	A	0.06	A	0.03	A	0.14	A	0.06	A	0.03	A
Airway Rd	Britannia Blvd to La Media Rd	0.47	B	0.51	B	0.55	C	0.45	B	0.50	B	0.56	C	0.50	B
	La Media Rd to SR 905	0.43	B	0.45	B	0.62	C	0.40	B	0.43	B	0.60	C	0.43	B
	SR 905 to Paseo De Las Americas	0.25	A	0.28	A	0.22	A	0.23	A	0.28	A	0.21	A	0.12	A
	Paseo de las Americas to Enrico Fermi Dr	0.23	A	0.26	A	0.51	B	0.14	A	0.16	A	0.49	B	0.20	B
	Enrico Fermi Dr to Alta Rd	0.25	A	0.21	A	0.30	A	0.19	A	0.14	A	0.29	A	0.18	A
	Alta Rd to Siempre Viva Rd	0.15	A	0.45	B	0.15	A	0.14	A	0.54	B	0.13	A	0.17	A
Siempre Viva Rd	Britannia Blvd to La Media Rd	0.27	A	0.27	A	0.31	A	0.27	A	0.27	A	0.31	A	0.27	A
	La Media Rd to Otay Center Dr	0.30	A	0.31	A	0.36	A	0.32	A	0.32	A	0.35	A	0.30	A
	Otay Center Dr to SR 905	0.30	A	0.30	A	0.31	A	0.38	A	0.30	A	0.16	A	0.17	A
	SR-905 to Paseo De Las Americas	0.87	D	0.98	E	1.31	F	0.72	C	0.83	D	1.33	F	0.86	D
	Paseo De Las Americas to Enrico Fermi Dr	0.32	A	0.36	A	0.64	F	0.18	A	0.23	A	0.65	C	0.30	A
	Enrico Fermi Dr to Alta Rd	0.31	A	0.31	A	0.49	B	0.19	A	0.22	A	0.50	B	0.30	A
	Alta Rd to Airway Rd	0.29	A	0.36	A	0.03	A	0.14	A	0.38	A	0.21	A	0.24	A
	Airway Rd to SR-11	0.28	A	0.10	A	0.11	A	0.27	A	0.08	A	0.11	A	0.52	B
	SR-11 to Lone Star Rd	0.16	A	0.10	A	0.11	A	0.35	A	1.59	F	0.11	A	0.34	A

V/C = Volume to Capacity Ratio

LOS = Level of Service

Table 9-7 (continued)
Horizon Year (2035)
Roadway Segment Capacity Analysis

ROUTE	LIMITS	SR-125 Connector / Two Interchange Design Variation		SR-125 Connector / One Interchange Design Variation		SR-125 Connector / No Interchange Design Variation		Full Interchange / Two Interchange Design Variation		Full Interchange / One Interchange Design Variation		Full Interchange / No Interchange Design Variation		Siempre Viva Rd / Full Interchange Design Variation	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Brittania Blvd	Otay Mesa Rd to SR-905	0.46	B	0.47	B	0.49	B	0.45	B	0.45	B	0.48	B	0.46	B
	SR-905 to Airway Rd	0.56	C	0.57	C	0.60	C	0.58	C	0.58	C	0.60	C	0.56	C
	Airway Rd to Siempre Viva Rd	0.40	B	0.40	B	0.42	B	0.40	B	0.40	B	0.43	B	0.40	B
La Media Rd	Lone Star Rd to Otay Mesa Rd	0.68	C	0.68	C	0.69	C	0.67	C	0.67	C	0.68	C	0.68	C
	Otay Mesa Rd to SR-905	0.60	C	0.64	C	0.69	C	0.58	C	0.63	C	0.71	C	0.60	C
	SR-905 to Airway Rd	0.32	B	0.33	B	0.57	C	0.33	B	0.33	B	0.54	C	0.48	C
	Airway Rd to Siempre Viva Rd	0.52	B	0.52	B	0.55	C	0.53	C	0.53	C	0.54	C	0.52	C
Piper Ranch Rd	Lone Star Rd to Zinser Rd	0.21	A	0.21	A	0.33	A	0.20	A	0.20	A	0.31	A	0.22	A
	Zinzer Rd to Otay Mesa Rd	0.55	C	0.61	C	0.62	C	0.53	C	0.60	C	0.64	C	0.55	C
	Otay Mesa Rd to Airway Rd	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-
Sunroad Blvd	Lone Star Rd to Zinser Rd	0.20	-	0.22	-	0.18	A	0.20	A	0.20	A	0.20	A	0.20	A
	Zinser Rd to Otay Mesa Rd	0.81	C	0.79	C	0.83	D	0.80	D	0.77	D	0.84	E	0.82	E
Sanyo Ave	Otay Mesa Rd to Airway Rd	0.45	B	0.56	B	0.81	D	0.50	B	0.55	B	0.82	D	0.53	D
	Airway Rd to Paseo De Las Americas	0.31	B	0.31	B	0.35	B	0.25	B	0.30	B	0.27	A	0.41	A
Enrico Fermi Dr	Lone Star Rd to Otay Mesa Rd	0.66	D	0.51	C	0.15	A	0.68	C	0.05	A	0.15	A	0.37	A
	Otay Mesa Rd to SR - 905	1.14	F	0.34	B	0.55	B	1.14	F	0.27	A	0.49	C	0.88	C
	SR-905 to Siempre Viva Rd	0.45	C	0.14	A	0.20	A	0.38	A	0.11	A	0.55	D	0.47	D
	South of Siempre Viva Rd	0.05	A	0.06	A	0.06	A	0.05	A	0.05	A	0.06	A	0.06	A
Alta Rd	North of Lone Star Rd	0.73	A	0.73	A	0.73	A	0.74	E	0.74	E	0.73	A	0.73	A
	Lone Star Rd to Otay Mesa Rd	0.24	A	0.37	A	0.21	A	0.19	A	0.43	B	0.21	A	0.21	A
	Otay Mesa Rd to Airway Rd	0.19	A	0.91	E	0.23	A	0.11	A	1.08	F	0.24	A	0.16	A
	Airway Rd to Siempre Viva Rd	0.04	A	0.28	A	0.05	A	0.03	A	0.22	A	0.05	A	0.01	A

V/C = Volume to Capacity Ratio
LOS = Level of Service

Table 9-8
Horizon Year (2035)
Intersection Capacity Analysis

Intersection	No Build				Two Interchagne Alternative				One Interchange Alternative				No Interchange Alternative				No Toll / Two Interchange Design Variation				No Toll / One Interchange Design Variation				No Toll / No Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.7	B	16.9	C	23.4	C	21.0	C	25.3	B	15.4	C	25.8	C	21.5	C	24.0	C	20.1	C	23.6	C	25.9	C	26.2	C	22.3
Lone Star Rd and SR-125 SB Ramps	B	13.7	A	9.2	C	21.2	C	23.9	B	15.2	C	23.2	B	12.9	C	23.8	B	12.3	B	18.2	B	13.8	B	19.3	B	15.8	C	26.8
Lone Star Rd and SR-125 NB Ramps	B	13.0	A	9.0	B	11.8	B	10.5	B	15.7	B	13.0	B	12.4	B	13.2	B	11.3	B	11.7	B	11.2	B	11.9	B	15.6	B	10.6
Lone Star Rd and Piper Ranch Rd	C	20.8	B	10.2	B	16.9	B	10.9	B	19.7	C	23.6	C	29.4	B	11.6	B	16.9	A	7.9	B	19.3	A	9.8	C	21.7	B	17.8
Lone Star Rd and Sunroad Blvd	A	7.1	B	16.6	A	9.1	B	19.0	A	8.7	B	15.5	C	22.2	C	26.2	A	7.0	B	17.0	A	7.5	B	17.6	B	14.4	C	32.9
Lone Star Rd and Zinser Rd	B	10.6	B	13.9	B	13.8	B	15.4	B	13.4	D	41.7	B	19.7	B	15.3	A	9.8	B	16.0	B	11.3	A	9.9	B	19.4	B	16.0
Lone Star Rd and Van Center Blvd	A	7.6	A	9.7	A	9.7	B	12.3	B	10.1	B	10.7	B	19.9	B	17.2	B	10.5	B	11.3	B	10.5	B	11.7	C	20.3	B	15.5
Lone Star Rd and Enrico Fermi Dr	B	13.3	A	9.1	B	15.0	B	10.5	B	13.7	B	13.0	B	16.7	B	16.8	B	14.7	B	10.2	B	12.8	B	11.4	B	16.1	B	13.9
Lone Star Rd and Alta Rd	C	21.8	C	29.7	C	21.8	C	28.1	C	23.4	C	28.4	C	21.9	C	26.7	C	21.2	C	28.0	C	22.9	C	28.4	C	21.4		27.7
Lone Star Rd and Otay Mesa Rd	B	10.5	B	13.3	A	8.7	A	9.2	B	12.7	C	21.6	B	10.8	B	11.0	A	8.9	A	9.8	B	15.6	B	19.1	B	10.0	B	11.0
Lone Star Rd and Siempre Viva Rd	B	10.5	B	17.2	A	9.9	B	15.4	B	11.7	B	13.6	B	11.8	B	13.7	B	10.5	B	13.0	B	11.5	B	13.3	B	11.8	B	13.8
Zinser Rd and Piper Ranch Rd	B	14.1	B	15.4	B	12.8	B	13.6	B	14.9	B	13.5	B	14.4	B	12.6	B	12.7	B	11.6	B	13.0	B	14.8	B	13.0	B	16.0
Zinser Rd and Sunroad Blvd	C	26.5	C	32.7	C	23.5	C	28.1	C	25.0	C	33.4	C	25.7	C	31.0	C	22.7	C	26.9	C	25.0	C	32.0	C	28.3	C	31.7
Otay Mesa Rd and Britannia Blvd	B	16.6	B	19.6	B	17.6	C	22.0	B	18.1	B	15.8	B	19.5	C	21.9	B	16.8	C	20.7	B	17.3	C	20.2	B	19.0	C	21.6
Otay Mesa Rd and La Media Rd	F	>80.0	F	>80.0	E	74.1	F	>80.0	E	69.0	F	>80.0	F	>80.0	F	>80.0	E	65.2	E	69.0	E	77.8	F	>80.0	F	>80.0	F	>80.0
Otay Mesa Rd and Piper Ranch Rd	C	32.7	C	29.3	C	27.3	C	25.9	C	31.5	C	26.5	C	39.3	D	36.9	C	28.0	C	30.5	C	27.3	C	30.4	D	50.2	E	79.7
Otay Mesa Rd and SR-125 SB Off Ramp	A	7.5	A	8.2	A	9.3	A	8.7	A	9.2	A	8.2	B	11.0	B	11.8	B	10.2	A	8.5	B	12.1	A	9.9	B	15.9	D	39.9
Otay Mesa Rd and SR-125 NB On Ramp	A	2.7	A	5.0	A	2.5	A	3.9	A	2.3	A	4.9	B	12.3	A	2.4	A	2.0	A	3.3	A	2.1	A	5.3	A	5.1	B	16.8
Otay Mesa Rd and Harvest Rd	C	22.6	C	20.1	B	19.4	B	17.7	B	19.9	C	20.4	C	21.5	B	17.9	B	19.3	B	18.3	C	20.8	B	19.7	C	23.3	C	20.2
Otay Mesa Rd and Sanyo Ave	B	18.9	C	23.2	C	22.9	C	25.7	C	23.7	C	23.4	C	21.4	C	28.2	B	19.2	B	19.3	B	19.4	C	23.8	C	25.3	C	25.7
Otay Mesa Rd and Van Center Blvd	A	8.5	A	6.9	A	7.7	A	8.0	A	9.7	B	14.8	A	8.3	B	10.7	A	7.8	A	6.6	A	8.2	A	9.5	A	7.8	A	8.2
Otay Mesa Rd and Enrico Fermi Dr	C	26.5	D	41.5	C	25.4	F	>80.0	C	23.1	C	29.4	C	23.2	D	37.3	C	22.8	C	31.3	C	21.6	C	29.8	C	26.2	C	30.5
Otay Mesa Rd and Alta Rd	C	26.5	C	26.0	C	21.2	C	21.9	D	53.1	D	38.0	C	21.6	C	21.4	B	18.3	B	18.2	E	55.9	E	58.0	C	21.6	C	25.9
SR 905 WB Ramps and Britannia Blvd	A	8.2	B	13.4	A	8.5	B	12.8	B	10.4	B	16.2	B	12.2	B	13.6	A	8.0	B	13.2	A	7.9	B	12.5	A	8.5	B	13.7
SR 905 EB Ramps and Britannia Blvd	B	13.8	B	17.4	B	14.5	B	15.0	B	13.2	B	17.7	B	11.8	B	15.8	B	14.0	B	15.0	B	13.9	B	14.9	B	14.5	B	15.4
SR 905 WB Off Ramp and La Media Rd	B	15.1	B	13.0	B	10.2	B	12.7	B	10.3	B	12.2	C	17.9	E	65.9	B	16.4	B	16.3	B	14.7	B	12.6	C	20.1	C	33.2
SR 905 EB Ramps and La Media Rd	B	15.0	C	21.0	B	15.1	B	18.4	B	13.6	B	16.1	B	30.3	C	24.0	B	14.2	B	17.3	B	13.9	B	19.3	B	17.8	C	22.6
SR 11 and Enrico Fermi Dr	A	3.2	A	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Ramps and Enrico Fermi Dr	-	-	-	-	B	19.8	C	26.6	-	-	-	-	-	-	-	-	B	18.6	B	18.6	-	-	-	-	-	-	-	-
SR 11 WB Ramps and Enrico Fermi Dr	-	-	-	-	C	21.8	C	23.1	-	-	-	-	-	-	-	-	B	18.5	C	21.6	-	-	-	-	-	-	-	-
SR 11 Alta Rd EB Ramps	-	-	-	-	-	-	-	-	B	18.3	C	24.7	-	-	-	-	-	-	-	-	C	20.0	C	31.4	-	-	-	-
SR 11 Alta Rd WB Ramps	-	-	-	-	-	-	-	-	B	15.7	C	20.9	-	-	-	-	-	-	-	-	B	18.2	B	16.8	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	-	-	-	-	A	5.4	A	4.4	-	-	-	-	-	-	-	-	A	4.7	A	6.3	-	-	-	-	-	-	-	-
SR 11 WB On Ramp and Siempre Viva Rd	-	-	-	-	A	8.0	B	10.4	-	-	-	-	-	-	-	-	A	8.4	A	9.3	-	-	-	-	-	-	-	-
Airway Rd and Britannia Blvd	C	26.9	C	22.5	C	26.5	C	21.6	C	32.9	C	29.0	C	28.2	C	24.5	C	23.4	C	21.4	C	23.2	C	22.2	C	28.0	C	24.6
Airway Rd and La Media Rd	D	39.7	D	44.5	D	40.3	D	39.2	D	42.4	D	42.8	D	43.5	D	41.7	D	39.4	D	41.2	C	31.1	D	41.1	D	44.7	D	47.8
Airway Rd and Sanyo Ave	C	26.2	C	25.0	C	25.4	C	25.1	C	27.7	C	25.3	C	27.0	D	35.2	C	24.9	C	22.9	C	24.6	C	24.5	C	26.5	C	24.5
Airway Rd and Paseo De Las Americas	B	16.2	B	15.9	B	15.0	B	14.4	B	18.1	B	16.7	B	16.4	B	19.4	A	9.5	B	12.4	A	9.6	B	17.2	B	17.4	B	17.4
Airway Rd and Enrico Fermi Dr	C	27.0	C	24.9	C	23.4	C	34.1	C	25.6	C	30.8	C	29.2	D	35.4	C	24.9	C	26.5	C	23.9	C	29.0	C	28.8	C	34.2
Airway Rd and Alta Rd	C	21.5	C	24.3	B	19.8	C	21.6	C	29.6	C	30.3	C	20.8	B	18.5	B	19.3	B	19.4	C	29.9	C	27.3	C	20.8	B	19.9
Siempre Viva Rd and Britannia Blvd	C	28.0	C	25.5	C	22.8	C	24.5	C	22.8	C	23.5	C	26.5	C	31.9	C	22.7	C	23.2	C	27.2	C	25.6	C	25.5	C	28.5
Siempre Viva Rd and La Media Rd	C	24.2	C	29.4	C	21.1	C	24.1	C	21.5	C	23.1	C	23.3	C	24.6	C	23.5	C	22.6	C	23.3	C	23.4	C	23.7	C	24.9
Siempre Viva Rd and Otay Center Dr	C	26.9	C	26.6	C	26.5	C	31.6	C	28.9	C	29.9	D	36.3	D	40.8	B	18.9	C	24.4	C	21.0	C	22.3	C	27.7	C	33.2
Siempre Viva Rd and SR-905 SB Ramps	A	8.9	B	11.3	A	8.2	A	9.5	B	13.5	B	14.1	B	12.0	D	42.3	A	7.6	A	7.3	A	5.6	A	8.1	A	8.9	B	11.8
Siempre Viva Rd and SR-905 NB Ramps	D	44.6	D	50.1	C	27.4	C	29.6	C	31.1	D	37.3	E	62.1	E	72.3	C	20.6	B	19.4	C	22.5	C	21.5	D	42.0	D	46.8
Siempre Viva Rd and Paseo De Las Americas	D	38.6	D	53.4	D	38.9	D	50.8	D	36.0	D	38.2	E	68.1	F	>80.0	D	36.8	C	26.0	C	33.9	C	28.3	E	75.3	F	>80.0
Siempre Viva Rd and Enrico Fermi Dr	C	34.8	C	34.5	C	29.3	C	28.3	C	29.4	C	23.3	D	43.3	E	62.0	C	21.6	C	23.8	C	22.4	C	26.6	D	43.3	E	65.8
Siempre Viva Rd and Alta Rd	C	27.4	B	18.1	C	30.2	B	19.3	C	31.6	D	36.9	B	16.2	C	23.9	C	21.8	B	16.0	C	24.7	C	24.1	C	26.1	B	19.1
Siempre Viva Rd and Airway Rd	B	14.6	B	16.8	C	21.4	C	21.9	B	17.3	C	21.0	C	26.4	C	26.1	C	22.1	C	20.1	B	16.7	C	24.9	B	16.5	B	16.8

LOS = Level of Service

Table 9-8 (continued)
Horizon Year (2035)
Intersection Capacity Analysis

Intersection	SR-125 Connector / Two Interchange Design Variation				SR-125 Connector / One Interchange Design Variation				SR-125 Connector / No Interchange Design Variation				Full Interchange / Two Interchange Design Variation				Full Interchange / One Interchange Design Variation				Full Interchange / No Interchange Design Variation				Siempre Viva Rd / Full Interchange Design Variation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Lone Star Rd and La Media Rd	C	24.0	C	20.5	C	24.1	C	20.7	C	25.0	C	21.1	C	23.3	B	15.6	D	47.3	C	32.9	C	32.5	D	40.2	C	22.0	C	24.1
Lone Star Rd and SR-125 SB Ramps	B	13.0	B	19.0	B	12.9	B	19.4	B	13.0	B	15.7	B	11.9	C	21.2	B	11.4	B	15.4	B	12.7	B	12.9	B	14.1	B	12.2
Lone Star Rd and SR-125 NB Ramps	B	11.6	B	10.9	B	12.2	B	11.6	B	12.8	B	11.5	B	11.3	B	13.6	B	11.7	B	10.4	C	21.2	B	14.3	B	11.9	A	7.6
Lone Star Rd and Piper Ranch Rd	B	16.6	A	9.9	B	17.1	C	25.8	C	20.3	B	10.7	B	18.0	A	10.0	B	15.7	A	8.0	B	19.6	B	13.2	C	21.1	A	9.6
Lone Star Rd and Sunroad Blvd	A	7.8	B	19.0	A	9.2	B	19.8	B	13.3	B	19.6	B	15.0	B	16.6	A	6.7	B	15.3	B	13.8	B	23.0	A	6.4	B	18.3
Lone Star Rd and Zinser Rd	B	12.2	B	14.6	B	19.0	D	53.2	B	19.3	B	18.0	B	11.2	B	15.0	B	14.2	B	13.9	B	16.2	B	15.6	B	16.1	B	14.4
Lone Star Rd and Van Center Blvd	A	9.4	B	12.2	B	11.0	B	16.6	B	11.7	B	10.9	A	8.1	B	12.3	A	9.7	A	7.6	B	11.6	B	11.0	B	11.5	B	13.5
Lone Star Rd and Enrico Fermi Dr	B	17.0	B	10.9	B	13.4	B	12.9	B	12.0	B	11.2	B	16.0	B	12.4	B	12.3	A	9.0	B	13.0	B	8.9	B	14.6	A	7.2
Lone Star Rd and Alta Rd	C	21.1	C	28.3	C	20.7	C	25.6	C	23.9	C	27.1	C	20.6	C	28.0	C	23.0	C	30.2	C	21.1	C	25.6	C	21.7	C	27.5
Lone Star Rd and Otay Mesa Rd	A	8.2	B	11.1	B	17.1	C	22.1	A	9.6	B	15.0	A	9.3	A	9.9	B	14.5	B	17.2	B	13.6	B	14.6	A	7.6	A	9.6
Lone Star Rd and Siempre Viva Rd	B	12.7	B	13.1	B	13.4	B	18.3	B	13.6	B	19.9	B	14.3	B	14.3	B	11.8	B	12.6	B	11.4	B	10.2	A	9.9	B	13.2
Zinser Rd and Piper Ranch Rd	B	12.9	B	14.5	B	15.7	B	13.2	B	14.8	B	16.3	B	16.4	B	18.4	B	15.2	B	12.1	B	13.4	B	12.6	B	15.0	B	12.0
Zinser Rd and Sunroad Blvd	C	23.7	C	26.5	C	25.7	C	34.6	C	25.9	C	32.3	C	25.0	C	25.9	C	23.5	D	35.7	C	25.8	C	27.0	C	22.9	C	28.0
Otay Mesa Rd and Britannia Blvd	C	20.5	C	20.1	C	21.6	C	20.5	B	19.4	C	23.2	B	17.0	B	13.8	B	17.2	B	19.4	B	19.4	C	22.7	B	17.6	C	22.6
Otay Mesa Rd and La Media Rd	E	71.9	F	>80.0	E	65.5	F	>80.0	F	>80.0	F	>80.0	F	>80.0	F	>80.0	E	63.1	E	78.9	F	>80.0	F	>80.0	E	65.5	E	71.9
Otay Mesa Rd and Piper Ranch Rd	C	30.4	C	26.9	C	30.8	C	27.4	C	29.8	C	25.3	D	41.4	C	27.9	C	34.8	C	24.8	C	29.7	C	27.7	C	33.5	C	27.5
Otay Mesa Rd and SR-125 SB Off Ramp	B	10.0	A	8.8	B	10.5	A	8.7	A	9.4	B	13.2	A	8.3	A	8.3	B	10.9	B	11.6	A	9.3	A	9.2	B	11.6	B	12.2
Otay Mesa Rd and SR-125 NB On Ramp	A	2.1	A	3.3	A	2.2	A	4.3	A	2.3	A	4.8	A	2.9	A	5.1	A	2.4	A	5.1	A	2.4	A	4.9	A	2.2	A	2.7
Otay Mesa Rd and Harvest Rd	B	19.7	B	19.2	C	20.7	B	18.1	B	18.9	B	19.4	B	15.6	B	17.9	C	21.7	C	22.3	C	21.1	C	23.8	B	18.6	B	17.6
Otay Mesa Rd and Sanyo Ave	C	21.9	C	24.4	B	18.7	C	25.9	C	22.2	C	22.1	C	23.9	C	22.5	B	19.4	C	29.5	C	20.3	B	18.5	B	17.4	B	19.0
Otay Mesa Rd and Van Center Blvd	A	7.9	A	9.0	A	7.5	A	7.7	A	8.4	A	7.8	B	10.4	B	10.8	A	7.5	B	10.9	A	6.7	A	6.6	A	8.3	A	6.1
Otay Mesa Rd and Enrico Fermi Dr	C	24.3	E	77.5	C	20.7	C	31.7	C	24.3	C	30.8	C	25.2	D	45.0	C	21.5	C	24.2	C	24.8	C	25.4	B	17.8	C	25.5
Otay Mesa Rd and Alta Rd	C	21.6	C	21.2	D	43.4	D	39.7	C	23.3	C	24.3	C	22.3	B	15.0	E	61.1	D	42.3	C	23.5	C	24.2	C	20.5	C	20.8
SR 905 WB Ramps and Britannia Blvd	A	7.1	B	12.7	A	7.2	B	12.5	A	9.1	B	12.5	A	9.8	B	14.2	A	9.3	B	11.6	A	9.2	B	12.9	A	7.4	B	11.2
SR 905 EB Ramps and Britannia Blvd	B	11.3	B	15.2	B	11.9	B	14.8	B	13.1	B	15.5	B	13.5	B	18.4	B	12.8	B	16.8	B	12.8	B	15.0	B	13.7	B	15.1
SR 905 WB Off Ramp and La Media Rd	B	10.5	B	12.5	B	10.2	B	11.9	C	18.5	D	40.3	C	27.9	E	55.9	B	13.6	B	12.5	B	17.9	C	25.5	B	14.7	B	14.4
SR 905 EB Ramps and La Media Rd	B	13.5	B	17.6	B	12.9	B	17.0	B	16.6	C	27.0	B	13.6	B	18.2	B	16.6	B	16.9	B	14.6	B	18.1	B	12.5	B	18.8
SR 11 and Enrico Fermi Dr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Ramps and Enrico Fermi Dr	C	21.1	C	27.1	-	-	-	-	-	-	-	-	A	8.8	B	11.9	C	20.2	D	36.0	-	-	-	-	B	13.4	B	16.4
SR 11 WB Ramps and Enrico Fermi Dr	C	25.4	C	23.1	-	-	-	-	-	-	-	-	B	15.6	B	16.6	C	24.8	C	22.3	-	-	-	-	B	18.2	B	16.3
SR 11 Alta Rd EB Ramps	-	-	-	-	B	19.9	C	22.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 Alta Rd WB Ramps	-	-	-	-	B	16.7	C	22.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR 11 EB Off Ramp and Siempre Viva Rd	A	4.1	A	5.7	-	-	-	-	-	-	-	-	B	10.8	B	12.6	-	-	-	-	-	-	-	-	C	23.3	C	28.3
SR 11 WB On Ramp and Siempre Viva Rd	A	5.6	A	9.4	-	-	-	-	-	-	-	-	A	7.2	A	8.8	-	-	-	-	-	-	-	-	C	24.9	C	20.7
Airway Rd and Britannia Blvd	C	34.4	C	22.1	D	37.6	C	26.0	C	28.1	C	23.6	C	31.2	C	26.7	C	27.8	C	24.0	C	26.9	C	23.1	C	26.4	C	23.4
Airway Rd and La Media Rd	D	38.3	D	40.3	D	39.8	D	41.7	D	42.8	D	43.4	D	40.3	D	39.5	C	33.8	D	41.3	D	39.3	D	41.5	C	32.1	D	41.2
Airway Rd and Sanyo Ave	C	25.1	C	23.2	C	25.5	C	25.7	C	29.1	C	25.4	C	29.2	C	22.9	C	26.6	C	22.1	C	28.4	C	25.3	C	27.2	C	24.7
Airway Rd and Paseo De Las Americas	B	15.2	B	15.5	B	15.4	B	17.5	B	17.2	B	17.9	A	8.5	B	10.4	A	6.8	A	8.7	B	16.9	B	15.6	B	10.9	B	10.7
Airway Rd and Enrico Fermi Dr	C	24.0	C	31.0	C	23.6	C	22.8	C	28.9	C	33.1	D	40.6	D	43.2	B	19.9	C	20.2	C	27.9	D	48.9	C	27.3	D	37.0
Airway Rd and Alta Rd	C	23.0	B	19.3	C	26.4	C	24.5	C	22.2	C	20.2	B	17.4	B	19.5	C	31.2	C	26.7	C	21.1	B	18.5	C	21.1	B	18.6
Siempre Viva Rd and Britannia Blvd	C	24.9	C	23.1	C	24.9	C	25.1	C	30.0	C	28.0	C	21.7	C	26.0	C	28.2	C	24.4	C	29.0	C	24.1	C	24.9	C	24.4
Siempre Viva Rd and La Media Rd	C	22.3	C	25.4	C	22.3	C	29.3	C	23.1	C	28.4	C	20.5	C	28.3	C	22.6	C	22.1	C	23.5	C	25.2	C	20.9	C	21.2
Siempre Viva Rd and Otay Center Dr	C	26.6	C	30.9	C	27.5	C	29.7	C	32.1	C	30.6	C	31.7	C	32.8	C	30.3	C	30.9	C	31.9	C	30.0	C	25.3	C	27.7
Siempre Viva Rd and SR-905 SB Ramps	A	7.1	A	9.2	A	8.8	B	11.3	B	12.9	C	20.3	A	5.7	A	8.0	A	5.7	A	9.3	B	12.6	B	16.0	A	5.2	A	7.1
Siempre Viva Rd and SR-905 NB Ramps	C	25.2	C	26.6	C	29.7	C	34.6	E	62.3	F	>80.0	C	23.8	C	27.4	B	17.7	C	22.6	D	50.2	E	59.5	C	23.3	B	19.6
Siempre Viva Rd and Paseo De Las Americas	D	40.0	D	47.9	D	36.2	D	38.0	E	64.6	F	>80.0	C	22.6	C	23.6	C	23.2	C	26.7	E	74.0	F	>80.0	C	31.2	C	31.5
Siempre Viva Rd and Enrico Fermi Dr	C	26.2	C	26.7	C	27.8	C	28.2	D	42.9	E	58.0	C	29.0	C	30.3	C	21.1	C	26.4	D	43.6	D	54.7	C	24.1	C	27.6
Siempre Viva Rd and Alta Rd	C	28.3	B	18.3	C	30.0	C	28.5	C	26.4	C	21.1	C	20.5	B	17.9	B	19.2	B	19.5	C	31.6	C	26.4	C	20.6	B	15.8
Siempre Viva Rd and Airway Rd	C	21.9	C	21.8	B	18.8	C	21.0	B	14.4	B	15.8	B	19.2	B	18.5	C	21.8	C	28.1	B	19.1	C	32.3	C	21.3	C	24.4

LOS = Level of Service