Project-Level Conformity Determination Air Quality Fine Particulate Matter ($PM_{2.5}$ and PM_{10})

INTERSTATE 215/VAN BUREN BOULEVARD INTERCHANGE RECONSTRUCTION

October 2007

CALTRANS DISTRICT 8-RIVERSIDE COUNTY-INTERSTATE 215

PM 32.3/35.9
EA: 0E5200
RTIP ID: RIV060120

Prepared for:
March Joint Powers Authority
California Department of Transportation
Federal Highway Administration

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$\mu g/m^3$	micrograms per cubic meter
1977 CAA	Clean Air Act Amendment of 1977
1990 CAA	Clean Air Act Amendment of 1990
ADT	average daily traffic
APCD	Air Pollution Control District
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
I-215	Interstate 215
KHA	Kimley-Horn and Associates, Inc.
LOS	level of service
MPO	metropolitan planning organization
NAAQS	National Ambient Air Quality Standards
NB	northbound
O_3	ozone
PM	particulate matter
PM_{10}	particulate matter equal to or smaller than 10 microns in diameter
$PM_{2.5}$	particulate matter equal to or smaller than 2.5 microns in diameter
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SB	southbound
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
TIP	Transportation Improvement Plan
USC	U.S. Code
VMT	vehicle miles traveled
WRCC	Western Regional Climate Center

SECTION 1 INTRODUCTION

This project-level analysis was prepared to estimate and evaluate potential $PM_{2.5}$ and PM_{10} impacts associated with the proposed Interstate 215(I-215)/Van Buren Boulevard Interchange Improvement Project (hereinafter referred to as the "proposed project"). The analysis was conducted following the "Transportation Conformity Guidance for Qualitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas" (PM Guidance) developed by the U.S. Environmental Protection Agency (EPA) and Federal Highway Administration (FHWA). To obtain specific requirements regarding analysis procedures, consultations were conducted with the Southern California Association of Governments (SCAG) and California Department of Transportation (Caltrans) before this analysis was completed.

1.1 PURPOSE OF THE ANALYSIS

The federal Clean Air Act (CAA) Section 176(c) requires that federally supported highway and transit project activities are consistent with state air quality goals, found in the State Implementation Plan (SIP). The process to ensure this consistency is called "transportation conformity." Conformity to the SIP means that transportation activities would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant National Ambient Air Quality Standards (NAAQS).

Transportation conformity is required for federally supported transportation projects in areas that have been designated by the EPA as nonattainment areas if they currently do not meet air quality standards or maintenance areas if they had previously violated air quality standards, but currently meet them and have an approved maintenance plan.

The EPA amended the Transportation Conformity Rule on March 10, 2006, requiring a hot-spot analysis to determine project-level conformity in $PM_{2.5}$ and PM_{10} nonattainment and maintenance areas. A hot-spot analysis, or a project-level analysis, is an assessment of localized air quality impacts from a proposed transportation project. The $PM_{2.5}$ and PM_{10} hot-spot requirements in the final Transportation Conformity Rule became effective April 5, 2006. Project-level conformity determinations are required pursuant to 40 Code of Federal Regulations (CFR) 93.116 and 93.123.

1.2 NEED AND PURPOSE OF THE PROPOSED PROJECT

The purpose of the proposed project is to mitigate the existing and projected capacity and operational deficiencies at the I-215/Van Buren Boulevard interchange from the rapidly increasing traffic demand generated by the accelerated growth and development in the county. Several large residential and commercial developments are either under construction or in various stages of development, which are expected to generate traffic volumes in excess of what Van Buren Boulevard and the interchange can accommodate. Improvements included in the proposed project consist of reconfiguration of the interchange, realignment of I-215, bridge replacement, lane additions, and local street improvements.

1.3 PROJECT DESCRIPTION AND ALTERNATIVES

The proposed project is in Riverside County. Figure 1-1 depicts the project location in a regional context. Figure 1-2 shows the existing conditions of the study area, including the limits of the traffic analyses. As shown in Figure 1-2, Cactus Avenue is to the north (approximately 1.6 miles) and Oleander Avenue to the south (approximately 1.9 miles) of the I-215/Van Buren Boulevard interchange.

Two project alternatives, Alternative 2A and Alternative 2E, are being considered for this project. Although there would be slight variations in the design, both alternatives propose to replace the existing tight diamond interchange with a modified cloverleaf interchange at Van Buren Boulevard. The new interchange requires Van Buren Boulevard to have a six-lane bridge structure over the Burlington Northern Santa Fe Railway and I-215 main lanes. Van Buren Boulevard east of I-215 will be extended southbound (SB) as a frontage road along the March Air Reserve Base and consist of four lanes. Improvements also include realignment of all northbound (NB) and SB ramps. I-215 will continue to have three lanes in each direction and be realigned to provide a median wide enough

to accommodate future widening to its ultimate configuration. The proposed project calls for construction of an auxiliary lane on I-215 between the Van Buren Boulevard and Cactus Avenue interchanges in both directions.

The project layout plans for these two project alternatives are shown in Figures 1-3 and 1-4. Detailed project design and traffic information are presented in the "Traffic Operational Analysis, I-215/Van Buren Boulevard Interchange" (Kimley-Horn and Associates, Inc. [KHA], 2007). Appendix A of this report includes the introduction section of the traffic analysis, which provides a description of the proposed project.

The $PM_{2.5}$ and PM_{10} analysis utilized traffic data predicted in the traffic analysis. These traffic data were based on current and future population, employment, and travel and congestion data obtained from the SCAG, with input from other agencies, including Caltrans, the County of Riverside, March Joint Powers Authority, and City of Moreno Valley.

1.4 ANALYSIS STRUCTURES

The principal elements of the analysis, which are discussed in the sections of this report, are as follows:

- Environmental setting and regulatory framework (Sections 2 and 3),
- Regional air quality analysis (Section 4),
- Construction impact analysis (Section 5),
- Project-level particulate matter (PM) analysis (Section 6), and
- Conclusions (Section 7).

References used for this analysis are listed in Section 8. Supporting information and data are presented in Appendices A and B.

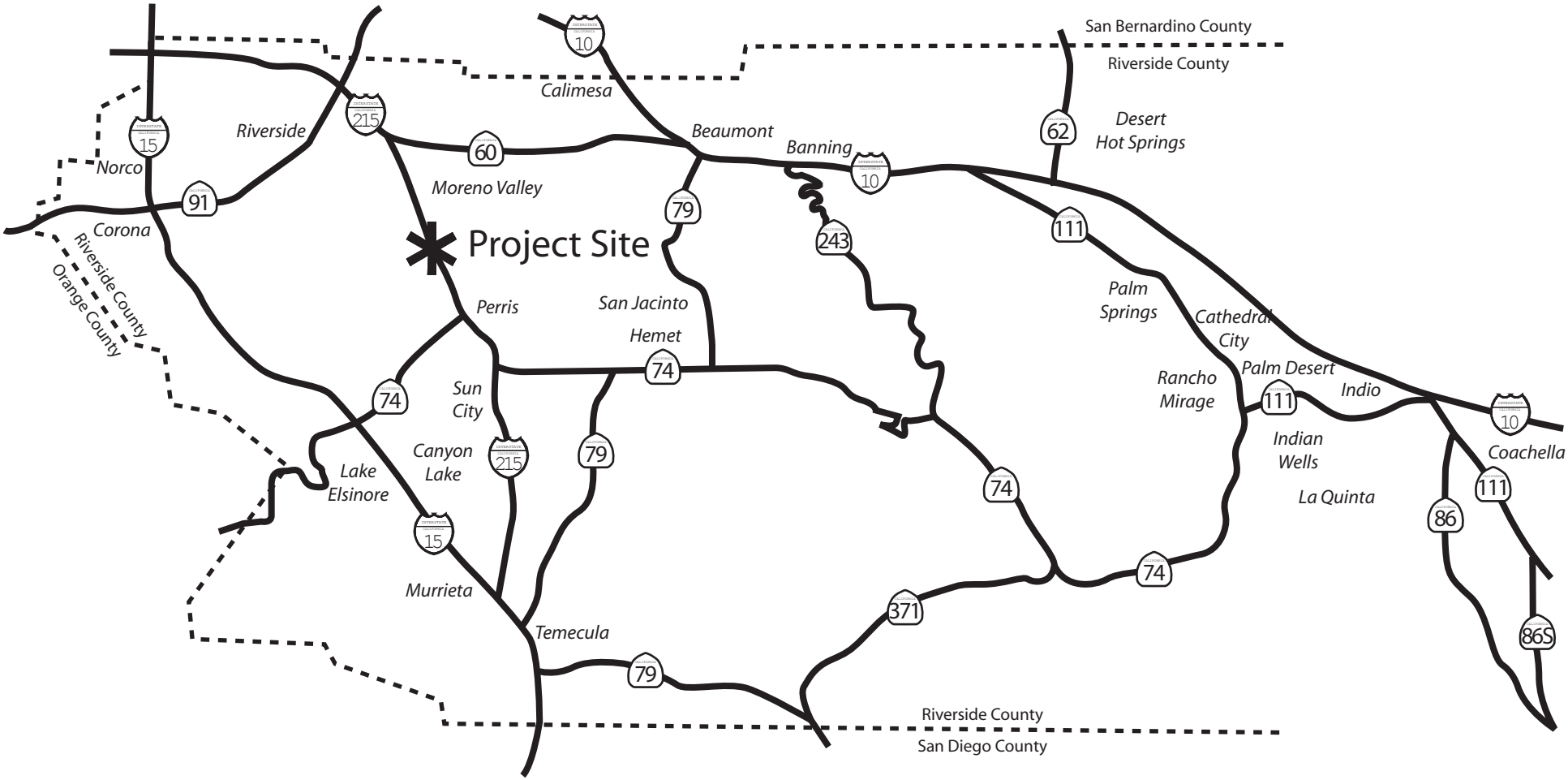

FIGURE 1-1

Regional Vicinity Map

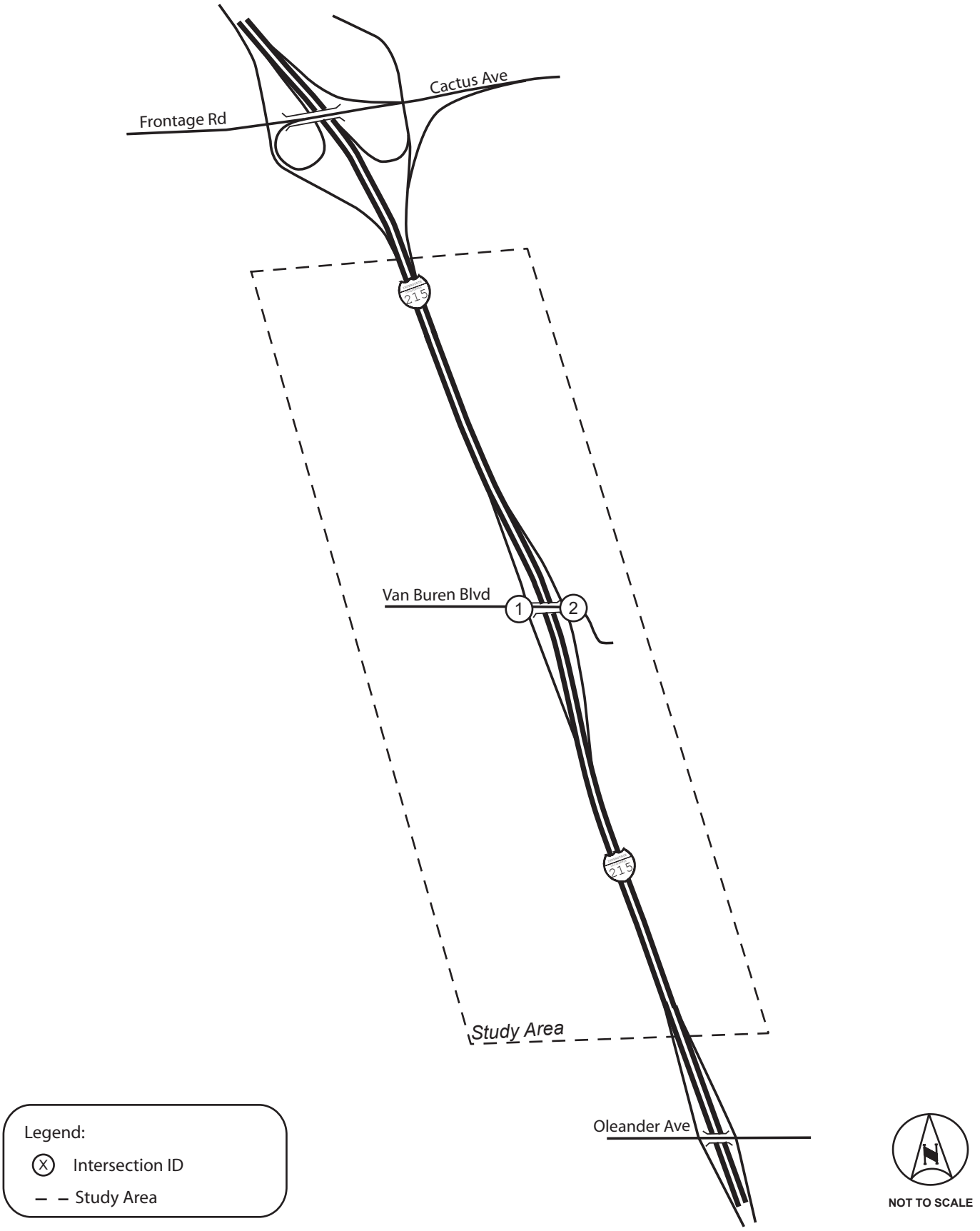

FIGURE 1-2

Project Study Area

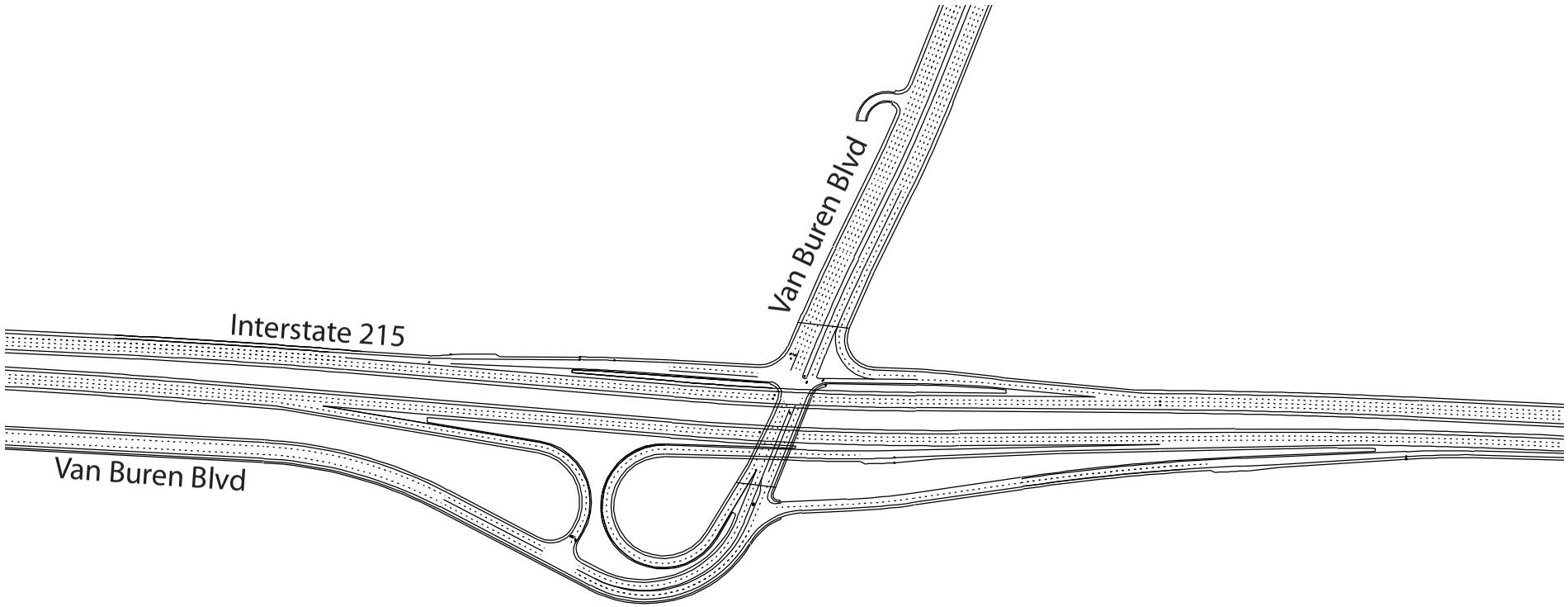

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FIGURE 1-3

Alternative 2A Design

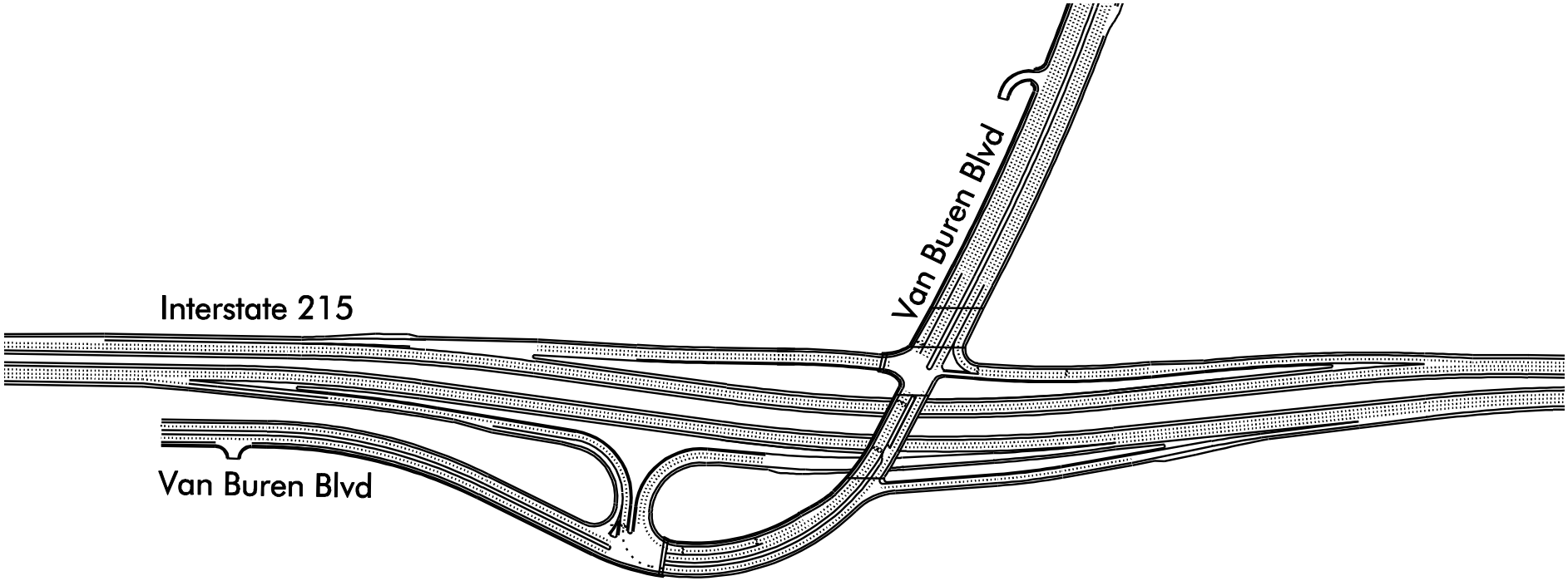

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FIGURE 1-4

Alternative 2E Design

SECTION 2 ENVIRONMENTAL SETTING

2.1 CLIMATE/METEOROLOGY

The project site is in the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD), within the South Coast Air Basin (SCAB). The SCAB encompasses 6,745 square miles and includes some portions of Riverside, San Bernardino, Los Angeles, and Orange counties. The SCAB is primarily a coastal plain with interconnected valleys and low hills progressing into high mountain ranges on the perimeter. The region is within a semi-permanent high-pressure system that lies off the coast. Consequently, the weather is mild, tempered by a daytime sea breeze and nighttime land breeze. The mild climate is infrequently interrupted by periods of extremely hot weather, winter storms, and Santa Ana winds.

The Western Regional Climate Center (WRCC) compiled climate data from 1948 through 2005 (WRCC, 2006) for major western cities in the United States. According to the WRCC climate data summary, in Riverside County, the average daily maximum temperature is 94.3°F in August, and the average daily minimum temperature is 41.3°F in December. The normal precipitation is 10.12 inches annually, occurring primarily from December through March. The annual average wind speed in Riverside County is 5.8 miles per hour. Climate and meteorology data for Riverside County are summarized in Table 2-1.

Table 2-1
CLIMATE AND METEOROLOGY DATA SUMMARY
RIVERSIDE COUNTY, CALIFORNIA

Month	Temperature (°F)		Average Wind Speed (miles per hour)	Prevailing Wind Direction	Precipitation (inches)
	Average Maximum	Average Minimum			
Jan	66.5	41.6	5.5	NW	2.19
Feb	67.9	43.2	5.7	WNW	2.20
Mar	69.9	44.9	5.6	WNW	1.74
Apr	75.0	47.8	6.1	WNW	0.80
May	79.4	52.5	6.3	WNW	0.23
Jun	86.5	56.2	6.3	WNW	0.07
Jul	93.8	60.4	6.2	WNW	0.04
Aug	94.3	61.1	6.0	WNW	0.12
Sep	90.4	58.4	5.6	WNW	0.26
Oct	82.3	52.4	5.5	WNW	0.34
Nov	73.2	45.2	5.4	WNW	0.91
Dec	67.5	41.3	5.7	NW	1.22
Annual Mean	78.9	50.4	5.8	WNW	10.12

2.2 PARTICULATE MATTER HEALTH EFFECTS

Based on information published by the EPA (EPA, 2005) and California Air Resources Board (CARB, 2002), the following paragraph describes the health effects of particulate matter that would potentially be emitted during project construction and operations.

Airborne particulate matter (PM) consists of many different substances suspended in air in the form of particles (solids or liquid droplets) that vary widely in size. $PM_{2.5}$ is defined as particulate matter with a diameter less than or equal to 2.5 microns, and PM_{10} is defined as particulate matter with a diameter less than or equal to 10 microns. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing and application of fertilizers and pesticides, dust from road construction, industrial processes such

as steel making, mining operations, agricultural burning (field and slash burning), and operations of fireplaces and woodstoves. Particulate pollution can cause eye, nose, and throat irritation and other health problems.

SECTION 3 REGULATORY FRAMEWORK

3.1 FEDERAL

The NAAQS were established by the federal CAA of 1970 and amended in 1977 and 1990. The NAAQS represent the maximum levels of pollution considered safe, with an adequate margin of safety, to protect public health and welfare. In the 1970 CAA, the NAAQS were established for six criteria air pollutants, including PM_{10}.

In 1997, the EPA issued the NAAQS for particulate matter equal to or smaller than $PM_{2.5}$. The $PM_{2.5}$ standards are an annual average of 15 micrograms per cubic meter ($\mu g/m^3$) and a 24-hour average of 65 $\mu g/m^3$. The national 24-hour $PM_{2.5}$ standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. To attain the annual NAAQS for $PM_{2.5}$, the three-year average of the weighted annual mean $PM_{2.5}$ concentrations must not exceed 15 $\mu g/m^3$.

On October 17, 2006, the EPA issued the "National Ambient Air Quality Standards for Particulate Matter Final Rule" (40 CFR Part 50). This final rule states that the EPA has reduced the level of the 24-hour $PM_{2.5}$ standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ and has revoked the annual PM_{10} standard. This final rule became effective on December 18, 2006.

Table 3-1 presents the NAAQS for PM_{10} and $PM_{2.5}$ at different averaging periods. When an area violates a health-based standard, the CAA requires that the area be designated as nonattainment for that pollutant. The proposed project is in the SCAB, which is designated as federal nonattainment for $PM_{2.5}$ and PM_{10} by the EPA.

According to the EPA (2007), because EPA's nonattainment designations for existing $PM_{2.5}$ nonattainment areas were based on the 1997 $PM_{2.5}$ standards, these 1997 standards apply for transportation conformity in current $PM_{2.5}$ nonattainment areas. The EPA states: "Transportation conformity for the 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ does not apply until one year after the effective date of nonattainment designations that consider that standard" (EPA, 2007).

3.2 STATE

The CARB has developed the California Ambient Air Quality Standards (CAAQS) for PM_{10} and $PM_{2.5}$ (Table 3-1). In the past, the CAAQS were set at levels "not to be equaled or exceeded." During a review of state regulations in 1982 pursuant to Assembly Bill 1111, the CARB changed the basis for determining a violation of a state standard to an "exceed only" policy. The proposed project is in the SCAB, which is designated as state nonattainment for $PM_{2.5}$ and PM_{10}.

On June 5, 2003, the Office of Administrative Law approved the amendments to the regulations for the CAAQS for particulate matter. The amendments to the CAAQS are as follows:

- The annual average standard for PM_{10} is lowered from 30 to 20 $\mu g/m^3$, not to be exceeded,
- A new annual average standard is established for $PM_{2.5}$ at 12 $\mu g/m^3$, not to be exceeded, and
- The 24-hour average standard of 50 $\mu g/m^3$ for PM_{10} is retained.

3.3 LOCAL

The SCAQMD has jurisdiction over air quality programs in Riverside County. The SCAQMD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by the CARB or EPA. State and local government projects, as well as projects proposed by the private sector, are subject to requirements of the local air district if the sources are regulated by the SCAQMD. Additionally, the SCAQMD, along with the CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout the SCAB. These stations are used to monitor air pollutant levels in the ambient air.

The SCAQMD is responsible for preparing the Air Quality Management Plan (AQMP), which is part of the California SIP. The SCAQMD Governing Board adopted the 2003 AQMP on August 1, 2003. The 2003 AQMP updated the attainment demonstration for the federal standards for PM_{10}.

The SCAQMD Governing Board adopted the 2007 AQMP on June 1, 2007. The 2007 AQMP is a regional and multi-agency effort by the SCAQMD Governing Board, CARB, SCAG, and EPA. State and federal planning requirements in the 2007 AQMP include developing control strategies, attainment demonstration, reasonable further progress, and maintenance plans.

Table 3-1
NATIONAL AND CALIFORNIA AMBIENT PM STANDARDS

Pollutant	Averaging Time	California Standards	National Standards	
			Primary	Secondary
Respirable particulate matter (PM_{10})	Annual	20 µg/m^3	---	---
	24-hour	50 µg/m^3	150 µg/m^3	150 µg/m^3
Fine particulate matter ($PM_{2.5}$)	Annual	12 µg/m^3	15 µg/m^3	15 µg/m^3
	24-hour	No Separate State Standard	35 µg/m^3	35 µg/m^3

Source: CARB 2007

3.4 TRANSPORTATION CONFORMITY

The basis of the regional and project-level air quality transportation conformity analyses dates back to the passage of the CAA in 1970. Since inception of the CAA, many milestones to improve air quality have been undertaken through various laws, regulations, and rules.

In 1976, the California legislature adopted the Lewis Air Quality Management Act, which created the Air Quality Management Districts (AQMDs) in addition to Air Pollution Control Districts (APCDs). While separating from federal actions, the creation of AQMDs became an integral part of transportation conformity. The AQMDs and APCDs promulgate the state SIPs for achieving cleaner air quality region by region. A state SIP is a legal agreement between the state and federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analyses. The regional analysis is performed by the appropriate Metropolitan Planning Organization (MPO) and the project-level analysis by the project sponsor. For both analyses, the AQMD or APCD for the project area provides technical assistance.

Amendments were added that culminated in the CAA Amendment of 1977 (1977 CAA). The key provisions of the 1977 CAA called for the assurance of conformity as an affirmative responsibility of the head of each federal agency and stated that no MPO should approve any transportation plan, program, or project that does not conform to a SIP. Specifically, the 1977 CAA stated: "No federal department shall 1) engage in, 2) support in any way or provide financial assistance for, 3) license or permit, or 4) approve any activity which does not conform to a State Implementation Plan after it has been approved or promulgated."

The most recent revision to the CAA is the CAA Amendment of 1990 (1990 CAA). The scope and content of transportation conformity provisions were expanded to require the reconciliation of the emissions impacts of transportation plans, programs, and projects with the SIP. Specifically, transportation plans, programs, and projects must confirm to the purpose of the SIP. This integration of transportation and air quality planning is intended to ensure that transportation plans, programs, and projects will not: "1) cause or contribute to any new violation of any standard in any area; 2) increase the frequency or severity of any existing violation of any standard in any area; or 3) delay timely attainment of any standard or any required interim emissions reductions or other milestones in any area."

The 1990 CAA required a mechanism to conform the transportation plans, programs, and projects to the SIP. This was accomplished by the development of the Transportation Conformity Rule in 1993. The Transportation Conformity Rule is contained in Title 40 of the CFR Parts 51 and 93 (40 CFR 51 and 40 CFR 93). This rule established the criteria and procedures by which the FHWA, Federal Transit Administration, and MPO entities determine the conformity of federally funded or approved highway and transit plans, programs, and projects to SIP provisions.

Subsequently, several revisions were made to the Transportation Conformity Rule. For example, the August 1997 Transportation Conformity Rule Amendment set revisions that: 1) streamline and clarify regulatory text; 2) eliminate the build/no build test when SIP budgets have been submitted; 3) provide more flexibility even where there are no submitted SIP budgets; 4) allow for previously planned non-federal projects to go forward when there is no current conforming regional transportation plan (RTP)/transportation improvement program (TIP) (the court found this provision invalid, and it no longer applies); 5) limit network-based modeling requirements to large, urban areas; 6) provide rural areas the flexibility to choose among several conformity tests; 7) streamline and clarify modeling requirements; and 8) make consequences of an EPA SIP disapproval without a protective finding less severe (the court found this provision invalid, and it no longer applies).

The June 2004 Transportation Conformity Rule Amendment for the new 8-hour ozone (O_3) and $PM_{2.5}$ NAAQS set revisions that: 1) provide transportation conformity regulations for the new 8-hour O_3 and $PM_{2.5}$ NAAQS; 2) incorporate existing federal guidance that is consistent with the March 1999 U.S Court of Appeals decision (68 FR 38974); and 3) streamline and improve the EPA's existing transportation conformity rule.

On March 10, 2006, the Transportation Conformity Rule was updated to include regulations for performing PM_{10} and $PM_{2.5}$ hot-spot impact analyses. Only projects that are considered "Projects of Air Quality Concern" are required to perform the analyses. These projects are defined in the Transportation Conformity Rule as below:

- New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;
- Projects affecting intersections that are at Level of Service (LOS) D, E, or F with a significant number of diesel vehicles, and those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- Projects in or affecting locations, areas, or categories of sites which are identified in the $PM_{2.5}$ or PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

On April 16, 2007, the EPA published a guidance titled, "Transportation Conformity and the Revised 24-hour $PM_{2.5}$ Standard." The guidance states that because the EPA's nonattainment designations for existing $PM_{2.5}$ nonattainment areas were based on the 1997 $PM_{2.5}$ standards, these 1997 standards apply for transportation conformity in current $PM_{2.5}$ nonattainment areas. Transportation conformity for the federal 2006 24-hour $PM_{2.5}$ standard does not apply until one year after the effective date of nonattainment designations that consider that standard (EPA, 2007a).

The Transportation Conformity Rule established criteria for determining conformity of transportation plans, programs, and projects. The PM conformity criteria for a transportation project from a conforming RTP and TIP are as follows (40 CFR 93.109):

- Latest planning assumptions (40 CFR 93.110),
- Latest emissions model (40 CFR 93.111),
- Consultation (40 CFR 93.112),

- Currently conforming plan and TIP (40 CFR 93.114),
- Project from a conforming plan and TIP (40 CFR 93.115),
- PM_{10}, and $PM_{2.5}$ hot-spots (40 CFR 93.116), and
- PM_{10} and $PM_{2.5}$ control measures (40 CFR 93.117).

SECTION 4 REGIONAL AIR QUALITY CONFORMITY ANALYSIS

4.1 RULES AND IMPLEMENTATION

The authority requiring certain projects to undergo a regional emission analysis originates from Section 176 (c) of the 1990 CAA Amendments. The law is codified as Title 23 of the United States Code (23 USC) and known as the Federal Transit Act. The regulations cited to implement 23 USC are contained in 40 CFR 51 and 93. Parts 51 and 93 are commonly recognized as the Transportation Conformity Rule. On August 15, 1997, the Federal Register published a public notice in which the EPA requested to streamline 40 CFR 51 and 93. The final rule issued by the EPA modified 40 CFR 51 and 93 and classified the Transportation Conformity Rule as 40 CFR 51.390 and 40 CFR 93.100-93.128.

The Transportation Conformity Rule requires a regional emissions analysis to be performed by the MPO for projects within its jurisdiction, unless exempt. For the SCAB, the MPO is the SCAG. The regional emissions analysis includes all projects listed in the RTP and Regional Transportation Improvement Program (RTIP). The RTP is a planning document spanning a 25-year period, and the RTIP implements the RTP on a 6-year increment. Both RTP and RTIP must support an affirmative conformity finding to obtain FHWA approval. Projects that are included in the regional analysis are listed in the RTIP and referenced in the RTP. Projects in an RTP and RTIP that have been approved by the FHWA are considered to have met the conformity requirements for regional emissions analyses.

The most currently approved RTP and RTIP is the 2004 RTP and 2006 RTIP. The 2004 RTP was adopted by the SCAG on April 1, 2004. The FHWA approved the 2004 RTP on June 7, 2004. The RTP provides the basic policy and program framework for long-term investment on the regional transportation system in a coordinated, cooperative, and continuous manner. The SCAG is required to develop, maintain, and update the RTP on a three-year cycle.

The 2006 RTIP was approved by the FHWA on October 2, 2006. The 2006 RTIP is a capital listing of all transportation projects proposed over a 6-year period, fiscal years 2006/07-2011/12. This listing identifies specific funding sources and funding amounts for each project. The RTIP projects are consistent with the 2004 RTP. The RTIP is developed to implement the programs and projects in the RTP.

On June 7, 2007, the SCAG Regional Council approved the 2004 RTP Amendment #3 and 2006 RTIP Amendment #8. According to the SCAG, "The 2004 RTP Amendment #3 and 2006 RTIP Amendment #8 comply with all applicable federal and state requirements, including the federally approved SIPs." The 2004 RTP Amendment #3 and 2006 RTIP Amendment #8 were found to conform by the FHWA on June 29, 2007.

4.2 PROJECT INCLUSION IN APPROVED RTP AND RTIP

The proposed project is included in the approved 2004 RTP Amendment #3 and 2006 RTIP Amendment #8. The proposed project is listed in the 2006 RTIP Amendment #8 as an interchange reconfiguration and widening project. Appendix B of this analysis presents project-related RTP and RTIP information. The following project information is excerpted from the 2006 RTIP Amendment:

- Lead Agency – March Joint Powers Authority
- Project ID # – RIV060120
- Air Basin – SCAB
- Program Code – CAYT3
- Route – 215
- Begin Post Mile – 32.3
- End Post Mile – 35.9
- Description – I-215/Van Buren Boulevard Interchange: reconfiguration and widening

SECTION 5 CONSTRUCTION IMPACTS

The proposed project construction would be completed within two years. According to the PM Guidance, construction-related emissions are not required to be included in hot-spot analyses if such emissions are considered temporary (i.e., emissions that occur only during the construction phase and last five years or fewer). The construction-related PM impacts, therefore, are not included in the analysis.

SECTION 6 PROJECT-LEVEL PM ANALYSIS

6.1 OVERVIEW

The proposed project is in the SCAB, and the SCAB is designated by the EPA as nonattainment for the $PM_{2.5}$ and PM_{10} NAAQS. The analysis was prepared following the "Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas" (PM Guidance) developed by the EPA and FHWA (EPA, 2006).

According to the PM Guidance, only projects that are considered "Projects of Air Quality Concern" are required to perform $PM_{2.5}$ and PM_{10} analyses. The SCAG Transportation Conformity Working Group developed an interagency review form to evaluate whether a project is considered a project of air quality concern. Consultation with Caltrans (2006) indicated that in general, a capacity project/lane addition (any type of lane) project on a major freeway in the South Coast area would probably be a project of air quality concern. Although it is not clear that the proposed project would meet the criteria for a project of air quality concern, this PM_{10} and $PM_{2.5}$ analysis has been conducted to conservatively address potential project effects. Communication with the SCAG revealed that there is no need to submit the interagency review form to the Transportation Conformity Working Group if an analysis is planned to be conducted (SCAG, 2006).

The PM Guidance issued by the EPA and FHWA is for qualitative hot-spot analyses. The EPA and FHWA have not issued guideline documents for quantitative PM analyses during the preparation of this analysis. According to the PM Guidance, "Quantitative $PM_{2.5}$ or PM_{10} hot-spot analyses will be required when appropriate methods and modeling guidance are available. Qualitative hot-spot analyses involve more streamlined reviews of local factors such as local monitoring data near a proposed project location."

The EPA and FHWA require that hot-spot analyses under this guidance be based only on directly emitted $PM_{2.5}$ and PM_{10} emissions, but also on re-entrained road dust PM_{10} emissions. The PM Guidance does not require considering $PM_{2.5}$ and PM_{10} precursors in hot-spot analyses. As stated in the PM Guidance, "Secondary particles formed through $PM_{2.5}$ and PM_{10} precursor emissions from a transportation project take several hours to form in the atmosphere, giving emissions time to disperse beyond the immediate project area of concern for localized analyses."

According to the PM Guidance, construction-related emissions are not required to be included in hot-spot analyses if such emissions are considered temporary (i.e., emissions that occur only during the construction phase and last five years or fewer). The proposed project schedule indicated that project construction would be completed within two years, which is less than five years; the construction-related PM impacts, therefore, are not included in the analysis.

6.2 EXISTING CONDITIONS

6.2.1 Existing Ambient $PM_{2.5}$ Levels

The nearest ambient air quality monitoring station is the Riverside-Perris station, approximately eight miles southeast of the project site. This station, however, does not measure $PM_{2.5}$ concentrations. The second-nearest station is the Riverside-Magnolia station, 10 miles northwest of the project site, and this station monitors $PM_{2.5}$ concentrations. The most recent five years (2002 through 2006) of measured $PM_{2.5}$ data at the Riverside-Magnolia station are used to represent the current $PM_{2.5}$ concentration levels in the project vicinity. Table 6-1 presents measured 24-hour $PM_{2.5}$ concentrations at this station for the most recent years (2002 through 2006).

The federal 24-hour standard for $PM_{2.5}$ is based on a 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations; the federal annual standard is based on a 3-year average of annual mean $PM_{2.5}$ concentrations. Note that the federal 24-hour $PM_{2.5}$ standard was changed from 65 to 35 $\mu g/m^3$ on October 17, 2006. According to the EPA (2007), however, transportation conformity for the new 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ does not apply until one year after the effective date of nonattainment designations that consider that standard. Table 6-1 shows that

the $PM_{2.5}$ concentrations monitored in the recent five years do not exceed the NAAQS of 65 μg/m^3, and it reveals a downward trend in the 1-year and 3-year 98th percentile concentrations of 24-hour $PM_{2.5}$ at this station.

Table 6-1
RECORDED 24-HOUR $PM_{2.5}$ CONCENTRATIONS
RIVERSIDE-MAGNOLIA STATION (μg/m^3)

Item	Year				
	2002	2003	2004	2005	2006
First High	75.5	73.3	93.8	94.9	55.3
Second High	69.6	59.5	67.1	49.1	48.2
Third High	63.7	56.2	53.7	41.0	47.7
Fourth High	61.8	55.5	51.0	39.4	44.4
98th Percentile (1-year Average)	63.7	56.2	53.7	-	47.7
98th Percentile (3-year Average)	65	62	58	-	-

Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam accessed September 2006 and May 2007

Table 6-2 provides a summary of annual average and 3-year average $PM_{2.5}$ concentrations recorded at the Riverside-Magnolia monitoring station. The national standard for annual $PM_{2.5}$ is 15 μg/m^3. To attain this standard, the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations must not exceed 15 μg/m^3. As shown in Table 6-2, the measured annual $PM_{2.5}$ concentrations exceed the national standard; however, there is a downward trend for both 1-year and 3-year annual average $PM_{2.5}$ concentrations.

Table 6-2
RECORDED ANNUAL $PM_{2.5}$ CONCENTRATIONS
RIVERSIDE-MAGNOLIA STATION (μg/m^3)

Item	Year				
	2002	2003	2004	2005	2006
Annual Average	27.1	22.6	20.8	17.9	16.9
3-Year Average	26.9	25.9	23.5	20.5	18.6

Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam accessed September 2006 and May 2007

6.2.2 Existing Ambient PM_{10} Levels

The nearest monitoring station that measures ambient PM_{10} concentrations is the Riverside-Perris station, approximately eight miles southeast of the project site. Table 6-3 presents measured maximum concentrations of annual and 24-hour PM_{10} at this station for the most recent years (2002 through 2006). For PM_{10}, the national 24-hour standard is attained when the expected number of days over a calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. Note that the federal annual PM_{10} standard of 50 μg/m^3 was revoked on October 12, 2006. As shown in Table 6-3, the measured PM_{10} concentrations do not exceed the applicable national standards.

Table 6-3
RECORDED PM_{10} CONCENTRATIONS
RIVERSIDE-PERRIS STATION (µg/m^3)

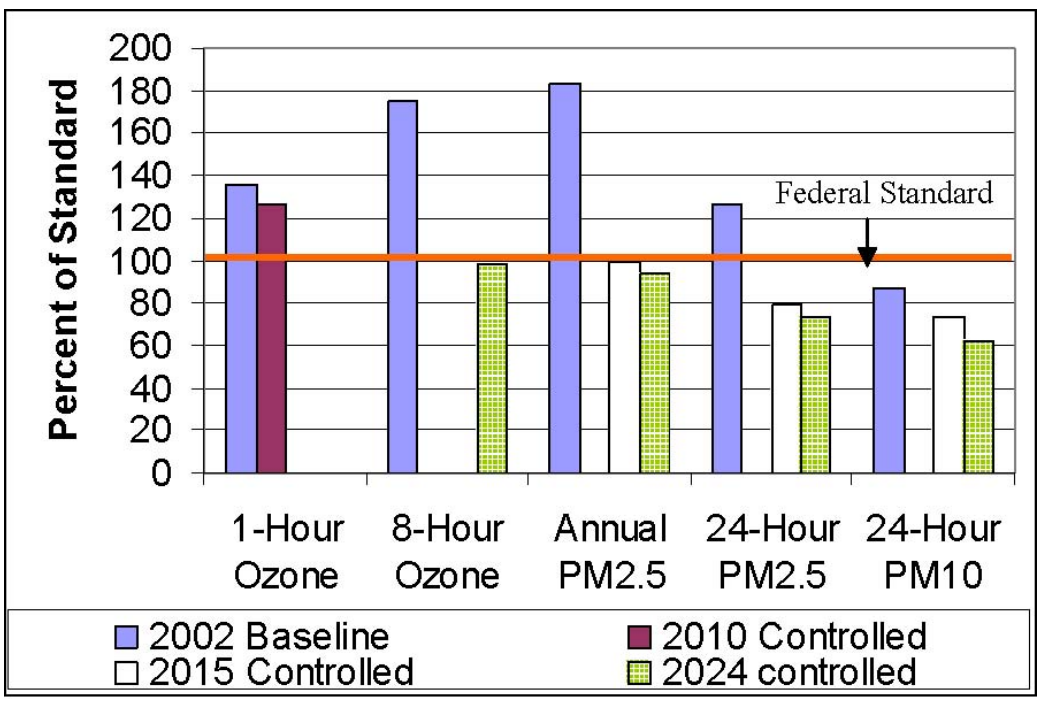
Item	Year				
	2002	2003	2004	2005	2006
Highest 24-Hour Average	100	142	83	80	125
Annual Average	45.1	43.9	41.4	39.1	44.9
3-Year Annual Average	42	43	43	41	42

Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam accessed September 2006 and May 2007
SCAQMD Air Quality web site www.aqmd.gov accessed August 2006

6.3 FUTURE REGIONAL PM EMISSIONS

The SCAB is currently designated nonattainment for the $PM_{2.5}$ and PM_{10} NAAQS. Under the CAA, the SCAB must comply with the federal $PM_{2.5}$ NAAQS by April 2010. An extension of up to five years could be granted if attainment cannot be demonstrated and all feasible measures have been adopted and incorporated. The SCAB currently meets the 24-hour federal PM_{10} standard. Note that the EPA revoked the federal annual PM_{10} standard on October 17, 2006. To understand future air quality trends, the 2007 AQMP includes modeling studies that project future air pollutant emissions, including PM emissions, for the SCAB for the years 2010, 2015, and 2024. The following figure (Figure 6-1) was excerpted from the 2007 AQMP.

Figure 6-1
PROJECTION OF FUTURE AIR QUALITY IN THE SCAB IN COMPARISON WITH THE MOST STRINGENT FEDERAL STANDARDS



Source: SCAQMD 2007 AQMP

Figure 6-1 shows a downward trend of PM_{10} and $PM_{2.5}$ emissions in the SCAB after implementation of the 2007 AQMP.

6.4 PROJECT TRAFFIC DATA AND EMISSIONS

The traffic analysis for the proposed project estimated average daily traffic (ADT) volumes for 2013 (project design year, or project open year) and 2035 (horizon year) (KHA, 2007). As described in the previous subsection, the proposed project is within 10 miles of two air quality monitoring stations: Riverside-Magnolia Station and Riverside-Perris Station. Table 6-4 shows the predicted ADT data for 2013 under the No Build Alternative and two project alternatives. The predicted ADT data for 2035 are presented in Table 6-5.

The traffic analysis assumed that on freeway segments, approximately 10 percent of total vehicles would be trucks; on local roads (ramps), approximately five percent of total vehicles would be trucks. Tables 6-4 and Table 6-5 also show the predicted daily truck volumes under the No Build Alternative and two project alternatives for 2013 and 2035, respectively.

Table 6-4
FORECASTED TRAFFIC VOLUMES – 2013

Roadway Segment	2013 No-Build and Project Alternatives (2A and 2E)			
	Total ADT	ADT without Trucks	Truck ADT	Truck Percentage (%)
I-215 NB	74,100	66,690	7,410	10%
I-215 SB	73,600	66,240	7,360	10%
I-215 NB Off-Ramp	13,130	12,474	657	5%
I-215 NB On-Ramp	10,250	9,738	513	5%
I-215 NB WB to NB On-Ramp	400	380	20	5%
I-215 NB EB to NB On-Ramp	9,850	9,358	493	5%
I-215 SB Off-Ramp	8,600	8,170	430	5%
I-215 SB On-Ramp	10,400	9,880	520	5%

Source: Traffic Analysis (KHA, 2007).

Table 6-5
FORECASTED TRAFFIC VOLUMES – 2035

Roadway Segment	2035 No-Build and Project Alternatives (2A and 2E)			
	Total ADT	ADT without Trucks	Truck ADT	Truck Percentage (%)
I-215 NB	96,800	87,120	9,680	10%
I-215 SB	102,100	91,890	10,210	10%
I-215 NB Off-Ramp	17,500	16,625	875	5%
I-215 NB On-Ramp	11,000	10,450	550	5%
I-215 NB WB to NB On-Ramp	800	760	40	5%
I-215 NB EB to NB On-Ramp	10,200	9,690	510	5%
I-215 SB Off-Ramp	16,700	15,865	835	5%
I-215 SB On-Ramp	23,500	22,325	1,175	5%

Source: Traffic Analysis (KHA, 2007).

As shown in Tables 6-4 and 6-5, the traffic volumes are identical for the No Build Alternative and project alternatives, which indicates that the proposed project would not result in traffic increases in the project area.

The congestion level for an intersection or a roadway segment is expressed in terms of Level of Service (LOS). LOS is designated by a letter from A to F, with A representing the best operating conditions and LOS F the worst. The traffic

analysis estimated LOS for the No Build Alternative and two project alternatives. Table 6-6 displays the estimated peak-hour LOS at two intersections that would be affected by the proposed project. As shown in Table 6-6, these two intersections are operating at LOS E or F under existing conditions. Under the No Build conditions in 2013 and 2035, both intersections would operate at LOS F. With construction of the proposed project alternatives (Alternatives 2A and 2E), operations of these intersections would be improved to LOS C or better.

Table 6-6
ESTIMATED PEAK-HOUR INTERSECTION LEVEL OF SERVICE

Intersection		Peak Hour	2006 Existing	2013 No Build	2013 Alternative 2A Alternative 2E	2035 No Build	2035 Alternative 2A Alternative 2E
1	I-215 SB Ramp and Van Buren Blvd	AM	F	F	A	F	B
		PM	F	F	A	F	B
2	I-215 NB Ramp and Van Buren Blvd	AM	E	F	A	F	C
		PM	E	F	A	F	C

Source: Traffic Analysis (KHA, 2007).

The estimated LOS data for roadway segments are presented in Table 6-7. Comparing the LOS data for the same analysis year indicated that the LOS of project-related roadway segments would be the same or better under the project alternatives than those under the No Build Alternative. The proposed project would therefore relieve traffic congestion levels with new configurations to improve traffic flow.

Table 6-7
ESTIMATED PEAK-HOUR ROADWAY SEGMENTS LEVEL OF SERVICE

Roadway Segment	Peak Hour	2006 Existing	2013 No Build	2013 Alternative 2A Alternative 2E	2035 No Build	2035 Alternative 2A Alternative 2E
I-215 NB						
Oleander Ave. to Van Buren Blvd. NB Off-Ramp	AM	D	E	E	F	D
	PM	C	D	D	E	D
Van Buren Blvd. NB Off-Ramp to Van Buren Blvd. NB On-Ramp	AM	C	D	D	D	D
	PM	C	D	D	D	D
Van Buren Blvd. NB On-Ramp to Cactus Ave.	AM	D	E	D	F	D
	PM	C	D	C	F	D
I-215 SB						
Cactus Ave. to Van Buren Blvd. SB Off-Ramp	AM	B	C	B	D	C
	PM	C	E	C	F	E
Van Buren Blvd. SB Off-Ramp to Van Buren Blvd. SB On-Ramp	AM	B	B	B	C	C
	PM	C	D	D	E	E
Van Buren Blvd. SB On-Ramp to Oleander Ave.	AM	B	C	C	D	C
	PM	D	E	E	F	D

Source: Traffic Analysis (KHA, 2007).

Direct PM emissions would be associated with vehicle miles traveled (VMT) and vehicle speeds, and re-entrained road dust emissions would be related to vehicle VMT and roadway types. The proposed project is anticipated in resulting in minor VMT increases compared to those predicted for the No Build Alternative. However, the proposed project would improve traffic flow, reduce vehicle idling time, and increase vehicle speeds, which would help reduce direct PM emissions from vehicles. As described previously, there would be substantial reductions in PM emissions in the region (Figure 6-1). Combined with the projected PM emission reductions in the region and the project's benefits on traffic operations described above, PM emissions in the project area would likely be lower in the future.

SECTION 7 CONCLUSIONS

Transportation conformity is required under CAA Section 176(c) to ensure that federally supported highway and transit project activities are consistent with the purpose of the SIP. Conformity to the purpose of the SIP means that transportation activities would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS.

Historical meteorological and climatic data support that the regional and local meteorological and climatic conditions have been relatively consistent within the last 40 years, and the consistency would likely be anticipated until the horizon year of 2035. Additionally, no significant changes to the current general terrain and geographic locations of the proposed project in relation to the SCAB area are anticipated.

Based on the recent air quality data recorded at two monitoring stations, there is a declining trend of background $PM_{2.5}$ concentrations in the project vicinity. The measured 24-hour PM_{10} concentrations in the most recent five years do not exceed the applicable national standard. The modeling studies conducted in the 2007 AQMP show a downward trend of future PM emissions in the region.

The traffic volumes estimated for the proposed project and the No Build Alternative are the same, and the proposed project would improve traffic flow. Furthermore, federal regulations and the state's diesel risk-reduction plan will require future diesel vehicles to have substantially cleaner engines and to use fuels with lower sulfur contents, which would result in reductions in diesel truck $PM_{2.5}$ and PM_{10} exhaust emissions in the region.

The proposed project, therefore, meets the conformity hot-spot requirements specified in the transportation conformity rule. The proposed project would not cause or contribute to any new localized PM violations or increase the frequency or severity of any existing PM violations in the SCAB.

SECTION 8 REFERENCES

California Air Resources Board, 2007. www.arb.ca.gov, Historical Air Quality Data Summary and Ambient Air Quality Standards and Area Designations, and Entrained Paved Road Dust - Paved Road Travel.

2002. www.arb.ca.gov, Glossary of Air Pollution Terms.

California Department of Transportation, 2006. Communications with Michael Brady, Air Quality/Conformity Coordinator.

Kimley-Horn and Associates, Inc., 2007. Traffic Operational Analysis – I-215/Van Buren Boulevard Interchange.

Southern California Association of Governments, 2006. Communications with Jonathan Nadler, Program Manager, Air Quality and Conformity.

South Coast Air Quality Management District, 2007. www.aqmd.gov, Draft Final 2007 Air Quality Management Plan.

2006. www.aqmd.gov, Air Quality Data.

U.S. Environmental Protection Agency, 2007. Transportation Conformity and the Revised 24-hour $PM_{2.5}$ Standard, April.

2006. Transportation Conformity Guidance for Qualitative Hot-spot Analysis in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas, March.

2005. The Plain English Guide to the Clean Air Act, April.

Western Regional Climate Center, 2006. Climate Data Summary, Riverside, California.

Traffic Operational Analysis

I-215/Van Buren Boulevard Interchange

August 2007

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1.0 INTRODUCTION

This study evaluates the traffic operational analysis associated with the proposed alternatives to reconfigure the existing I-215/Van Buren Boulevard Interchange. In addition, this study will recommend additional improvements that may be required in order to achieve acceptable traffic operations.

The purpose of this project is to mitigate the projected traffic increases at the I-215/Van Buren Boulevard interchange. Currently, there are existing capacity and operational deficiencies at the interchange, which is the result of the rapidly increasing traffic demand generated by the accelerated growth and development that is taking place in Riverside County, especially in the cities of Riverside, Moreno Valley, Perris and other nearby cities. Several large residential and commercial developments are either under construction or in various stages of development, which are expected to generate traffic volumes in excess of what the existing Van Buren Boulevard and the interchange with I-215 can accommodate.

Project Description

The I-215/Van Buren Boulevard interchange is located in the County of Riverside at PM 34.25. **Figure 1-1** depicts the location of the project in a regional context. Cactus Avenue is located approximately 1.6 miles to the north and Oleander Avenue is located approximately 1.9 miles to the south. **Figure 1-2** shows the location of the study area including the limits of the traffic analyses.

Improvements included in the project consist of reconfiguration of the interchange, realignment of I-215, bridge replacement, and local street improvements. Two viable alternatives are being considered for this project, which will be referred to as Alternatives 2A and 2E. Both alternatives propose to replace the existing tight diamond interchange with a modified cloverleaf interchange at Van Buren Boulevard. The new interchange requires Van Buren Boulevard to have a six-lane bridge structure over the Burlington National Santa Fe (BNSF) Railroad and I-215 main lanes. Van Buren Boulevard to the east of I-215 will be extended southbound as a frontage road along March Air Reserve Base (MARB) and will consist of four-lanes. Based on Riverside County Circulation Plan, Van Buren Boulevard is classified as an urban arterial to the west of I-215 and a collector east of I-215. Improvements also include realignment of all ramps in the northbound and southbound directions. I-215 will have three lanes in each direction, with a median wide enough to accommodate future widening to its ultimate configuration.

Figure 1-3 shows the Alternative 2A design and **Figure 1-4** shows the Alternative 2E design. As seen in the figures, the variation between the two alternatives involves the alignment and configuration of the ramps at the I-215/Van Buren Boulevard interchange.

The primary operational difference in the alternatives is the design of the Eastbound Van Buren Boulevard to Northbound I-215 On-Ramp. The ramp in Alternative 2A is designed as a loop ramp, which connects Van Buren Boulevard and functions as a free movement to avoid the intersection with the Northbound I-215 Off-Ramp. This ramp with this alternative provides two general purpose lanes. The ramp in Alternative 2E is designed as a partial loop ramp, which connects Van Buren Boulevard at the intersection of the Northbound I-215 Off-Ramp. This is also considered a free movement. The ramp with this alternative provides two general purpose lanes and a HOV lane. The difference in length of the ramp between the two alternatives affects the ramp metering analysis, as Alternative 2E has additional queue storage capacity. Since the ramp in both alternatives involves free movements, the only difference in the traffic analysis is related to the ramp metering analysis.

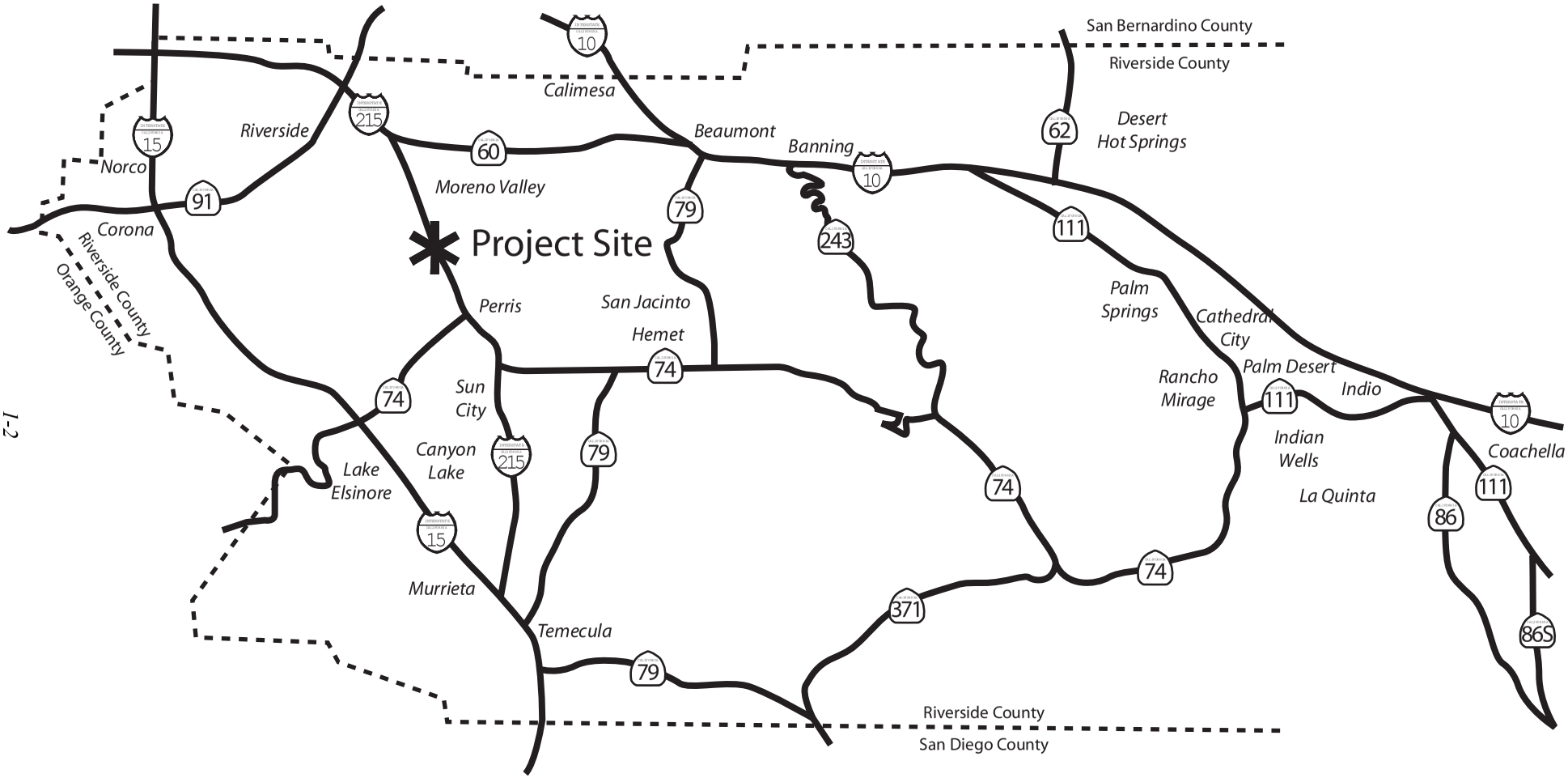

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FIGURE 1-1
Regional Vicinity Map

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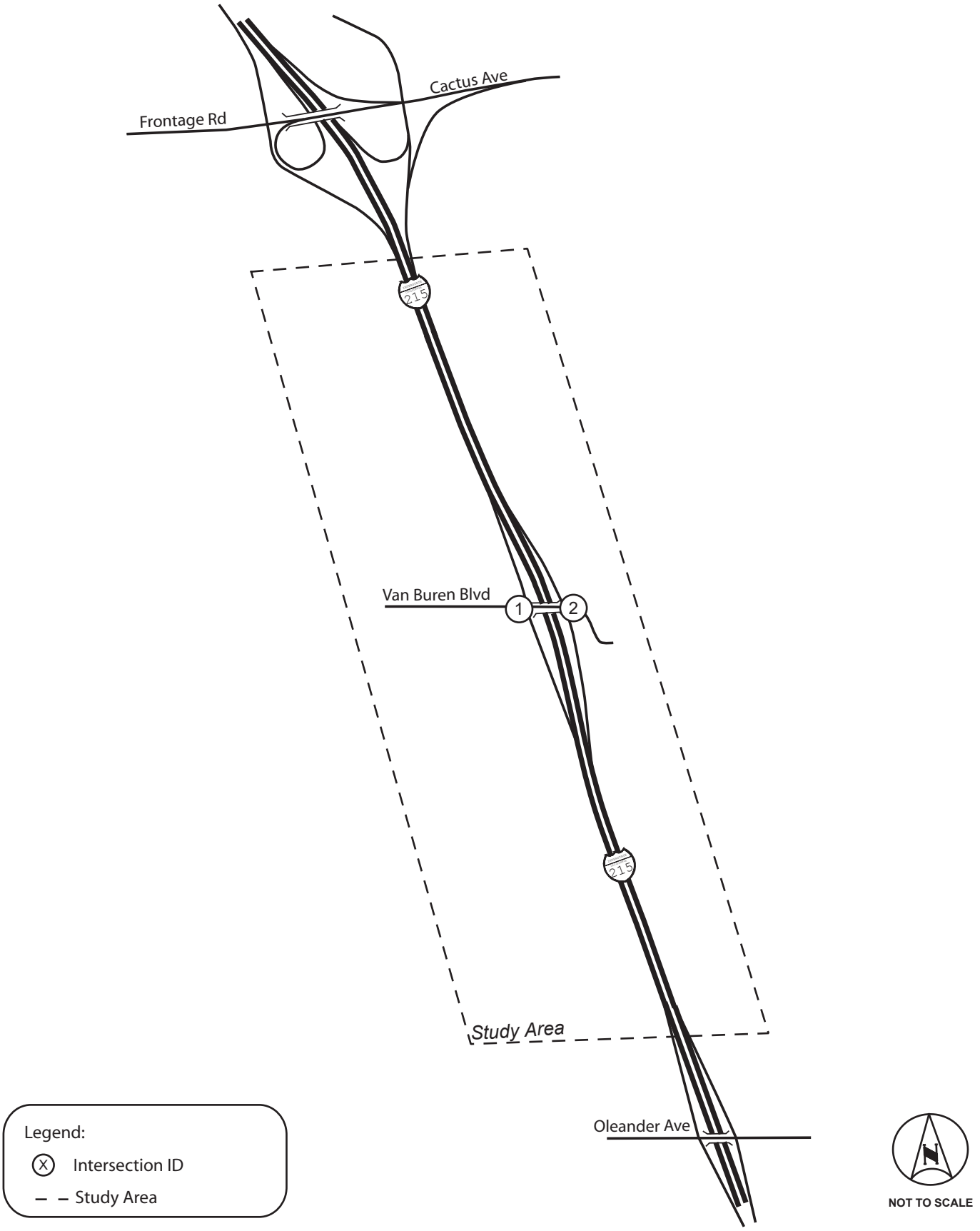
Cactus Ave
Frontage Rd
215
Van Buren Blvd
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2
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Study Area
Oleander Ave
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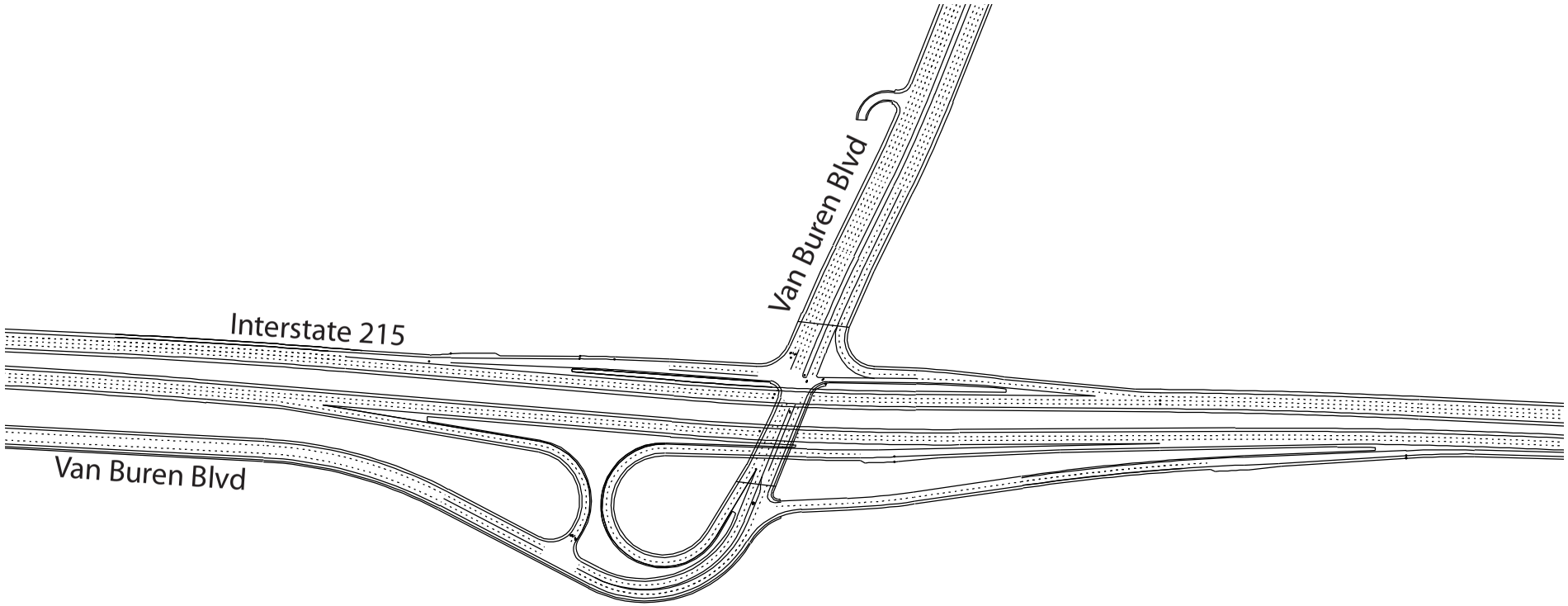

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FIGURE 1-3

Alternative 2A Design

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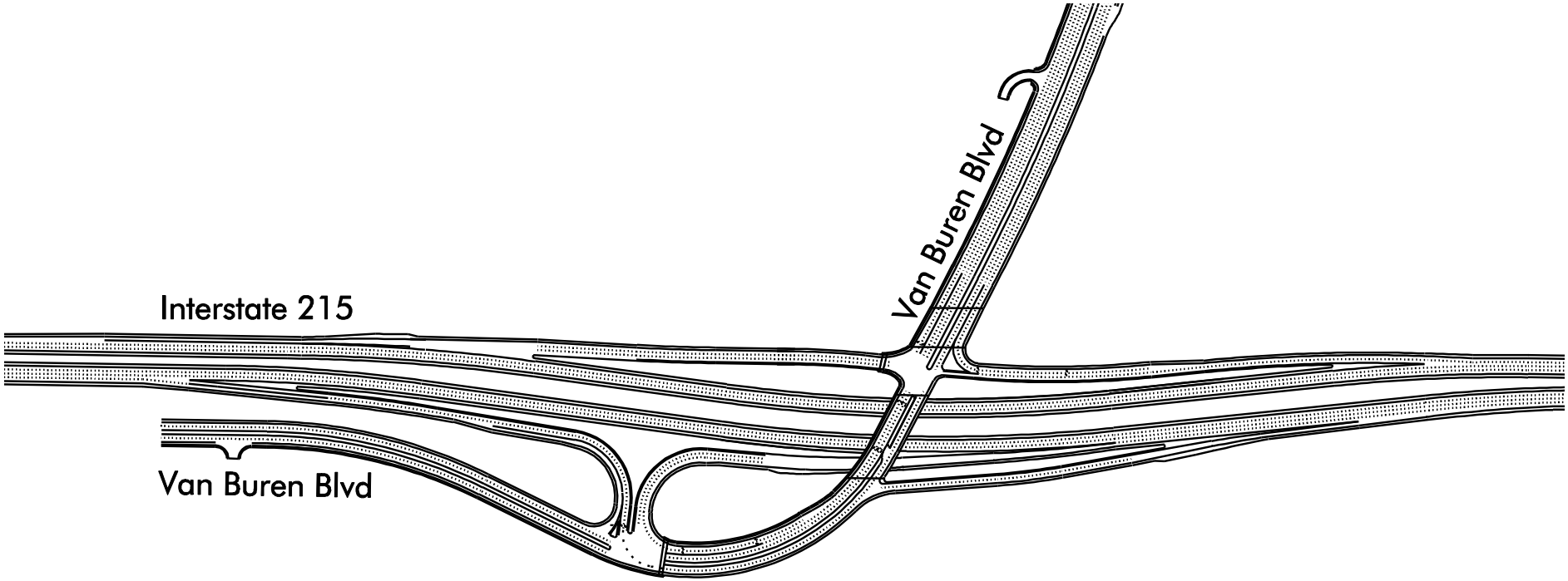

NOT TO SCALE

Kimley-Horn
and Associates, Inc.

FIGURE 1-4

Alternative 2E Design

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Another important difference in the alternatives is the Van Buren Boulevard to Southbound I-215 On-Ramp. The ramp is longer in Alternative 2E and has additional queue storage capacity for the ramp metering analysis.

Despite variations in the designs, from a traffic analysis viewpoint, Alternative 2A and Alternative 2E are nearly identical, with differences only arising in the ramp metering analysis due to changes in the lengths of the I-215 on-ramps. As a result, Alternative 2A and Alternative 2E will both be referred to as Alternative 2 where a distinction of the two alternatives is not necessary.

Analysis Scenarios

The following three scenarios were analyzed as part of the project:

Existing Conditions (2006)

- Existing Conditions: Represents the traffic conditions of the existing transportation network. Ramp metering analysis will not be provided in this scenario since ramp meters do not exist.

Horizon Year (2013)

- Year 2013 No-Build scenario: Represents the traffic conditions of the street network assumed to be in place in the Year 2013. The Year 2013 was selected to represent the year that the interchange would be completed. While traffic volumes would increase, no physical improvements would be made to either I-215 or Van Buren Boulevard in the Year 2013 No-Build scenario.
- Year 2013 Alternative 2 scenario: Represents the traffic conditions for the Alternative 2 scenario in the Year 2013. This alternative is based on the design as proposed in the Project Study Report (PSR). Slight variations in the design (referred to as Alternatives 2A and 2E) will be analyzed for this scenario, though the traffic analysis of the two alternatives will be nearly identical and will only be distinguished in this report when necessary. The freeway mainline analysis assumes no freeway mainline improvements would be made by 2013, with the exception of an auxiliary lane between the Cactus Avenue and Van Buren Boulevard interchanges in both directions.

Horizon Year (2035)

- Year 2035 Baseline scenario: Represents the traffic conditions of the street network assumed to be in place under horizon year conditions, which consists of the addition of a general purpose lane and a high occupancy vehicle (HOV) lane in each direction along I-215 for a total of eight general purpose lanes and two HOV lanes (8+2). The 8+2 HOV lane scenario assumes the ultimate cross section of I-215 in the study area based on the approved Transportation Corridor Report, dated August 17, 1999. The Year 2035 was selected to represent the build-out of the area and is consistent with the latest traffic model forecasts.
- Year 2035 Alternative 2 scenario: Represents the horizon year traffic conditions for the Alternative 2 scenario. This alternative is based on the design as proposed in the PSR. Slight variations in the design (referred to as Alternatives 2A and 2E) will be analyzed for this scenario, though the traffic analysis of the two alternatives will be nearly identical and will only be distinguished in this report when necessary. Traffic volumes are identical between the Baseline and the Alternative 2 analyses.

FINAL

2004 REGIONAL TRANSPORTATION PLAN

AMENDMENT #3

June 7, 2007

SOUTHERN CALIFORNIA

ASSOCIATION of GOVERNMENTS

MISSION STATEMENT
REGIONAL COUNCIL MEMBERS

Leadership
Vision
Progress

***Leadership*, *vision* and *progress* which promote economic growth, personal well-being, and livable communities for all Southern Californians.**

The Association will accomplish this Mission by:

- Developing long-range regional plans and strategies that provide for efficient movement of people, goods and information; enhance economic growth and international trade; and improve the environment and quality of life.
- Providing quality information services and analysis for the region.
- Using an inclusive decision-making process that resolves conflicts and encourages trust.
- Creating an educational and work environment that cultivates creativity, initiative, and opportunity.

Funding: The preparation of this report was financed in part through grants from the United States Department of Transportation – Federal Highway Administration and the Federal Transit Administration – under provisions of the Transportation Equity Act for the 21st Century (TEA-21). Additional financial assistance was provided by the California State Department of Transportation.

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Ventura County Transportation Commission: Keith Millhouse, Moorpark

6.06.07

Southern California **Association of Governments**
818 West 7th Street, 12th Floor, Los Angeles, California 90017-3435 213. 236.1800 www.scag.ca.gov

RESOLUTION No. 07-488-1

RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS APPROVING FINAL AMENDMENT NO. 3 TO THE 2004 REGIONAL TRANSPORTATION PLAN (2004 RTP), FINAL AMENDMENT NO. 8 TO THE 2006 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (2006 RTIP) AND THE CORRESPONDING ADDENDUM TO THE 2004 RTP PROGRAM ENVIRONMENTAL IMPACT REPORT AND CONFORMITY DETERMINATION

WHEREAS, the Southern California Association of Governments (SCAG) is the federally designated Metropolitan Planning Organization (MPO) pursuant to 23 U.S.C. §134(a) and (g) for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura, and as such, is responsible for the preparation, adoption and regular revision of the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) pursuant to 23 U.S.C. §§134(g) 49 U.S.C. §5303(f) and 23 C.F.R. §450.312;

WHEREAS, also pursuant to Section 130004 of the California Public Utilities Code, SCAG is the designated Regional Transportation Planning Agency and, as such, is responsible for preparation of both the RTP and RTIP under California Government Code §§ 65080 and 65082 respectively;

WHEREAS, 23 U.S.C. § 134(h)(3)(C) and 23 C.F.R. § 450.324(f)(2) requires the 2006 RTIP to be consistent with the 2004 RTP;

WHEREAS, 23 U.S.C. § 134(a), 49 U.S.C. § 5301 *et seq.*, 23 CFR § 450.312, and 49 CFR § 613.100 require SCAG, as the designated MPO, to maintain a continuing, cooperative and comprehensive transportation planning process in its development of the RTP and RTIP;

WHEREAS, pursuant to 23 C.F.R. §450.316(b)(1)(iv), SCAG must provide adequate public notice of public involvement activities and time for public review and comment at key decision points, including approval of plans and transportation improvement programs (the applicable comment period shall be at least 30 days for the plan, transportation improvement program and major amendment(s));

WHEREAS, on April 1, 2004, SCAG approved and adopted the 2004 RTP, and on June 7, 2004, the federal agencies found that the 2004 RTP conforms to the applicable State Implementation Plan (SIP);

WHEREAS, on July 27, 2006, SCAG approved and adopted the 2006 RTIP, and on October 2, 2006, the federal agencies found that the 2006 RTIP conforms to the applicable SIP;

WHEREAS, on February 2, 2006, SCAG approved and adopted an Amendment to the 2004 RTP to replace the CenterLine and Yorba Linda Metrolink Station Transportation Control Measures (TCMs) with four substitute TCMs and to revise the scope of the Foothill Transportation-Corridor South/SR-241 toll road project;

WHEREAS, on July 27, 2006, SCAG approved and adopted a second Amendment to the 2004 RTP to add the sbX E Street bus rapid transit project;

WHEREAS, on October 2, 2006, the federal agencies found that the 2004 RTP, as amended on February 2, 2006 and July 27, 2006, conforms to the applicable SIP;

WHEREAS, on November 7, 2006, the voters of the state of California approved Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, and this Act created a Corridor Mobility Improvement Account (CMIA) to fund performance improvements on highly congested highway corridors, and this Act also created the Transportation Facilities Account (TFA) to augment funding for the State Transportation Improvement Program (STIP);

WHEREAS, on February 28, 2007, the California Transportation Commission (CTC) adopted a $4.5 billion program of projects for the CMIA, and on June 7, 2007, the CTC intends to take action on a $2 billion augmentation to the 2006 STIP, and together these actions result in new projects and revisions to existing projects in the adopted 2004 RTP and 2006 RTIP;

WHEREAS, SCAG has also received requests from the local county transportation commissions and California Department of Transportation (Caltrans) for other project additions or modifications to the 2004 RTP and 2006 RTIP;

WHEREAS, on January 30, 2007, February 27, 2007, March 27, 2007, and April 24, 2007, the proposed RTP and RTIP amendments to address the CTC actions and local requests were discussed at the Transportation Conformity Working Group, SCAG's forum to support interagency coordination to help improve air quality and maintain transportation conformity in Southern California;

WHEREAS, on or about April 1, 2007, SCAG staff prepared the "Draft 2004 RTP Amendment #3" and the "Draft 2006 RTIP Amendment #8" ("RTP/RTIP Amendments"), including the staff findings, in order to address the CTC action and local requests;

WHEREAS, the conformity findings included in the "Draft 2004 RTP Amendment #3" are also applicable to the "Draft 2006 RTIP Amendment #8";

WHEREAS, on May 3, 2007, SCAG's Executive Committee (EC) approved the release of the Draft RTP/RTIP Amendments for a 30-day public review and comment period;

WHEREAS, a Notice of Availability and Public Hearing was posted on the SCAG website at www.scag.ca.gov on May 3, 2007 and published in major newspapers in the six-county region, the Draft RTP/RTIP Amendments were made available on the SCAG website, and copies were provided for review at SCAG and at public libraries throughout the region;

WHEREAS, a public hearing for the Draft RTP/RTIP Amendments was held at SCAG on May 21, 2007;

WHEREAS, to the extent that SCAG has received any written comments on the Draft RTP/RTIP Amendments, those comments have been responded, and those comment along with responses are summarized in the Final RTP/RTIP Amendments;

WHEREAS, amendments to the RTP must be consistent with the December 1999 RTP Guidelines and 2003 Supplement to the RTP Guidelines prepared by the California Transportation Commission;

WHEREAS, SCAG has complied with all applicable federal and state requirements in developing the RTP/RTIP Amendments, including, but not limited to:

(1) TEA 21 (23 U.S.C. § 134, *et seq.*)

(2) The Metropolitan planning regulations at 23 C.F.R. § 450 *et seq*;

(3) Government Code Section 65080 *et.seq;*

(4) Sections 174 and 176(c) and (d) of the Clean Air Act [42 U.S.C. §§ 7504, 7506(c) and (d)];

(5) The Environmental Protection Agency (EPA) Transportation Conformity Rule at 40 CFR Parts 51 and 93 (August 15, 1997) and all associated courts rulings and federal guidance.

(6) Title VI of Thc Civil Rights Acts of 1964 and the Title VI assurance executed by each State under 23 U.S.C. § 324 and 29 U.S.C. § 794;

(7) Title II of the American with Disabilities Act of 1990 (42 U.S.C. § 120001 *et seq.*) and U.S. DOT regulations "Transportation for Individuals with Disabilities" (49 CFR Parts 27, 37, and 38); and

(8) The Department of Transportation's Final Environmental Justice Order, enacted pursuant to Executive Order 12898, which seeks to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment and requirements set forth in U.S.D.O.T. Order 5610.2, FHWA Order 6640.23 and 23 C.F.R. § 450.316(b)(ii).

WHEREAS, pursuant to Section 176(c) of the Federal Clean Air Act (42 U.S.C. §7506(c)), no project may receive Federal funding unless it comes from an RTP which has been found to conform to the applicable SIP;

WHEREAS, as required by 23 C.F.R. §450.322(d), in nonattainment and maintenance areas for transportation-related pollutants, SCAG, the FHWA and the FTA must make a conformity determination on any RTP/RTIP updates or amendments in accordance with the requirements of the Federal Clean Air Act (42 U.S.C. §7401 et seq.) and the Environmental Protection Agency (EPA) conformity regulations found at 40 C.F.R. Part 51;

WHEREAS, with approval of the RTP/RTIP Amendments, all South Coast Air

Basin TCM projects in the federally approved conforming 2004 RTP and 2006 RTIP are given funding priority and are on schedule for timely implementation;

WHEREAS, the 2004 RTP and 2006 RTIP remain financially constrained for all fiscal years after the project additions and revisions described in the RTP/RTIP Amendments;

WHEREAS, SCAG is required to comply with the California Environmental Quality Act ("CEQA") [Cal. Pub. Res. Code § 21000 et seq.] in amending the RTP;

WHEREAS, SCAG adopted and certified the Program Environmental Impact Report (PEIR) to the 2004 RTP in April 2004;

WHEREAS, when an EIR has been certified and the project is modified or otherwise changed after certification, then additional CEQA review may be necessary;

WHEREAS, an Addendum may be prepared by the Lead Agency that prepared the original EIR if some changes or additions are necessary, but none of the conditions have occurred requiring preparation of a Subsequent EIR (CEQA Guidelines Section 15164(a), Cal. Administrative Code, Title 14);

WHEREAS, for the reasons set forth in the Addendum to the 2004 PEIR, SCAG determined that an Addendum to the 2004 PEIR is the appropriate CEQA document because the proposed changes to the 2004 RTP do not meet the conditions of CEQA Guidelines Section 15162(a) for preparation of a Subsequent EIR;

WHEREAS, SCAG prepared an Addendum to the 2004 PEIR, which is included in the 2004 RTP Amendment #3, in order to address the modifications to the 2004 RTP due to the CMIA program, STIP Augmentation, and requests from the local agencies;

WHEREAS, SCAG determined that adoption of the proposed RTP Amendment #3 would not result in either new environmental significant effects or a substantial increase in the severity of previously identified significant effects;

NOW, THEREFORE BE IT RESOLVED that:

1. The Southern California Association of Governments finds and adopts as follows:

    a. The 2004 RTP Amendment #3 and 2006 RTIP Amendment #8 comply with all applicable federal and state requirements, including the federally approved SIPs;

    b. Upon approval of the RTP/RTIP Amendments, all TCM projects in the South Coast Air Basin and Ventura County portion of the South Central Coast Air Basin in the federally approved conforming 2004 RTP and 2006 RTIP are given funding priority and are on schedule for timely implementation;

c. The 2004 RTP and 2006 RTIP as amended have been found to conform to the applicable SIP in accordance with the Clean Air Act and EPA conformity regulations; and

d. Proposed changes to the 2004 RTP as expressed in the 2004 RTP Amendment #3 are not substantial changes which would require major revisions to the PEIR, and the Addendum to the PEIR for the 2004 RTP fulfills SCAG's requirements for CEQA compliance, thus, no further CEQA document is required.

2. Incorporating all the foregoing recitals and findings, the Regional Council hereby approves and adopts the Final 2004 RTP Amendment #3 and Final 2006 RTIP Amendment #8, including the PEIR Addendum and conformity findings.

3. SCAG's Executive Director or his designee is authorized to transmit the RTP/RTIP Amendments and associated conformity finding to the Federal Transit Administration and the Federal Highway Administration to make the final conformity determination in accordance with the Federal Clean Air Act and EPA Transportation Conformity Rule at 40 C.F.R. Parts 51 and 93.

Approved at a regular meeting of the Regional Council of the Southern California Association of Governments on this 7th day of June 2007.

GARY OVITT
President
Supervisor, County of San Bernardino

Attest:

MARK A. PISANO
Executive Director

Approved as to Form:

JOANN AFRICA
Interim Director of Legal Services

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INTRODUCTION

The Southern California Association of Governments (SCAG) is the designated Metropolitan Planning Organization (MPO) for six counties in Southern California, including Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. As the MPO, SCAG is required to develop and update the Regional Transportation Plan (RTP). The RTP is a long-range plan that identifies multi-modal regional transportation needs and investments out to the plan horizon year of 2030.

SCAG adopted the current operating 2004 RTP on April 1, 2004 (resolution #04-451-2). The 2004 RTP was subsequently amended on February 2, 2006 (resolution #06-471-3), and a second time on July 27, 2006 (resolution #06-477-1). The RTP was developed in a comprehensive, cooperative, and continuing process that involved a broad spectrum of stakeholders including federal, state and local agencies, as well as members of the public, as required under the Transportation Equity Act for the 21st Century (TEA-21).

The replacement of TEA-21 with the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) in 2005 established a number of new requirements for MPO's with respect to developing and updating the RTP. Pursuant to the new SAFETEA-LU requirements, SCAG has proceeded with due diligence to bring the existing 2004 RTP into compliance. As such, the Administrative Amendment to the 2004 RTP (Gap Analysis) that was adopted by SCAG on March 1, 2007 with the intent to bring the current RTP into compliance with SAFETEA-LU. The Administrative Amendment to the 2004 RTP is currently under review by FHWA/FTA. Given that the current RTP has not been deemed SAFETEA-LU compliant at the time of completing this document, this amendment should be reviewed under the old statute (TEA-21). The statutory deadline for certifying an amendment to the existing RTP is July 1, 2007.

This third amendment to the 2004 RTP is in response to recent developments in California's transportation funding allocations. Moreover, the Amendment is intended to ensure that all the projects included can move forward in a timely manner. In November of 2006, the voters of California approved Proposition 1B, a $20 billion state bond measure to support much needed transportation infrastructure improvements throughout the state. $4.5 billion was set aside from Proposition 1B for the Corridor Mobility Improvement Account (CMIA), which focuses on improving mobility, connectivity and safety on major California highways. This RTP Amendment is in part a response to the CMIA program that was adopted by the California Transportation Commission (CTC) on February 28, 2007. While most of the projects approved for CMIA funding are consistent with the 2004 RTP, inevitably, there are a number of projects that require amendment to the current RTP. This amendment also includes non-CMIA projects that are time sensitive in nature. These projects are funded through a variety of existing sources, including the Highway Bridge Rehabilitation and Replacement (HBRR) Program; the State Transportation Improvement Program Augmentation funds (STIP Augmentation), and the State Highway Operation and Protection Program (SHOPP).

The purpose of this document is to identify the specific details of the 2004 RTP Amendment and to ensure that the proposed changes are consistent with federal and state requirements, including the TEA-21 planning requirements and the Transportation Conformity Rule. All associated analyses for the Amendment are incorporated into this document. It is also important to note that the conformity findings included in this document are applicable for the 2004 RTP Amendment as well as the 2006 Regional Transportation Implementation Program (RTIP) Amendment # 06-08.

PROJECT DESCRIPTIONS

The project changes proposed under this Amendment are presented in this document for Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. The reasons for amending each of the projects can be broadly categorized as follows:

- Project is **new** and currently not in the 2004 RTP
- Project currently exists in the 2004 RTP but,
    - has a **revised scope,**
    - has a **revised schedule,**
    - has a **change in total cost,** or
    - includes **any combination of the above** changes.

Descriptions of major projects for each of the counties are provided to highlight the general scope of this Amendment. The locations of projects are depicted in Exhibits 1-5 for ready reference. Project Summary Tables are organized to provide a complete list of the projects for each county and to document the details of the changes from the current plan. In addition, the summary tables are also intended to illustrate a before and after picture for each of the projects.

RIVERSIDE COUNTY

Major Regional Projects

I-215 HOV Lane Additions from Nuevo to Box Springs

New Project

RTP/RTIP Project No. 3H07A
Completion Date: 2013

This project will construct one HOV lane in each direction on I-215 from Nuevo to Box Springs. See *Figure 7.*

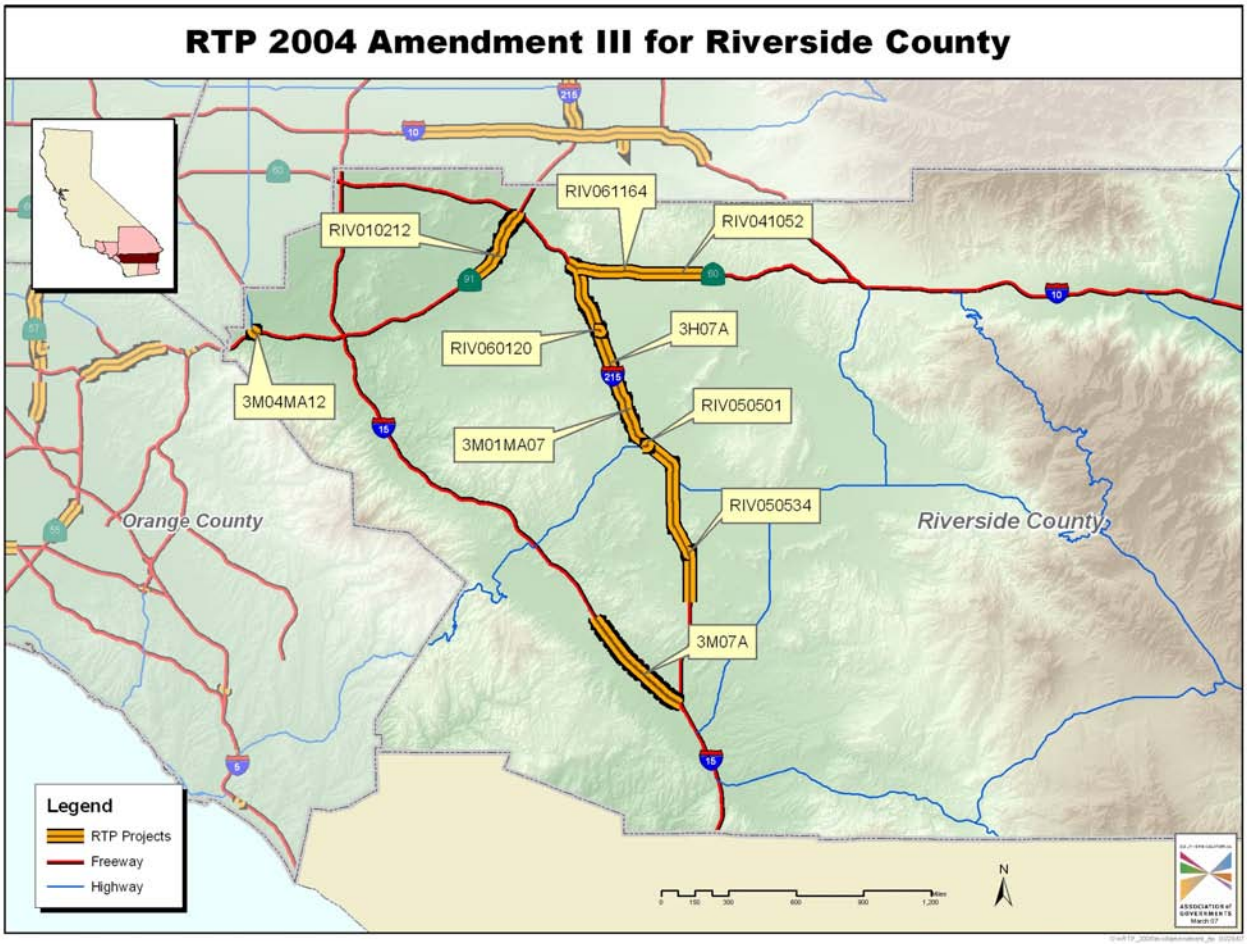
SR-91 HOV Lane Addition from Adams to SR-60/I-215 IC

RTP/RTIP Project No. RIV010212
CTC Adopted CMIA Project

Current Completion Date: 2013
Revised Completion Date: 2014

This project will add HOV lanes on SR-91 from Adams to the SR-60/I-215 IC. It will also include the addition of auxiliary lanes from Madison to Central, bridge widening and replacements, EB/WB braided ramps, IC modifications/reconstruction and sound retaining walls. See *Map 3.*

Map 3: Riverside County Project Locations



2004 RTP AMENDMENT

RIVERSIDE COUNTY PROJECTS

***CTC adopted CMIA projects listed in bold**

CO	Category	Route Program	Project Description (New or Revised Scope)	Project Funding ($1,000)	Fiscal Impact	Completion Year	RTP/RTIP Project ID	Reason for Amendment
RV	Mixed Flow	I-15	I-15 ADD 1 MF LANE EACH DIRECTION, BUNDY CYN TO I-15/I-215 IC (FROM 3 TO 4 MF EACH DIR.)	$110,000	PROJECT COST FUNDED BY $110,000,000 FUTURE SALES TAX MEASURE A FUNDS. FUNDING BASED ON REVISED SALES TAX FORECAST ABOVE ORIGINAL 2004 RTP ESTIMATES.	2013	3M07A	**New project**
RV	IC / Ramps	SR-60	EXISTING TEXT *(REFER TO 2006 RTIP VOL 3; RIV CO STATE HWY PROJECTS, PG3):* SR-60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 6 LNS; MODIFY MORENO BEACH DR IC – WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS 1 TO 2 LNS, ADD WB ON-RAMP, ADD AUX LN EB (HALFWAY FROM NASON TO MORENO BEACH) & WB (WB ENTRY RAMP HALFWAY TO NASON) (EA: 32301K) ---------- REVISED: SR-60/NASON ST IC + MORENO BCH DR IC: WIDEN NASON OC 2 TO 4 LNS; MODIFY MORENO BCH DR IC – WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS 1 TO 2 LNS, ADD WB ON-RAMP, ADD AUX LN EB (HALFWAY FROM NASON TO MORENO BCH) & WB (WB ENTRY RAMP HALFWAY TO NASON) (EA: 32301K)	$54,800	PROJECT COST INCREASES OFFSET BY REDUCED PROJECT SCOPE FOR NASON OC. NO FISCAL IMPACT.	2011	RIV041052	Revised scope
RV	Other	SR-60	*TEMPORARY OPERATIONAL CHANGE:* CALTRANS PROPOSAL TO CONVERT EXISTING FULL TIME HOV LN TO PART-TIME LN IN BOTH DIRECTIONS ON 8-MILE SEGMENT OF SR-60 IN RIVERSIDE CTY (EAST OF SR 60/I-215 JCT TO REDLANDS BLVD). CONVERSION WOULD LAST FOR 3 YRS AT WHICH TIME IT WILL REVERT BACK TO FULL TIME HOV LN. HOV LN WOULD BE HOV ONLY FROM 6AM-10AM AND FROM 3PM-7PM AND OPEN TO SOV'S THE REMAINING HOURS OF THE DAY. SIGNAGE WILL BE INSTALLED TO INFORM MOTORISTS OF THE NEW HOURS OF OPERATION. NO ADDITIONAL CHANGES (STRIPING, INGRESS/EGRESS, ETC.) ARE PROPOSED.	NA	AMENDMENT IS OPERATIONAL CHANGE ONLY. NO FISCAL IMPACT.	2007-2010	RIV061164	**Temporary operational change from 24/7 HOV operations to part-time HOV operations**

RIVERSIDE COUNTY PROJECTS								**CTC adopted CMIA projects listed in bold*
CO	**Category**	**Route Program**	**Project Description (New or Revised Scope)**	**Project Funding ($1,000)**	**Fiscal Impact**	**Completion Year**	**RTP/RTIP Project ID**	**Reason for Amendment**
RV	Mixed Flow	SR-71 / SR-91	EXISTING TEXT *(REFER TO 2004 RTP APPENDIX I, PGI-167)*: IMPROVE INTERCHANGE	Existing: $26,000	INCREASE IN PROJECT COST FUNDED BY $11,885,000 2006 STIP AUGMENTATION ALLOCATION AND $61,129,000 FUTURE SALES TAX MEASURE A FUNDS. FUNDING BASED ON REVISED SALES TAX FORECAST ABOVE ORIGINAL 2004 RTP ESTIMATES.	Existing: 2030	3M04MA12	Revised schedule, project cost increase
			NEW TEXT FURTHER DEFINES EXISTING SCOPE FROM 2004 RTP APPENDIX I, PGI-167: REPLACE THE EXISTING AT-GRADE EB SR-91 TO NB SR-71 LOOP WITH DIRECT FLYOVER CONNECTOR AND CONSTRUCT A COLLECTOR-DISTRIBUTOR SYSTEM EB BTW GREEN RIVER RD IC AND 71/91 JCT. EXTEND EXISTING AUX LNS FROM THE SB SR-71 TO EB SR-91 CONNECTOR TO SERFAS CLUB DR, AND FROM WB SR-91 TO NB SR-71 CONNECTOR TO AUTO CENTER DR. EXTEND EXISTING EB FIFTH GENERAL PURPOSE LN FROM SR-71 TO SERFAS CLUB DR.	Revised: $99,014		Revised: 2016		
RV	**HOV**	**SR-91**	**HOV LANES, ADAMS TO SR-60/SR-91/I-215 IC**	**Existing: $122,916**	**PROJECT COST INCREASE FUNDED BY $157,198,000 CMIA ALLOCATION WHICH MAKES AVAILABLE $47,337,000 FOR OTHER RIVERSIDE COUNTY PROJECTS INCLUDED HEREIN.**	**Existing: 2013**	**RIV010212**	**Schedule change, project cost increase**
				Revised: $232,777		**Revised: 2014**		
RV	**Mixed Flow**	**I-215**	**EXISTING TEXT *(REFER TO 2004 RTP APPENDIX I, PGI-167)*: FROM EUCALYPTUS AVE TO I-15, EXISTING 2 LNS EACH DIR, ADD1 MF LN EACH DIR**	**Existing: $210,000**	**IN ADDITION TO $210,000,000 FUNDING IDENTIFIED FOR THE PROJECT IN THE 2004 RTP, $38,570,000 FROM CMIA AND $46,586,000 FROM THE 2006 STIP AUGMENTATION ALLOCATION HAS BEEN IDENTIFIED. THIS MAKES AVAILABLE $60,156,000 FOR OTHER RIVERSIDE COUNTY PROJECTS INCLUDED HEREIN.**	**Existing: 2025**	**3M01MA07**	**Revised schedule, project cost increase**
			NEW TEXT FURTHER DEFINES EXISTING SCOPE FROM 2004 RTP APPENDIX I, PGI-167: **SEG 1: I-215 ADD 1 MF LANE EACH DIRECTION, I-15/1-215 TO SCOTT RD (CMIA ADOPTED)** **SEG 2: I-215 ADD 1 MF LANE EACH DIRECTION, SCOTT ROAD TO NUEVO**	**Revised: $235,000**		**Revised: SEG 1 – 2013 SEG 2 – 2014**		

RIVERSIDE COUNTY PROJECTS								**CTC adopted CMIA projects listed in bold*
CO	**Category**	**Route Program**	**Project Description (New or Revised Scope)**	**Project Funding ($1,000)**	**Fiscal Impact**	**Completion Year**	**RTP/RTIP Project ID**	**Reason for Amendment**
RV	IC / Ramps	I-215	EXISTING TEXT *(REFER TO 2006 RTIP VOL 3; RIV CO STATE HWY PROJECTS, PG*6): I-215/VAN BUREN BLVD IC: RECON/WIDEN IC 3 TO 7 LNS (4 WB, 3 EB) & RAMPS 1 TO 2 & 3 LNS (W/ HOV LNS), ADD NB LOOP ENTRY RAMP (2 LNS), ADD NB/SB AUX LNS RIGHT & LEFT TURN LNS (EA 0E520K)	Existing: $34,050	PROJECT COST INCREASE DUE TO ADDITION OF RIGHT OF WAY AND CONSTRUCTION PHASES. COST FUNDED BY $8,500,000 IDENTIFIED TUMF FUNDS OVER FORECAST FROM 2004 RTP AND $51,000,000 LOCAL DISCRETIONARY FUNDS.	2011	RIV060120	Revised scope, project cost increase
			REVISED: I-215/VAN BUREN BLVD IC: RECON/WIDEN IC 2 TO 4 LNS (MUSEUM-OPPORTUNITY), ADD NEW NB 3 LN LOOP ON-RAMP (2 MF, 1 HOV); WIDEN NB/SB OFF-RAMPS (1 TO 2 LNS), SB ON-RAMP (1 TO 2 MF + 1 HOV), NB ON-RAMP (1 TO 1 MF + 1 HOV), ADD NB/SB AUX LN TO CACTUS (EA: 0E520K)	Revised: $93,550				
RV	IC / Ramps	I-215	EXISTING TEXT *(REFER TO 2006 RTIP VOL 3; RIV CO STATE HWY PROJECTS, PG*6): ON I-215 IN PERRIS @ SR-74/G ST IC: REPLACE 2 LN OC W/ 8 LN OC, WIDEN REDLANDS AVE (4TH TO SAN JACINTO); WIDEN/REALIGN RAMPS: 1 TO 2 LNS ON NB OFF 2 LNS, SB OFF 4 LNS; MODIFY 4TH ST (G TO EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS	$3,420	PROGRAMMING IS FOR ENGINEERING ONLY. AS SUCH, NO CHANGE TO PROJECT COST. NO FISCAL IMPACT.	2012	RIV050501	Revised scope
			REVISED: ON I-215 IN PERRIS @ SR-74/G ST IC: REPLACE 2 LN OC W/ 4 LN OC, WIDEN REDLANDS AVE (4TH TO SAN JACINTO); WIDEN/REALIGN RAMPS: 1 TO 2 LNS ON NB OFF 2 LNS, SB OFF 4 LNS; MODIFY 4TH ST (G TO EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS					
RV	IC / Ramps	I-215	EXISTING TEXT *(REFER TO 2006 RTIP VOL 3; RIV CO STATE HWY PROJECTS, PG*6): ON I-215 AT NEWPORT RD IC IN SOUTHWEST RIV CNTY – WIDEN UNDER CROSSING ARTERIAL 4 TO 6 LANES FROM HAUN RD TO ANTELOPE RD & MODIFY RAMPS (PA&ED/PRE-DESIGN)	Existing: $3,000	PROJECT COST INCREASE DUE TO ADDITION OF RIGHT OF WAY AND CONSTRUCTION PHASES. COST FUNDED BY $13,000,000 IDENTIFIED TUMF FUNDS OVER ORIGINAL FORECAST FROM 2004 RTP AND $29,000,000 LOCAL DISCRETIONARY FUNDS.	2013	RIV050534	2006 RTIP project previously not modeled – project to be included in regional modeling and conformity analysis
			NEW TEXT FURTHER DEFINES EXISTING SCOPE FROM 2006 RTIP V3; RIV CO STATE HWY PROJECTS, PG6): I-215/NEWPORT RD IC: RECON/WIDEN 4 TO 6 LNS (ANTELOPE-HAUN), ADD NEW NB/SB 2-LN LOOP ENTRY RAMPS, WIDEN SB ENTRY 2 TO 3 LNS, ADD HOV LN TO EXISTING NB/SB ENTRY RAMPS	Revised: $45,000				

RIVERSIDE COUNTY PROJECTS								**CTC adopted CMIA projects listed in bold*
CO	**Category**	**Route Program**	**Project Description (New or Revised Scope)**	**Project Funding ($1,000)**	**Fiscal Impact**	**Completion Year**	**RTP/RTIP Project ID**	**Reason for Amendment**
RV	HOV	I-215	I-215 ADD 1 HOV LANE EACH DIRECTION, NUEVO TO BOX SPRINGS	$181,700	PROJECT COST FUNDED BY $181,700,000 IN FUTURE SALES TAX MEASURE A FUNDS. FUNDING BASED ON REVISED SALES TAX FORECAST ABOVE ORIGINAL 2004 RTP ESTIMATES.	2013	3H07A	**New project**

SOUTHERN CALIFORNIA

ASSOCIATION of GOVERNMENTS

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Orange County Transportation Authority: Art Brown, Buena Park

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Keith Millhouse, Moorpark

3.22.07

NOTICE OF AVAILABILITY AND PUBLIC HEARING

Draft Amendment #3 to the 2004 Regional Transportation Plan and Draft Amendment #06-08 to the 2006 Regional Transportation Improvement Program

The Southern California Association of Governments (SCAG) has prepared Draft Amendments to the 2004 Regional Transportation Plan (RTP) and to the 2006 Regional Transportation Improvement Program (RTIP) in compliance with the U. S. Department of Transportation's Federal Guidelines, Metropolitan Planning Regulations and with the Environmental Protection Agency (EPA)-Transportation Conformity Rule (40 CFR Parts 51 and 93, published on August 15, 1997).

The Draft Amendments are available on the SCAG website at www.scag.ca.gov. Copies are available for review at SCAG and at public libraries throughout the region (library listing available on the SCAG website). SCAG's Regional Council is tentatively scheduled to consider approving the Amendments on or about June 7, 2007. The final Amendments will be sent to the appropriate state and federal agencies for their approval.

This notice serves as the official start of the comment period. Written comments will be accepted until 5:00pm June 4, 2007. A public hearing will be held at the address below from 10:30am to 11:30am on May 21, 2007. Please direct comments to:

Pablo Gutierrez
Southern California Association of Governments
818 W. 7th St., 12th Floor
Los Angeles, CA 90017

or gutierre@scag.ca.gov

2006 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM
FORMAL AMENDMENT #06-08
RIVERSIDE COUNTY
COMPARISON REPORT

CO	SYS	AGENCY NAME	AMEND #	PROJECT ID	PROGRAM	RTE	PMB	PMA	DESCRIPTION	CHANGE REASON	FUND	YEAR	ENG	TOTAL ENG	ROW	TOTAL ROW	CON	TOTAL CONST	FUND TOTAL	PROJECT TOTAL
RIV	S	MORENO VALLEY	4	RIV041052	CAXT3	60	17.9	19.8	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 6 LNS; MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS, ADD WB ON RAMP, ADD EB/WB AUX LN (EA: 323010)	COST>	WRVTUMF WRVTUMF WRVTUMF WRVTUMF WRVTUMF WRVTUMF	PRIOR 06/07 07/08 08/09 09/10 10/11	800 1200 1200 600 0 0	3800	0 0 3500 5500 0 0	9000	0 0 0 7000 23000 12000	42000	800 1200 4700 13100 23000 12000	54800
RIV	S	MORENO VALLEY	8	RIV041052	CAXT3	60	17.9	19.8	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 4 LNS; MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS, ADD WB ON RAMP, ADD EB/WB AUX LN (EA: 323010)	SCOPE CHG	WRVTUMF WRVTUMF WRVTUMF WRVTUMF WRVTUMF WRVTUMF	PRIOR 06/07 07/08 08/09 09/10 10/11	800 1200 1200 600 0 0	3800	0 0 3500 5500 0 0	9000	0 0 0 7000 23000 12000	42000	800 1200 4700 13100 23000 12000	54800
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	8	RIV070308	CAX66	91	.4	3.7	AT SR91/71 JCT: REPLACE EB 91 TO NB 71 CONNECTOR W/ DIRECT FLY-OVER CONNECTOR, CONSTRUCT EB CD LNS (GREEN RIVER to SERFAS CLUB ICs), CONSTRUCT WB AUX LN (SERFAS to JCT 71) (0F162)	NEW PRJ	STCASHR	07/08	5273	5273	0	0	0	0	5273	5273
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	0	RIV010212	CAX62	91	15.6	21.6	ON SR91 - ADAMS TO 60/215 IC: ADD HOV LNS, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS	C\O 2004	TCRF CMAQ STCASHR TCRF AGENCY XRIV	PRIOR PRIOR 07/08 08/09 09/10 09/10	3700 1307 0 0 0 0 0	16770	0 0 2426 3 0 0 0	24263	0 0 0 16300 35583 30000	81883	3700 13070 24263 16300 35583 30000	122916

2006 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM
FORMAL AMENDMENT #06-08
RIVERSIDE COUNTY
COMPARISON REPORT

CO	SYS	AGENCY NAME	AMEND #	PROJECT ID	PROGRAM	RTE	PMB	PMA	DESCRIPTION	CHANGE REASON	FUND	YEAR	ENG	TOTAL ENG	ROW	TOTAL ROW	CON	TOTAL CONST	FUND TOTAL	PROJECT TOTAL
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	8	RIV010212	CAX62	91	15.6	21.6	ON SR91 - ADAMS TO 60/215 IC: ADD HOV LNS, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS	COST>	TCRF CMAQ STCASHR CMAQ CMIA	PRIOR PRIOR 07/08 10/11 10/11	3700 1307 0 0 0 0	16770	0 0 2426 3 0 0	24263	0 0 0 34546 15719 8	191744	3700 13070 24263 34546 157198	232777
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	8	RIV070305	CAX63	215	9.0	15.5	ON I-215 IN SW RIV CO FROM I-15/215 JCT TO SCOTT RD: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 MF LANES - 3 in each direction) (EA: 0F161)	NEW PRJ	STCASHR STCASHR CMIA STCASHR	07/08 08/09 10/11 10/11	3623 3548 0 0	7171	0 50 0 0	50	0 0 38570 16530	55100	3623 3598 38570 16530	62321
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	8	RIV070309	CAX63	215	15.5	28.1	ON I-215 IN SW RIV CO FROM SCOTT RD TO NUEVO RD IC: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 LANES - 3 in each direction) (EA: 0F162) (PA&ED)	NEW PRJ	STCASHR	07/08	9392	9392	0	0	0	0	9392	9392
RIV	S	RIVERSIDE COUNTY	8	RIV050534	CARH3	215	17.7	19.3	I-215/NEWPORT RD IC: RECON/WIDEN 4 TO 6 LNS (HAUN-ANTELOPE), ADD NB & SB 2 LN LOOP ON RAMPS, RECON NB+SB ON/OFF RAMPS, WIDEN SB ON 2 TO 3 LNS, ADD HOV LN TO NB & SB ON (EA: 0J440)	COST>	WRVTUMF WRVTUMF WRVTUMF CO WRVTUMF	PRIOR 06/07 07/08 09/10 09/10	290 710 2000 0 0	3000	0 0 5000 0 0	5000	0 0 0 29000 8000	37000	290 710 7000 29000 8000	45000
RIV	S	RIVERSIDE COUNTY	4	RIV050534	PLN40	215	18.0	19.0	ON I-215 AT NEWPORT RD IC IN SOUTHWEST RIV CNTY - WIDEN OVER CROSSING ARTERIAL 4 TO 6 LANES FROM HAUN RD TO ANTELOPE RD & MODIFY RAMPS (PA&ED/PRE-DESIGN)	COST>	WRVTUMF WRVTUMF WRVTUMF	PRIOR 06/07 07/08	290 710 2000	3000	0 0 0	0	0 0 0	0	290 710 2000	3000
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	0	RIV050501	CAXT3	215	25.5	27.0	I-215 AT SR74/G ST IC: REPLACE 2 LN OC W/ 8 LN OC & WIDEN REDLANDS AVE (4th to SAN JACINTO), WIDEN/REALIGN RAMPS, MODIFY 4th ST (G to EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS	C\O 2004	WRVTUMF XRIV AGENCY DEMOSTL LOC-AC HPP-ACC HPP-ACC	PRIOR PRIOR 06/07 06/07 06/07 07/08 08/09	1050 1050 200 480 320 160 160	3420	0 0 0 0 0 0 0	0	0 0 0 0 0 0 0	0	1050 1050 200 480 320 160 160	3420

2006 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM
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CO	SYS	AGENCY NAME	AMEND #	PROJECT ID	PROGRAM	RTE	PMB	PMA	DESCRIPTION	CHANGE REASON	FUND	YEAR	ENG	TOTAL ENG	ROW	TOTAL ROW	CON	TOTAL CONST	FUND TOTAL	PROJECT TOTAL
RIV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	8	RIV050501	CAXT3	215	25.5	27.0	I-215 AT SR74/G ST IC: REPLACE 2 LN OC W/ 4 LN OC & WIDEN REDLANDS AVE (4th to SAN JACINTO), WIDEN/REALIGN RAMPS, MODIFY 4th ST (G to EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS	SCOPE CHG	WRVTUMF XRIV AGENCY DEMOSTL LOC-AC HPP-ACC HPP-ACC	PRIOR PRIOR 06/07 06/07 06/07 07/08 08/09	1050 1050 200 480 320 160 160	3420	0 0 0 0 0 0 0	0	0 0 0 0 0 0 0	0	1050 1050 200 480 320 160 160	3420
RIV	S	MARCH JOINT POWERS AUTHORITY	0	RIV060120	CAYT3	215	32.3	35.8	I-215/VAN BUREN BLVD IC: RECON/WIDEN IC 3 TO 7 LNS (4 WB, 3 EB) & RAMPS 1 TO 2 & 1 TO 3 LNS), ADD NB LOOP ENTRY RAMP (2 LNS), ADD NB/SB AUX LNS & RT+LFT-TRN LNS (EA 0E520K)	NEW PRJ	WRVTUMF DEV FEE WRVTUMF AGENCY DEV FEE DEV FEE RED WRVTUMF	06/07 07/08 07/08 08/09 08/09 09/10 09/10 09/10	550 3000 500 0 0 0 0 0	4050	0 0 0 1000 1000 0 0 0	2000	0 0 0 0 0 3000 15000 10000	28000	550 3000 500 1000 1000 3000 15000 10000	34050
RIV	S	MARCH JOINT POWERS AUTHORITY	8	RIV060120	CAYT3	215	32.3	35.9	I-215/VAN BUREN BLVD IC: RECON/WIDEN IC 2 TO 4 LNS (Museum--Opportunity), ADD NB 3 LN ON RAMP & WIDEN RAMPS 1 to 2 & 3 LNS w/ HOV ENTRY LNS, ADD NB/SB AUX LN TO CACTUS (EA 0E520K)	SCOPE CHG	WRVTUMF DEV FEE WRVTUMF AGENCY DEV FEE WRVTUMF AGENCY DEV FEE RED WRVTUMF WRVTUMF	06/07 07/08 07/08 08/09 08/09 08/09 09/10 09/10 09/10 09/10 10/11	550 3000 500 0 0 1500 0 0 0 2000 0	7550	0 0 0 2000 1000 0 0 0 0 0 0	3000	0 0 0 0 0 0 50000 3000 15000 10000 5000	83000	550 3000 500 2000 1000 1500 50000 3000 15000 12000 5000	93550