Administrative Draft
Initial Study and
Mitigated Negative Declaration

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January 25, 2013

JN 10-107939 (133624)

This is a project of the City of Moreno Valley with funding provided by the Southern California Association of Governments' (SCAG) Compass Blueprint Program. Compass Blueprint assists Southern California cities and other organizations in evaluating planning options and stimulating development consistent with the region's goals. Compass Blueprint tools support visioning efforts, infill analyses, economic and policy analyses, and marketing and communication programs. The preparation of this report was funded in part through grant(s) from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) through the United States Department of Transportation (DOT) in accordance with the Metropolitan Planning Program as set forth in Section 104(f) of Title 23 of the U.S. Code. Additional funding was provided through a Blueprint Planning grant from the California Department of Transportation (Caltrans).

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ACRONYMS

AB	Assembly Bill
ACM	asbestos containing material
af	acre feet
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
ºC	Degrees Celsius
CARB	California Air Resources Board
CBC	California Building Code
CBMWD	Central Basin Municipal Water District
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CH_4	Methane
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2eq	carbon dioxide equivalent
CUPA	Certified Unified Program Agency
dB	decibel scale
dBA	A-weighted decibel
EIR	Environmental Impact Report
EMP	Emergency Management Plan
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ºF	Degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	global greenhouse gas
HCM	Highway Capacity Manual
HVAC	Heating Ventilation and Air Conditioning
ICU	Intersection Capacity Utilization
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
JOA	Joint Outfall Agreement
JOD	Joint Outfall Districts
JOS	Joint Outfall System
LACDPW	Los Angeles County Department of Public Works
LACFD	Los Angeles County Fire Department
LBP	lead based paint

ACRONYMS

L_{dn}	Day-Night Sound Level
L_{eq}	equivalent sound level
LOS	level of service
mgd	million gallons per day
MMT	million metric tons
MT	metric tons
$MTCO_2eq$	metric tons of CO_2 equivalent
MWD	Metropolitan Water District
N/A	not applicable
NAHC	Native American Heritage Commission
N_2O	nitrous oxides
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NOI	Notice of Intent
NOP	Notice of Preparation
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OPR	Office of Planning and Research
Pb	lead
PCE	passenger car equivalent
$PM_{2.5}$	particulate matter up to 2.5 microns in diameter
PM_{10}	particulate matter up to 10 microns in diameter
PPM	parts per million
PPV	peak particle velocity
RCP	reinforced concrete pipe
RCPG	Regional Comprehensive Plan and Guide
RECs	Recognized Environmental Conditions
ROG	Reactive Organic Gas
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Boards
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SO_X	sulfur oxides
SRA	Source Receptor Area
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMP	Traffic Management Plan
tsf	total square feet
USDOT	United States Department of Transportation

ACRONYMS

USPS	United States Postal Service
UST	underground storage tank
UWMP	Urban Water Management Plan
V/C	Volume/Capacity
VdB	velocity in decibels
VOCs	volatile organic compounds

TECHNICAL APPENDICES ON CD

1.0 INTRODUCTION

The proposed Alessandro Boulevard Corridor Implementation Project (herein referenced as the "project") is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City, and , and 3) amend the general plan and zoning for approximately 21.74 acres of R-5 to Community Commercial. The proposed changes affect approximately 315 acres along, adjacent to, or in close proximity to Alessandro Boulevard. The project involves an amendment to the General Plan Land Use Map, as well as an amendment to the Moreno Valley Zoning Code and Zoning Map. Following a preliminary review of the proposed project, the City of Moreno Valley has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with the *California Code of Regulations* (*CCR*) Sections 15051 and 15367, the City of Moreno Valley (City) is identified as the Lead Agency for the proposed project. Under the *California Environmental Quality Act* (*CEQA*) (*Public Resources Code* Section 21000-21177) and pursuant to *CCR* Section 15063, the City is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (*Public Resources Code* Section 21080(c)).

The environmental documentation, which is ultimately selected by the City in accordance with *CEQA*, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The environmental documentation and supporting analysis is subject to a public review period. During this review, public agency comments on the document relative to environmental issues should be addressed to the City of Moreno Valley. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City.

1.2 PURPOSE

The purpose of the Initial Study is to: (1) identify environmental impacts; (2) provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or a negative declaration; (3) enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is required to be prepared; (4) facilitate environmental assessment early in the design of the project; (5) document the factual basis of the finding in a negative declaration that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously prepared EIR could be used for the project; and (8) assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as the Lead Agency (in this case, the City of Moreno Valley) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study, and are incorporated into this document by reference. These documents are available for review at the City of Moreno Valley located at 14177 Frederick Street, Moreno Valley, California 92552.

City of Moreno Valley General Plan (adopted July 11, 2006). The *City of Moreno Valley General Plan* (*General Plan*) is a comprehensive long-term strategy for the physical development of the City. The *General Plan* determines how land may be used and the infrastructure and public services that are needed or desired by the community. The *General Plan* provides a framework for decision making related to planning and long term development in the local and regional context. The *General Plan* includes the following elements:

- Community Development
- Economic Development
- Parks, Recreation and Open Spaces
- Circulation
- Safety
- Conservation
- Housing

City of Moreno Valley Housing Element 2008-2014 (adopted February 22, 2011). On February 22, 2011, the Moreno Valley City Council approved the 2008-2014 Housing Element to the *General Plan*, in compliance with State law. The Housing Element was certified by the California Department of Housing and Community Development (HCD), and was found to be in full compliance with State housing element law on October 13, 2010.

The 2008-2014 Housing Element consists of a series of ongoing and new programs that implement the City's housing element goals, which are classified into five areas of focus:

- Preservation and revitalization of existing neighborhoods.
- Creation of housing opportunities for special needs populations.
- Creation of rental housing for low and very low income households.
- Creation of housing opportunities for low and moderate income first time home buyers.
- Increase of energy conservation measures.

The 2008—2014 Housing Element identifies that the City will accommodate a portion of its regional housing need (1,945 units affordable to lower-income households) by proposing to rezone 142 acres of vacant and underutilized sites to R-30 with a minimum density of 24 units per acre. The sites proposed for the rezone are identified in Attachment 4 of the Element, and are referred to as Calculations 3, 4, and 5. These calculation areas are also shown in Attachment 1 of the Element.

City of Moreno Valley General Plan Final Environmental Impact Report (SCH# 20091075) (certified July 11, 2006). The *City of Moreno Valley General Plan Final Environmental Impact Report* (*General Plan EIR*) reviews the existing conditions of the City, analyzes potential environmental impacts from implementation of the *General Plan*, identifies objectives, policies and programs from the proposed *General Plan* that serve to reduce and minimize impacts, and identifies additional mitigation measures, if necessary, to reduce potentially significant impacts of the *General Plan*. The project included a comprehensive update of the *General Plan*, and reviewed three potential land use policy map alternatives: 1) Existing General Plan, 2) Alternative 2, and 3) Alternative 3. Alternative 2 was the land use policy map adopted by the City Council, and includes the following:

- 62,922 single-family detached residential units
- 20,402 multi-family attached residential units
- 21,908,000 square feet of commercial
- 19,878,000 square feet of professional office
- 9,241,500 square feet of public
- 46,408,000 square feet of business park/industrial

Collectively, this totals 83,224 dwelling units and 97,409,000 square feet of non-residential floor area by 2030. This represents an increase of 41,179 dwelling units (25,706 single-family detached and 15,473 multi-family attached) and 76,615,000 square feet of non-residential floor area over existing conditions. The *General Plan EIR*, a Program EIR, evaluated the impacts of implementing the *General Plan*, the consideration of broad policy alternatives, and program-wide mitigation measures. The Program EIR also determined when subsequent environmental review would be needed for a specific development proposal that is consistent with the *General Plan*.

The *General Plan EIR* reviewed all topic areas identified in the CEQA Guidelines Appendix G, Environmental Checklist Form: Aesthetics; Agriculture Resources; Air Quality; Biological Resources; Cultural Resources; Geology/Soils; Hazards & Hazardous Materials; Hydrology/Water Quality; Land Use/Planning; Mineral Resources; Noise; Population/Housing; Public Services; Recreation; Transportation/Traffic; and Utilities/Service Systems.

Significant Unavoidable Impacts

The *General Plan EIR* concluded that implementation of the *General Plan* will result in significant project-level and cumulative impacts to traffic/circulation, air quality, and agricultural resources which cannot be fully mitigated. The City Council adopted a Statement of Overriding Considerations for these impacts on July 11, 2006.

Traffic/Circulation

Buildout of the City under Land Use Alternative 2 would result in an average of 2,628,197 daily trips. As shown in *General Plan EIR* Table 5.2.7, a total of 34 roadway segments would have projected V/C ratios indicating they are near to their daily traffic capacities. *General Plan EIR* Table 5.2-8 identifies those roadway segments where the

projected traffic volume exceeds roadway design capacity; 26 roadway segments have V/C ratios that are projected to exceed their daily traffic capacity. The 26 roadway segments are:

1. Alessandro Boulevard from Old 215 Frontage Road to Day Street
2. Cactus Avenue from Graham Street to Heacock Street
3. Cactus Avenue from Old 215 Frontage Road to Elsworth Street
4. Day Street from Ironwood Avenue to SR-60
5. Day Street from SR-60 to Eucalyptus Avenue
6. Eucalyptus Avenue from Graham Street to Heacock Street
7. Eucalyptus Avenue from Old 215 Frontage Road to Day Street
8. Frederick Street from SR-60 to Sunnymead Boulevard
9. Frederick Street from Sunnymead Boulevard to Towngate Boulevard
10. Gilman Springs Road from SR-60 to Spine Road
11. Heacock Avenue from Cottonwood to Alessandro Boulevard
12. Heacock Street from Alessandro Boulevard to Cactus Avenue
13. Heacock Street from Cactus Avenue to John F. Kennedy Drive
14. Heacock Street from Ironwood Avenue to SR-60
15. Heacock Street from Manzanita Avenue to Ironwood Avenue
16. Heacock Street from SR-60 to Sunnymead Boulevard
17. Heacock Street from Sunnymead Boulevard to Eucalyptus Avenue
18. Indian Street from Mariposa Avenue to Nandina Avenue
19. Indian Street from Sunnymead Boulevard to Fir Avenue
20. Kitching Street from Iris Avenue to Krameria Avenue
21. Kitching Street from Krameria Avenue to Mariposa Avenue
22. Perris Boulevard from Elder Avenue to Sunnymead Boulevard
23. Perris Boulevard from Nandina Avenue to Oleander Avenue
24. Perris Boulevard from Oleander Avenue to south of Oleander Avenue (this location is outside of the City Sphere of Influence)
25. Pigeon Pass Road from Ironwood Avenue to SR-60
26. Redlands Boulevard from north of Locust Avenue to Locust Avenue

Air Quality

Short-Term Construction Impacts

Future development in the planning area will generate construction impacts associated with the following construction activities: 1) construction equipment emissions; 2) emissions from workers' vehicles traveling to and from the construction sites; and 3) dust from grading and earth-moving operations. Construction related air quality impacts will occur periodically throughout implementation of the *General Plan*, regardless of which Land Use Alternative is selected. Construction activity will primarily generate PM_{10}, CO, and NO_X. In addition, reactive organic gases (ROGs) will be released during the use of architectural coatings, exterior paints and asphalt.

The three General Plan Land Use Alternatives identify future allowed land uses; however, no specific development is proposed. Construction emissions for specific development projects will vary depending on the size of the project, amount of grading required, type and quantity of construction equipment, building floor area or number of residential units to be constructed. As depicted in Table 5.2-6, the demolition, grading, and building construction activities of a typical development project allowed under the *General Plan* may result in an average of 18 pounds per day of PM_{10} emissions, 113 pounds per day of ROG emissions, 154 pounds per day of NO_X emission, and 141 pounds per day of CO emissions for one project. However, more than one project is likely to be under construction at one time. The South Coast Air Basin currently fails to meet state and federal air quality standards for four of the criteria pollutants including ozone, nitrogen dioxide, carbon monoxide, and fine particulate matter. Therefore, the addition of construction related emissions to the air basin could violate the existing federal, State, and local air quality standards

for ozone, nitrogen dioxide, carbon monoxide, and fine particulate matter and contribute to an existing air quality violation. This is considered a significant impact.

The PM_{10} emissions associated with construction activities can be reduced by approximately 50 percent with implementation of the SCAQMD Rule 403 construction regulations. Also, implementation of the aforementioned new state and AQMD regulations on construction equipment, diesel fuels and diesel exhaust will substantially reduce short-term impacts on air quality. Implementation of Mitigation Measures AQ1, AQ2, and AQ3 will further reduce the construction related air quality impact; however, the impact associated with construction related emissions is anticipated to remain significant and unavoidable.

Long-Term Impacts

New development that would occur pursuant to any of the three General Plan Alternatives would impact regional air quality. The major sources of new air pollution would result from: 1) on-site emissions from the use of natural gas for space heating, cooking and water heating; 2) emissions from vehicles traveling to and from the planning area; 3) emissions from the combustion of fossil fuels at power plants to produce the electricity used within the planning area; and 4) stationary source emissions from industrial and commercial uses.

Table 5.3-8 depicts the estimated daily emissions associated with buildout of General Plan Alternative 2, which includes both stationary and mobile emissions. Table 5.3-8 also summarizes the difference between existing and Alternative 2 estimated daily emissions. The planning area is anticipated to generate over 52,535 pounds per day of PM_{10}, 26,776 pounds per day of ROG, 10,814 pounds per day of NO_X, and 107,699 pounds per day of CO. As depicted in Table 5.3-8, this is a decrease of approximately 1,805 pounds per day of ROG, 18,025 pounds per day of NO_X, and 150,932 pounds per day of CO.

The South Coast Air Basin currently fails to meet state and federal air quality standards for four of the criteria pollutants including ozone, nitrogen dioxide, carbon monoxide, and fine particulate matter. Although emission levels are anticipated to decrease for ROG, NO_X, and CO by the buildout of any of the three General Plan Alternatives due to stricter air quality standards and better technology, implementation of any of the three General Plan Alternatives could still significantly contribute to the existing air quality violations. As a result, implementation of the *General Plan* could violate the existing federal, State, and local air quality standard and conflict with the SCAQMD Air Quality Management Plan or SCAG Growth Management Plan. Implementation of Mitigation Measures AQ1 through AQ10 would reduce the air quality impacts; however, the long-term air quality impact is anticipated to remain significant and unavoidable due to cumulative effects in combination with air emissions within the South Coast Air Quality Basin.

Sensitive Receptors

Future development according to any of the three General Plan Alternatives has the potential to increase the exposure of sensitive receptors, including residents, in the planning area to increased air pollutant levels associated with carbon monoxide (CO). Section 5.2 Traffic/Circulation of the *General Plan EIR* provides an analysis of roadway and intersection operations for *General Plan* buildout. As depicted in Section 5.2, implementation of the proposed *General Plan* could result in several intersections operating at Level of Service (LOS) E or worse. These intersections would have the potential to create localized CO "hot spot" impacts. Typically, if a sensitive receptor is located within 500 feet of an intersection operating at LOS worse than E, a significant impact would occur. Therefore, implementation of the *General Plan* may result in a significant impact associated with sensitive receptors.

Concentrations of air pollutants such as carbon monoxide and particulates are much higher adjacent to freeways than the concentrations of pollutants in areas located far from freeways. The land use plan for Alternatives 1 and 3 would allow new residential development adjacent to State Route 60 (from Moreno Beach Drive east), while Alternative 2 would allow commercial, office and business park development adjacent to the freeway. Therefore, both Alternatives 1 and 3 would expose more sensitive receptors to air pollution from freeway traffic than would be the case under Alternative 2.

Implementation of Mitigation Measure AQ10 would reduce the impact; however, the impact associated with sensitive receptors would remain significant and unavoidable. Mitigation Measure AQ10 requires that studies shall be conducted on the identified street segments to determine if any additional traffic controls, pavement width or other operational system improvements are needed to achieve the desired level of service.

Agricultural Resources

Implementation of General Plan Alternatives 1, 2, or 3 will result in the eventual conversion of the majority of the agricultural uses within the planning area to urban uses. General Plan Land Use Alternatives 1, 2, and 3 contain policies to encourage the interim use of land for agricultural activities. However, even with these measures, there are existing pressures that would result in the conversion of agriculture within and adjacent to the planning area with or without implementation of any of the three proposed General Plan Alternatives. Therefore, a significant and unavoidable impact to agriculture as a result of the implementation of General Plan Land Use Alternatives 1, 2, or 3 will remain.

Less Than Significant or Not Significant Impacts

All other impacts in the *General Plan EIR* were concluded to be less than significant, both with or without mitigation, or not significant.

City of Moreno Valley Municipal Code. The *City of Moreno Valley Municipal Code* provides regulations for governmental operations, development, infrastructure, public safety, and business operations within the City. Title 9, Planning and Zoning, is intended to implement the goals, objectives, policies, and programs of the *General Plan* and manage future growth and change in accordance with the plan in order to protect the physical, social, and economic stability and vitality of land uses within the City. It is also intended to attain physical, social, and economic advantages resulting from comprehensive and orderly land use and resource planning while reducing or eliminating hazards to the public.

Initial Study/Environmental Assessment for City of Moreno Valley - Edgemont Water Master Plan Update (September 2009). The United States Environmental Protection Agency issued a Finding of No Significant Impact for the City of Moreno Valley – Edgemont Water Master Plan Update. The Environmental Assessment examines two alternatives to upgrade the water system in the Edgemont area. Alternative 1 consists of the construction of a new water reservoir tank that will serve as the water supply for the City. A new pipeline system will be constructed to supply the water to the Edgemont area. Alternative 2 uses the existing Western Municipal Water District system to supply water to the Edgemont Area. A pipeline system nearly identical to alternative 1 will be constructed under this alternative. The differences in the pipeline are minor and solely related to the connection point between the two alternatives. The EA did not identify any significant impacts to the environment that would result from the implementation of this project, and included a total of six mitigation measures (Aesthetics -1, Biological – 1, Cultural – 2, Geology – 1, Hazards – 1) to reduce significant impacts.

1.5 CEQA DOCUMENT TIERING

Both the *Public Resources Code* and the *CEQA Guidelines* discuss the use of "tiering" environmental impact reports by lead agencies. *Public Resources Code* Section 21068.5 defines "tiering" as:

> *"The coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program or ordinance followed by narrower or site-specific environmental impact reports which incorporate by reference the discussion in any prior environmental impact report and which concentrate on the environmental effects which: (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior environmental impact report."*

Tiering is a method to streamline EIR preparation by allowing a Lead Agency to focus on the issues that are ripe for decision and exclude from consideration issues already decided or not yet read for decisions (*CEQA Guidelines* Sections 15152 and 15385). The concept of tiering anticipates a multi-tiered approach to preparing EIRs. The first-tier EIR covers general issues in a broader program-oriented analysis, including important program resource and mitigation commitments required to be implemented at the project-level. Subsequent tiers incorporate by reference the general discussions from the broader document, concentrating on the issues specific to the proposed action being evaluated (*CEQA Guidelines* Section 15152).

First-tier documents are usually Program EIRs, Master EIRs, General Plan EIRs, Staged EIRs, Redevelopment Plan EIRs, or similar EIRs. Second-tier documents are typically Project EIRs, Focused EIRs, and Mitigated Negative Declarations that evaluate the impacts of a single activity undertaken to implement the plan, program, or policy.

When an EIR has been prepared and certified for a program or plan consistent with *CEQA's* tiering requirements, a Lead Agency for a later project pursuant to or consistent with the program or plan should limit the EIR on the later project to effects that were not examined as significant effects on the environment in the prior EIR. In those situations where a programmatic document does not specifically address and analyze the impacts and mitigation measures necessary for a project-level action, the project-level environmental review can be streamlined by tiering from the program-level documents. Agencies are encouraged to tier their CEQA analysis to avoid repetition of issues and to focus on the issues for decision at each level of review. Subsequent CEQA compliance involves either the preparation of an EIR or Negative Declaration.

For purposes of tiering, significant environmental effects have been "adequately addressed" in the first-tier document if the Lead Agency determines that the significant environmental effects:

- Have been mitigated or avoided as a result of the prior EIR and adopted findings in connection with that prior EIR;

- Have been examined at a sufficient detail in the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means with the approval of the later project; and

- Cannot be mitigated to avoid or substantially lessen the significant impacts despite the project proponent's willingness to accept all feasible mitigation measures, and the only purpose of including analysis of such effects in another EIR would be to put the agency in a position to adopt a statement of overriding considerations with respect to the effects.

In the case of this proposed project, a Final EIR was certified for the *City of Moreno Valley General Plan* in July 2006. The *General Plan EIR* analyzed the impacts associated with implementation of the land use policy map and policies contained in the City's *General Plan* that are intended to guide growth and development in the City. The growth anticipated under the *General Plan* was described previously in Section 1.4, Incorporation By Reference, as were the 14 topical areas reviewed in the *General Plan EIR*.

The *General Plan EIR* is considered a first-tier EIR. The Mitigated Negative Declaration for this proposed project is considered a second-tier CEQA document, and the analysis in this Mitigated Negative Declaration has: 1) incorporated by reference the *General Plan EIR* and 2) will tier the analysis in this MND to focus on impacts not previously analyzed in the *General Plan EIR*.

The first-tier EIR (*General Plan EIR*) provided analysis for the topics of: Land Use and Planning; Traffic/Circulation; Air Quality; Noise; Hazards and Hazardous Materials; Geology and Soils; Hydrology and Water Quality; Agricultural Resources; Biological Resources; Cultural Resources; Aesthetics; Population and Housing; Public Services; and Mineral Resources.

For purposes of this CEQA document (Mitigated Negative Declaration), the *General Plan EIR* has adequately addressed the proposed project's impacts related to Cultural Resources; Biological Resources; Agricultural Resources; and Mineral Resources, as the growth anticipated under the proposed project is consistent with and accounted for in the projected growth anticipated under the *General Plan*. Topics to be tiered off the *General Plan EIR* in this second-tier CEQA document (Mitigated Negative Declaration) include Land Use and Planning; Aesthetics; Traffic; Air Quality, Noise; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Population and Housing; Public Services; Recreation; and Utilities.

This second-tier CEQA document (Mitigated Negative Declaration) will be used by the Lead Agency to evaluate the proposed project's environmental impacts, and can be further used to modify, approve, or deny the approval of the proposed project based on the analysis it provides.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regionally, the project area is located in the southern portion of the City of Moreno Valley in western Riverside County; refer to *Exhibit 2-1*, *Regional Vicinity*. Locally, the project area generally includes an approximately 5.5-mile stretch of Alessandro Boulevard from the Old 215 Frontage Road on the west to Nason Street on the east; refer to *Exhibit 2-2*, *Project Location Map & Nodes*. The project area has direct access to and from the I-215 Freeway at the Alessandro Boulevard interchange.

2.2 ENVIRONMENTAL SETTING

At 5.5 miles in length, the corridor is the longest of Moreno Valley's five corridors. It serves as an important transportation corridor that connects Interstate 215 and the nearby future planned Metrolink Station at the western end with the Riverside County Regional Medical Center approximately 5.5 miles to the east along Nason Street.

Existing physical conditions on the corridor are typical and characteristic to many suburban corridors – low intensity, automobile-oriented uses such as warehouses, office parks, drive-through restaurants and pharmacies, and multiple strip malls and community-oriented shopping centers. The roadway itself lacks consistent landscaping and an overall positive image. Buildings along the corridor tend to be located behind parking lots. Some new buildings have been built closer to the corridor, but are located behind drainage swales that are visually pleasant but tend to disconnect the building from the environment it its shaping. In some areas, established single-family neighborhoods are north and south of the corridor and present their backyard walls along the corridor. Multi-family apartments and townhomes are located in lesser amounts in the area. Some homes are located directly fronting Alessandro Boulevard, with direct driveway access along the corridor.

The natural setting of the area is very attractive, with long-distance views from the corridor of surrounding hills and mountain ranges, including large peaks in the San Bernardino National Forest and Mt. San Jacinto National State Wilderness. Remnants of agricultural fields, vineyards, and orchards are in the eastern end of the corridor. One mile east of the study area, at the intersection of Alessandro and Redlands Boulevards, is the location where Moreno Valley was established in 1891.

2.3 EXISTING ZONING AND GENERAL PLAN

General Plan: Multiple Designations

Zoning: Multiple Designations

2.4 PROJECT BACKGROUND

2.4.1 Vision Plan for Alessandro Boulevard Corridor

On June 30, 2010, the Moreno Valley City Council accepted the *Vision Plan for Alessandro Boulevard Corridor* (*Vision Plan*), a Southern California Association of Governments (SCAG) Compass Blueprint Study. The *Vision Plan* looked at the Alessandro Boulevard corridor and the properties within ½-mile to its north and south between the I-215 Freeway and Nason Street. The purpose of the study was to identify the potential for the Boulevard becoming a transit corridor, linking a planned Metrolink Station with the 50-square mile, 186,000 person community of Moreno Valley. After learning that transit-oriented development would not be possible at the planned Metrolink Station due to restrictions involving aircraft patterns from the nearby March Air Force Base, the study broadened its focus to

evaluate the corridor's potential for transit as part of the composite solution for revitalization of the corridor. Essentially, transit will play a role in the corridor, but it should not drive the community's efforts to recast this corridor.

The *Vision Plan* includes the following chapters: Introduction, Vision and Guiding Principles, Community Form and Role of Alessandro Boulevard, Recommendations, and Implementation. The following paragraphs have been excerpted from the *Vision Plan*.

Vision

Alessandro Boulevard is a thriving multi-modal boulevard that connects neighborhoods and employment centers with regional, community, and neighborhood-serving retail and services spaced along the corridor in activity nodes. Residents, employees, and visitors can walk to the corridor for a variety of needs ranging from personal services to restaurants and groceries.

Guiding Principles

The report evaluated the corridor in five ways – local perspective and vision along with existing physical, policy, economic, and sustainability conditions. Based upon the information obtained during the evaluation activities, the report identified and established the following underlying principles to guide the City's actions for Alessandro Boulevard's revitalization:

1. Alessandro Boulevard's future is established through a vision that has a clear purpose, is generated through a collaborative public process, focuses on placemaking, is implementable and adaptable through a framework of tangible policy and standards;
2. Positive change is realized through a variety of partnerships aimed at a diverse range of opportunities along the corridor;
3. The corridor is organized into a hierarchy of distinct and related activity nodes that respond to the adjacent existing and/or future neighborhoods and employment centers;
4. The physical scale of each activity node and connecting corridor segments is adjusted to the intended physical character to promote compatibility;
5. Streetscapes and rights-of-way accommodate the vehicle while focusing on the needs of pedestrians and cyclists, particularly at activity nodes;
6. Development is scaled to the pedestrian and consists of a mix of retail, housing, public facilities and types of buildings;
7. Commerce is focused at and near activity nodes to generate thriving pedestrian-oriented development and to share infrastructure such as parking;
8. A diverse mix of building types and styles generates an urban form along the corridor that enhances commerce at activity nodes, creating a positive identity;
9. Housing types include a mix of dwellings by size and income levels to generate a wide range of housing choices and to enhance the customer base along the corridor;
10. Mixed use and/or higher density buildings are located at the core of activity nodes to physically shape and activate public space/streetscapes at these important locations;
11. Open Space is distributed along the corridor and consists of a mix of public open spaces -- streetscapes, linear parks, plazas -- depending upon the intended physical scale of the location;
12. Streets are multi-modal -- rail, bus, car, bike, pedestrian -- aimed at providing a range of choices and to support the corridor as a series of distinct and related pieces;
13. The corridor is designed for efficient traffic flow while at speeds that are compatible with pedestrian activity and support commercial activity;
14. The streetscape provides shade and comfort for pedestrians and cyclists with consistent elements to spatially define the corridor and to emphasize the commercial nature of activity nodes; and

15. Parking in non-residential areas and activity nodes is addressed through a 'park-once' approach, which groups and shares parking responsibilities with the parking ratio calibrated to the different intensities of the activity nodes. Residential parking is provided for each property in ways that are supportive of the living environment and that maintain the integrity of the public streetscape.

Community Form and Role of Alessandro Boulevard

The *Vision Plan* proposed an overall Community Form that included Activity Nodes linked by Primary and Secondary Corridor Zones located in between and along Alessandro Boulevard. Both the Activity Nodes and the Corridor Zones are surrounded by Corridor-Adjacent Zones that are unlikely to change. Each Activity Node is located at a major street intersection and projects outward from the intersection for approximately a ¼-mile walking radius. The Activity Nodes range in intensity from regional-level attractions, such as the Moreno Valley Town Center, to community-level collections of retail and services, such as the shops along Sunnymead Boulevard. In total, four types of nodes were identified: Regional, Medical Center, Community, and Neighborhood.

The intended role of Alessandro Boulevard is summarized below:

A. Alessandro Boulevard as a series of nodes.
B. A new image to attract business, office, and housing to the corridor.
C. Serve the local economy.
D. Transportation, circulation, and access.

Recommendations

The report's key recommendation is that the corridor becomes a series of independent but related nodes. These nodes work in concert with Moreno Valley's existing nodes to provide a complete and strategically dispersed set of places aimed at regional, community, or neighborhood retail and services. The *Vision Plan* also included recommendations for Transportation, Circulation, and Access; and Sustainability.

2.4.2 2008-2014 Housing Element

On February 22, 2011, the Moreno Valley City Council approved the 2008-2014 Housing Element to the *General Plan*, in compliance with State law. The Housing Element was certified by the California Department of Housing and Community Development (HCD), and was found to be in full compliance with State housing element law on October 13, 2010.

In order to maintain its compliance with State housing element law, the City of Moreno Valley is in the process of implementing programs set forth in the 2008-2014 Housing Element. Accordingly, amendments to the *Moreno Valley General Plan* and Moreno Valley Zoning Code are required to increase the City's maximum housing density in certain limited areas of the City. The following objective, policies, and programs are pertinent to the proposed project.

Housing Element Objective 8.13
Propose general plan amendment to R-30 for sites at Alessandro (calculation 5) and Alessandro/hospital (calculation 3) and Perris/Iris (calculation 4) per attachment 1. (Refer to *Exhibits 2-3a, 2-3b, and 2-3c*, *Proposed R-30 General Plan Amendments*).

Policies:
8.13.1 Designate land appropriately zoned for the development higher density housing.
Programs:

8.23 Establish an R-30 zone.

8.24 Process General Plan Amendment to apply R-30 zoning to designated sites or alternative sites of equivalent acreage.

2.4.3 R30 General Plan and Zoning Designation

On September 22, 2009, the Moreno Valley City Council approved PA09-0018 (General Plan Amendment) and PA08-0099 (Municipal Code Amendment), which added a new zoning designation to the *General Plan* creating the Residential 30 (R30) zoning district and amend a range of zoning regulations contained in Title 9 of the City of Moreno Valley Municipal Code regarding multiple family development standards.

General Plan

The following changes were made to the *General Plan*:

- Residential 30 (R30) Zoning District was added.
- Amended Section 9.2.2 under "Policies" (page 9-4) of the *General Plan* as follows:

  2.2.1 The primary purpose of areas designated Residential 30 is to provide a range of high density multi-family housing types in an urban setting. Developments within Residential 30 areas shall also provide amenities, such as common open spaces and recreational facilities. The maximum density shall be 30 dwelling units per acre.

- The rest of the policies of Objective 2.2 were renumbered.

Municipal Code

For Section 9.01.090(A) under "Residential Districts," the following changes were made:

- Added k. Residential 30 (R30) District.
- Changed k. to l. Residential Single-Family 10 (RS10) District.

For Section 9.03.020 under "Residential Districts," L was added:

> L. Residential 30 District (R30). The primary purpose of the R30 district is to provide a broadened range of housing types in a more urban setting than is typically found within other areas of the city. This district is intended as an area for development of multifamily residential dwelling units at a maximum allowable density of thirty (30) DU's per net acre in accordance with the provisions outlined herein.

2.5 PROJECT CHARACTERISTICS

The proposed project is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City, and 3) amend the general plan and zoning for approximately 21.74 acres of R-5 to Community Commercial (refer to *Exhibit 2-4*, *Proposed Zoning Map*. The proposed changes affect approximately 315 acres along, adjacent to, or in close proximity to Alessandro Boulevard.

2.5.1 Project Approvals

A summary of the regulatory amendments are identified below.

General Plan

- Amend the General Plan Land Use Map (*General Plan* Figure 2-2) to designate parcels for the Residential: Maximum 30 dwelling units per acre designation consistent with the Housing Element Objective 8.13, which is depicted on *Exhibits 2-3a, 2-3b, and 2-3c*.

Zoning Code

Amend the Moreno Valley Zoning Code to:

- Add Chapter 9.075 – Mixed-Use Overlay Districts
- Add Chapter 9.09 – Specific Use Standards
- Revise Section 9.02.090 – Administrative Variances
- Revise Chapter 9.11 – Parking, Pedestrian, and Loading Requirements
- Revise Chapter 9.15 – Definitions
- Amend the Zoning Map to Include MUC, MUI, MU Classifications
- Amend the Zoning Map to designate parcels for the Residential 30 designation consistent with the Housing Element Objective 8.13, which is depicted on *Exhibit 2-4*.

2.5.2 Summary of Changes to Moreno Valley Zoning Code

Creation of Zoning Code Chapter 9.075 – Mixed-Use Overlay Districts

Chapter 9.075 will include the following sections:

9.075.010 – Purpose and Intent
9.075.020 – Applicability
9.075.030 – Purposes of Mixed-Use Overlay District
9.075.040 – Permitted Uses in Mixed-Use Overlay Districts
9.075.050 – Mixed-Use Site Development Standards
9.075.060 – Building Frontage Type Standards
9.075.070 – Open Space Standards – Publicly-Accessible Open Space
9.075.080 – Open Space Standards – Private/Common Open Space
9.075.090 – Lot Area Requirements and Lot Consolidation Incentives

9.075.010 – Purpose and Intent

A. Purpose. The purpose of this Chapter to provide regulations that implement the goals and policies of the General Plan, the Alessandro Boulevard Corridor Vision Plan (accepted by the Moreno Valley City Council on June 30, 2010), and other similar long-range planning documents aimed at encouraging mixed-use development within the City.

B. Intent. The Mixed-Use Overlay Districts are intended to:

1. Stimulate economic development and reinvestment through regulations based upon recognized urban design principles that allow property owners to respond with flexibility to market forces;

2. Create specific development nodes at street intersections with a pedestrian-oriented mix of uses with convenient access between area neighborhoods, housing, employment centers, and retail services;

3. Accommodate intensities and patterns of development that can support multiple modes of transportation including public transit, bicycles, and walking;

4. Facilitate well-designed new mixed-use development projects that combine residential and nonresidential uses (e.g., office, retail, business services, personal services, public spaces and uses, other community amenities, etc.) to promote a better balance of jobs and housing;

5. Ensure compatibility with adjacent existing single-family neighborhoods and harmonious integration with existing commercial areas;

6. Encourage the development of unique district character through a streetscape that provides attractive features (e.g., landscaping, street furniture, niche or linear parks, public places, courtyards, public transportation shelters; etc.) designed to integrate the public realm (e.g., streets, sidewalks, etc.) with adjacent development on private property; and

7. Provide additional property rights while preserving existing property rights. This intent is achieved by providing additional development rights in compliance with this Chapter, which property owners may exercise under certain conditions, while retaining all development rights conferred by the underlying district to property owners in the mixed-use overlay districts. Incentives and advantages include allowing a greater range and mix of uses; more permissive dimensional specifications (e.g., greater floor area ratio, lot coverage ratio, and height; reduced setbacks; etc.); exemption from certain design review requirements; and fee reductions or waivers.

9.075.020 – Applicability

This Section describes the applicability of mixed-use overlay district standards to a property when the property is located within two districts – a base district (e.g., Commercial (C), Office (O), Business Park/Light Industrial (BP), etc.) and a mixed-use overlay district.

A. Relationship between overlay district standards and base district standards. For property within a mixed-use overlay district, the regulations in this Chapter allow mixed-use development as an alternative to the type of development allowed under the base (underlying) district standards.

B. Base district standards.

1. The provisions in this Chapter shall apply to all properties within their respective mixed-use overlay districts, but the provisions do not supersede the underlying base district provisions until a property is developed in compliance with the provisions of this Chapter.

2. New projects may be developed in compliance with the existing underlying base district, provided that all standards and requirements of the underlying base district are met.

3. Regulations, development standards, and requirements in the underlying base district shall continue to apply to those projects that are currently developed according to the existing standards.

4. For legal non-conforming uses (i.e., uses that do not comply with the provisions of the base district or this Chapter), the provisions in Section 9.02.180 (Legal Nonconforming Uses, Improvements, and Parcels) shall apply.

C. Option to apply mixed-use overlay district standards.

1. The owner or developer of any property within any mixed-use overlay district may choose to develop in compliance with the standards and procedures in this Chapter that apply to the particular mixed-use overlay district in which the property is located.

2. In order to exercise the option to develop under the provisions in this Chapter, approval of a development review application shall be required in compliance with Chapter 9.02.030 (Development Review Process). In granting the approval, the review authority shall find that:

   a. The proposed development is in compliance with the provisions in this Chapter; and

   b. Approval of the project will not reduce the amount of land available in mixed-use overlay zone areas to a point where the City's affordable housing needs under the Regional Housing Needs Assessment (RHNA) cannot be met.

D. Other applicable regulations. Other applicable regulations can be found in Section 9.09.250 (Live-Work Development) and Section 9.09.260 (Mixed-Use Development).

E. Applicable regulations after completion of development. Once a property is developed in compliance with the provisions in this Chapter, the provisions of this Chapter completely supersede the provisions of the underlying base district. Whenever the requirements of the overlay district impose a more or less restrictive standard than the provisions of the underlying base district, the requirements of the overlay district shall govern.

F. *Effect of Alessandro Boulevard Streetscape Master Plan.* Projects on property located with frontage directly along Alessandro Boulevard shall be subject to the guidelines in the *Alessandro Boulevard Streetscape Master Plan.* The plan provides guidelines for street right-of-way design, streetscape furniture enhancements, and pedestrian and bicycle amenities along Alessandro Boulevard between Day Street on the west end and Nason Street on the east end. If there is a conflict between the standards in this Chapter and the guidelines in the *Alessandro Boulevard Streetscape Master Plan*, the standards of this Chapter shall apply.

G. Use of photographs. Photographs and illustrations are included in this Chapter for illustrative purposes only. Specific development standards in this Chapter are the controlling language for purposes of development regulation.

9.075.030 – Purposes of Mixed-Use Overlay Districts

This Section describes the purpose and intent of each mixed-use overlay district.

A. Mixed-Use Institutional Anchor (MUI) Overlay District. The Mixed-Use Institutional Anchor **(**MUI) Overlay District applies to areas around prominent anchor institutions, such as civic centers, medical centers, and educational campuses. The intent is to build upon the role of the institutions by providing opportunities for urban, high-intensity development that serves the needs of visitors, employees, and residents affiliated with the anchor institution and the surrounding region. Development is allowed up to five stories in height with building frontages near or at the sidewalk, wide sidewalks, and parking under or behind buildings. Vertical mixed-use development (ground-floor retail with offices or housing above) is required at important street intersections. Horizontally-integrated or vertically-integrated mixed-use development, with no requirement for ground-floor retail, is allowed in other locations. The overlay district name may be expanded to include the name of the type of anchor institution (e.g., "MUI – Medical Center"). See Figure 9.075.030-1 (Examples of Development in Mixed-Use Institutional Anchor (MUI) Overlay District).

B. Mixed-Use Community (MUC) Overlay District. The Mixed-Use Community (MUC) Overlay District applies to areas along major arterials and arterials. The intent is to provide opportunities for the development of pedestrian-oriented blocks with medium-intense development that serves the needs of residents, visitors, and employees from the surrounding community. Development is allowed up to four stories in height with building frontages near or at the sidewalk, wide sidewalks, and parking under or behind buildings. Vertical mixed-use development (ground-floor retail with offices or housing above) is required at important street intersections. Horizontally-integrated or vertically-integrated mixed-use development, with no requirement for ground-floor

retail, is allowed in other locations. The overlay district name may be expanded to include the community name (e.g., "MUC – East Alessandro"). See Figure 9.075.030-2 (Examples of Development in Mixed-Use Community (MUC) Overlay District).

C. ***Mixed-Use Neighborhood (MUN) Overlay District.*** The Mixed-Use Neighborhood (MUN) Overlay District applies to areas along arterials and minor arterials. The intent is to provide an area for low-rise mixed-use development that serves the needs of residents, visitors, and employees from the surrounding immediate neighborhood. Development is allowed up to three stories in height with building frontages near or at the sidewalk, wide sidewalks, and parking under or behind buildings. Vertical mixed-use development (ground-floor retail with offices or housing above) is required at important street intersections. Horizontally-integrated or vertically-integrated mixed-use development, with no requirement for ground-floor retail, is allowed in other locations. The overlay district name may be expanded to include the neighborhood name (e.g., "MUN – Lasselle Crossing"). See Figure 9.075.030-3 (Examples of Development in Mixed-Use Neighborhood (MUN) Overlay District).

9.075.040 – Permitted Uses in Mixed-Use Overlay Districts

For the mixed-use overlay districts, unless otherwise expressly provided in this Title, permitted uses are limited to those described in the Permitted Uses Table 9.02.020-1 in Section 9.02.020 (Permitted Uses) of this Title. Any use not listed in Table 9.02.020-1 as a permitted use, conditional use, or accessory use shall be prohibited.

9.075.050 – Mixed-Use Overlay District Site Development Standards

This Section provides standards that govern development on properties located in the Mixed-Use Overlay Districts. See Table 9.075.050-10 (Mixed-Use Overlay District Development Standards) and related illustrations. For the purpose of this Zoning Code, mixed-use projects shall comply with nonresidential standards when no mixed-use standards exist.

9.075.060 – Building Frontage Type Standards

This Section provides frontage type standards for buildings in the mixed-use overlay districts. Table 9.075.050-10 specifies allowable building frontage types for each mixed-use overlay district.

9.075.070 – Open Space Standards – Publicly-Accessible Open Space

This Section provides standards for publicly accessible open space areas in order to ensure a high level of pedestrian connectivity and activity between the public realm and the private realm, as defined in Chapter 9.15 (Definitions)..

9.075.080 – Open Space Standards – Private/Common Open Space

This Section provides standards for private and/or common open space for residential uses. Private and/or common open space shall be provided in addition to the required publicly accessible open space in Section 9.075.080 (Open Space Standards – Publicly-Accessible Open Space).

9.075.090 – Lot Consolidation Incentives

This Section provides incentives to encourage the assembly of smaller existing lots into larger lots that can be more efficiently developed into a mixed-use project.

Creation of Chapter 9.09 – Specific Use Development Standards [New]

Chapter 9.09 will include the following sections:

9.09.250 – Live-Work Development
9.09.260 – Mixed-Use Development
9.09.270 – Outdoor Dining

9.09.250 – Live-Work Development

This Section provides operational and compatibility standards for the development of live/work units. These standards are in addition to the standards for live-work development provided in Chapter 9.075 (Mixed-Use Overlay Districts).

9.09.260 – Mixed-Use Development

This Section provides operational and compatibility standards for mixed-use development. These standards are in addition to the standards provided in Chapter 9.075 (Mixed-Use Overlay Districts).

9.09.270 – Outdoor Dining

This Section provides standards for outdoor dining areas.

Revision to Subsection 9.02.090.C. (Administrative Variances – Limitations on Administrative Variances)

The following subparagraph is added to Paragraph C:

5. Decrease in building frontage requirements. In any mixed-use overlay district, the community development director may authorize up to a ten (10) percent decrease in the distance threshold established to specify the required percentage of a building frontage to be built to the Build-To-Zone, as indicated in Table 9.075.050-10 (Mixed-Use Overlay District Development Standards) (i.e., the distance threshold from street intersections for the purposes of calculating building frontage length may be reduced from 300 feet to 270 feet). The community development director is not authorized to reduce the percentage of the building frontage that is required to be built to the Build-To-Zone.

Revisions to Chapter 9.11 – Parking, Pedestrian, and Loading Requirements [New/Revised]

9.11.030 – General Regulations

H. Rear Parking. Parking in the rear of buildings and service area shall be limited to five percent of the total required off-street parking, except in the mixed-use overlay districts identified in Chapter 9.075 (Mixed-Use Overlay Districts).

9.11.040 – Off-Street Parking Requirements

The addition of a parking ratio for live-work units – 2 covered spaces per unit and 0.25 guest parking spaces per unit, which can be shared with business aspect of the live-work parking standard.

9.11.060 – Off-Street Bicycle Parking Requirements

Revisions to Chapter 9.15 – Definitions [New]

The following terms will be added:

- Block
- Block Length
- Block Perimeter
- Build-to-Zone
- Building Façade Line
- Commercial-Ready Space
- Floor Area Ratio (FAR)
- Integration of uses
- Live-Work
- Live/Work Unit
- Mezzanine
- Mixed-Use Overlay District
- Podium Parking
- Private Realm
- Public Realm
- Surface Parking
- Tuck-Under Parking
- Underground Level

2.5.3 Zone Change from R-5 to Community Commercial

Approximately 21.74 acres of land presently zoned as R-5, which are located immediately east of the Housing Element Calculation 4 area, would be rezoned to Community Commercial.

2.5.4 Development Potential Associated with Proposed General Plan and Zoning Changes

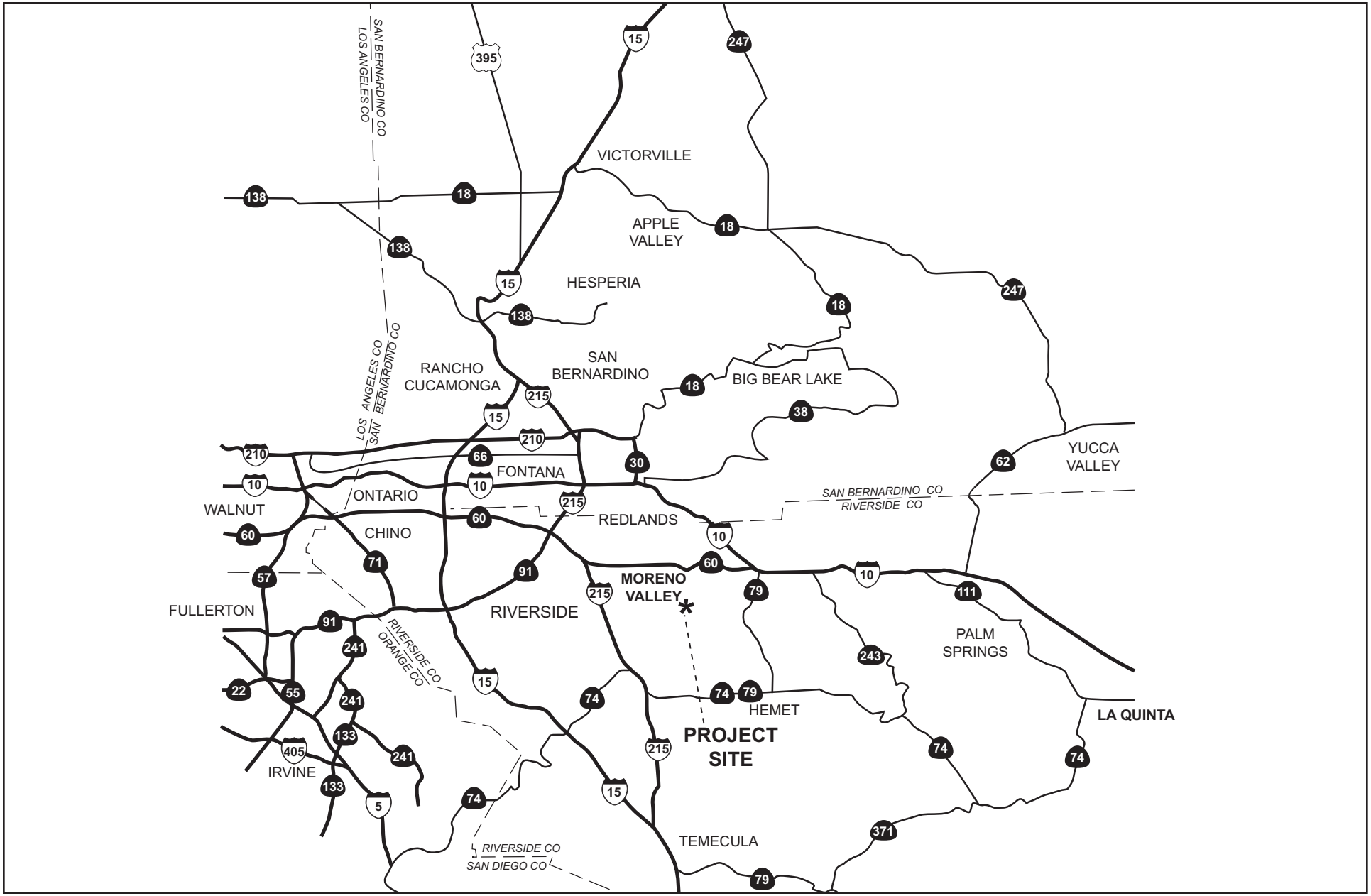
For purposes of analysis, it is assumed that 100 percent of the parcels in the Mixed Use Overlay Districts (which include Housing Element Calculation 3 and 5 areas) and the Housing Element Calculation 4 area would be redeveloped. This takes in account existing vacant and underutilized parcels. Given that the parcel to be rezoned to Community Commercial is currently vacant, there is no need to account for redevelopment of the parcel. The change over existing conditions is shown in *Table 2-1*, *Development Potential in Mixed Use Overlay Districts and Housing Element Calculation 4 Areas*.

At full implementation, the proposed project would include 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses. This represents a change in the following over existing uses:

- Decrease of 46 single-family dwelling units
- Increase of 171,501square feet of commercial uses
- Decrease of 31,786 square feet of office uses
- Increase of 7,160 multi-family dwelling units

Table 2-1
Development Potential in Mixed Use Overlay Districts
and Housing Element Calculation 4 Area

Node/Use	Existing	Proposed	Change Over Existing Conditions
Node 1 – R-30 (Housing Element Calculation 5 Area)			
Single-Family Residential (DU)	15	0	-15
Multi-Family Residential (DU)	3	681	678
Commercial (SF)	177,881	0	-177,881
Acres	27.59		
Node 2 – Mixed Use Overlay District MUI			
Multi-Family Residential (DU)	125	844	719
Commercial (SF)	139,488	211,092	71,604
Acres	24.23		
Node 3 – Mixed Use Overly District MUN			
Multiple-Family Residential (DU)	0	471	471
Commercial (SF)	188,333	117,656	-70,677
Acres	27.01		
Node 4 – Mixed Use Overlay District MUN			
Multiple-Family Residential (DU)	0	871	871
Commercial (SF)	491,405	217,648	-273,757
Acres	33.31		
Node 5 – Mixed Use Overlay District MUN			
Multiple-Family Residential (DU)	0	487	487
Commercial (SF)	0	121,750	121,750
Acres	27.95		
Node 6 – Mixed Use Overlay District MUI & R-30 (Housing Element Calculation 3 Area)			
Single-Family Residential (DU)	21	0	-21
Multi-Family Residential (DU)	0	3,021	3,021
Commercial (SF)	0	263,712	263,712
Office (SF)	31,786	0	-31,786
Acres	111.78		
Housing Element Calculation 4 Area – R-30			
Single-Family Residential (DU)	10	0	-10
Multi-Family Residential (DU)	0	913	913
Acres	41.74		
Rezone Parcel from R-5 to CC			
Commercial	0	236,750	236,750
Acres	21.74		
TOTALS:			
Single-Family Residential (DU)	**46**	**0**	**-46**
Multi-Family Residential (DU)	**128**	**7,288**	**7,160**
Commercial (SF)	**997,107**	**1,168,608**	**171,501**
Office (SF)	**31,786**	**0**	**-31,786**
Acres	**315.35**		



NOT TO SCALE

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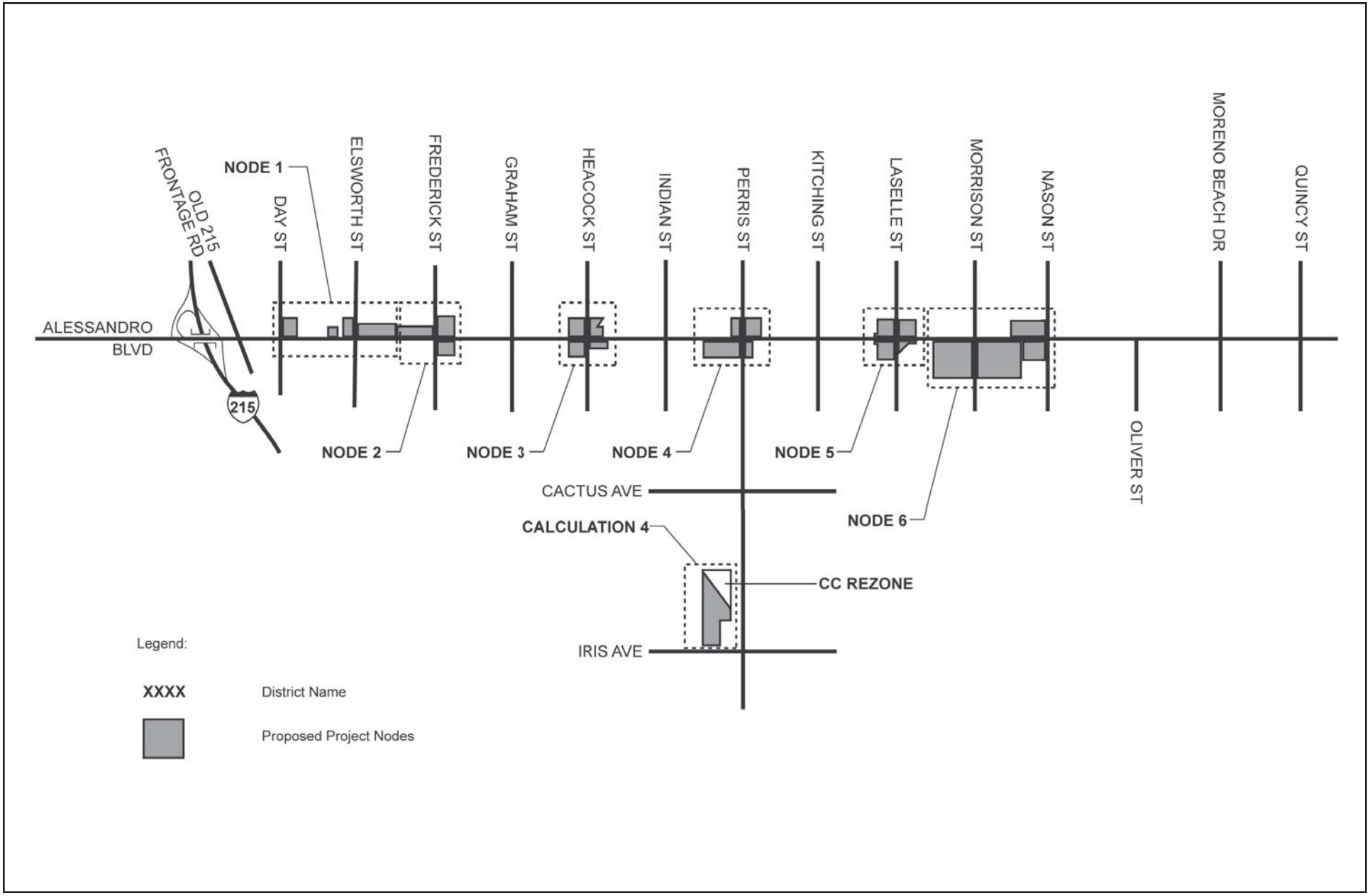
Regional Vicinity

Exhibit 2-1



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Project Location Map and Nodes

Exhibit 2-2

Source: 2008-2014 Housing Element.

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Proposed R-30 General Plan Amendments – Calculation 5

Exhibit 2-3a

Source: 2008-2014 Housing Element.

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Proposed R-30 General Plan Amendments – Calculation 3

Exhibit 2-3b

Source: 2008-2014 Housing Element.

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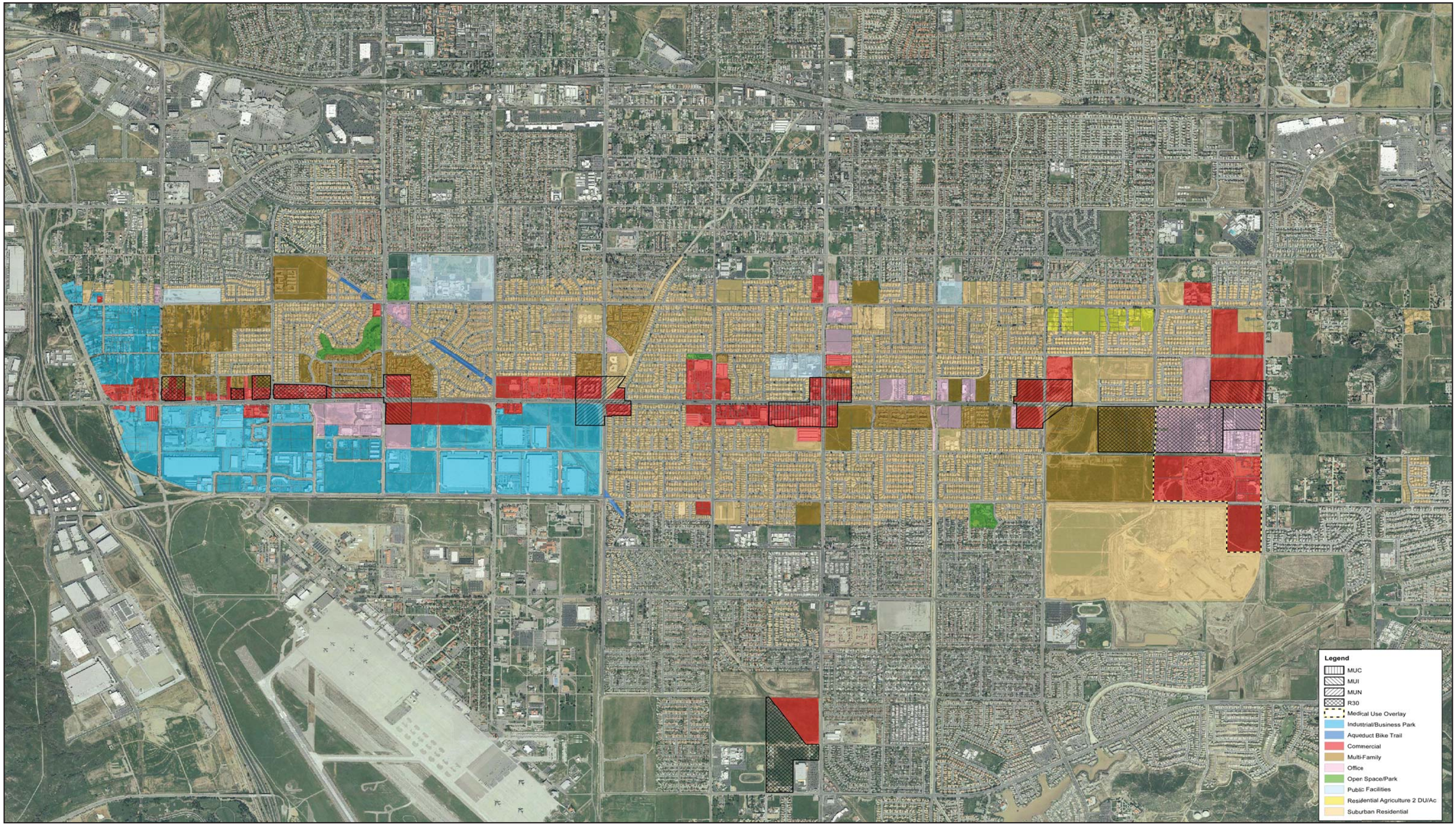
Proposed R-30 General Plan Amendments – Calculation 4

Exhibit 2-3c



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Proposed Zoning Map

Exhibit 2-4

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3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1.	**Project Title:** Alessandro Boulevard Corridor Implementation Project
2.	**Lead Agency Name and Address:** City of Moreno Valley 14177 Frederick Street Moreno Valley, California 92552
3.	**Contact Person and Phone Number:** John Terell, AICP, Planning Official 951.413.3206
4.	**Project Location:** Approximately 5.5-miles of Alessandro Boulevard from the Old 215 Frontage Road on the west to Nason Street on the east and eight parcels north of Iris Avenue and West of Perris Boulevard.
5.	**Project Sponsor's Name and Address:** City of Moreno Valley 14177 Frederick Street Moreno Valley, California 92552
6.	**General Plan Designation:** Various
7.	**Zoning:** Various
8.	**Description of the Project:** The proposed Alessandro Boulevard Corridor Implementation Project (herein referenced as the "project") is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City, and , and 3) amend the general plan and zoning for approximately 21.74 acres of R-5 to Community Commercial. The proposed changes affect approximately 315 acres along or adjacent to Alessandro Boulevard. The project involves an amendment to the General Plan Land Use Map, as well as an amendment to the Moreno Valley Zoning Code and Zoning Map. Additional details regarding the project are provided in Section 2.5, Project Characteristics.
9.	**Surrounding Land Uses and Setting:** The project area is surrounded by a variety of residential and non-residential land uses.
10.	**Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement).** Refer to Section 2.5.1, Project Approvals.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant Impact with Mitigation Incorporated," as indicated by the checklist on the following pages.

	Aesthetics		Land Use and Planning
	Agriculture and Forestry Resources		Mineral Resources
✓	Air Quality	✓	Noise
✓	Biological Resources		Population and Housing
✓	Cultural Resources		Public Services
✓	Geology and Soils		Recreation
✓	Greenhouse Gas Emissions	✓	Transportation/Traffic
✓	Hazards & Hazardous Materials		Utilities & Service Systems
	Hydrology & Water Quality	✓	Mandatory Findings of Significance

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines* and used by the City of Moreno Valley in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.

- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- **Less Than Significant Impact With Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation

measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- **Potentially Significant Impact**. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to a less than significant level.

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4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study/Environmental Checklist. Explanations are provided for each item.

4.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. *General Plan EIR* Figure 5.11-1, Major Scenic Resources, identifies scenic resources within the General Plan planning area. The majority of the project area is not considered a scenic resource and maintains sporadic long-distance views of significant scenic resources within the area. The eastern-most portion of the project area near Nason Street is located within an identified scenic vista. Views to the northwest from uses to the south of Alessandro Boulevard in this area include distant views of the Foothills.

Future development within this area would occur primarily on vacant and/or underutilized land. The *General Plan EIR* determined that with implementation of recommended Mitigation Measures A1 through A6 (Objective 2-10, Policy 7.7.1, Policy 7.7.2, Policy 7.7.3, Policy 7.7.4, and Policy 7.7.5, respectively), potential aesthetic impacts would be reduced to a less than significant level. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development associated with implementation of the proposed project would be reviewed on a project-by-project basis for consistency with the *General Plan* and Municipal Code. The *General Plan* includes the following Objectives and Policies that pertain to visual quality and views:

> Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design. (General Plan EIR Mitigation Measure A1)
>
> Objective 7.7: Where practical, preserve significant visual features significant views and vistas.
>
> Policy 7.7.2 Require new electrical and communication lines to be placed underground. (General Plan EIR Mitigation Measure A2)

Policy 7.7.3 Implement reasonable controls on the size, number and design of signs to minimize degradation of visual quality. (General Plan EIR Mitigation Measure A3)

Projects undergoing major development review would be reviewed to ensure that development proposals do not unnecessarily block scenic views from other buildings or from public ways, or visually dominate their surroundings with respect to mass and scale, to an extent inappropriate to their use, in accordance with *Municipal Code* Section 9.02.030, Development review process. Compliance with the *General Plan* Objectives and Policies and the City's *Municipal Code* would reduce potential impacts to a less than significant level.

Mitigation Measures: No mitigation measures are required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no State scenic highways within the City or the project area. Therefore, implementation of the proposed project would not substantially damage scenic resources within a State scenic highway. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Future development within the project area would occur primarily on vacant and/or underutilized land. The *General Plan EIR* determined that with implementation of recommended Mitigation Measures A1 through A6 (Objective 2-10, Policy 7.7.1, Policy 7.7.2, Policy 7.7.3, Policy 7.7.4, and Policy 7.7.5, respectively), potential aesthetic impacts would be reduced to a less than significant level. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development of the proposed Mixed-Use Overlay Districts, as well as Housing Element Calculation 4 Area and the CC rezone with residential and commercial development would alter the existing visual character or quality of the specific site and its surroundings. However, development of these areas is consistent with and anticipated in the *General Plan,* either through previous long range planning efforts or through recent Zoning and General Plan Amendments within the project area. The visual character of the Alessandro Boulevard corridor lacks design and landscaping consistency and has been shaped by a variety of non-residential uses as well as residential uses with their backyard walls along the corridor and others that front the main corridor. The potential for future development of higher-intensity mixed-uses would alter the existing visual character or quality of the specific site and its surroundings. Housing Element Calculation 4 Area and the CC rezone site are currently vacant and therefore, future development of higher-density residential uses and commercial uses would also alter the existing visual character or quality of the site and its surroundings.

Future development within the project area would have an incremental impact on the loss of vacant or open space; however, development has been anticipated under the *General Plan* for the corridor area and a General Plan Amendment and Zone Change would be processed for Housing Element Calculation 4 Area and the CC rezone site, allowing for intensified residential and commercial development in that area. Future development would be evaluated on a project-by project basis and reviewed to ensure compliance with the development standards established within the Municipal Code, including specific standards for projects within the Mixed-Use Overlay Districts and Commercial area, such as building frontage and open space standards, specific-use development standards, building heights, lighting, and screening to ensure visual impacts from existing developed areas are minimized. Further, all new structures would be reviewed for compliance with the *General Plan* to ensure a high level of architectural design. The creation of the Mixed Use Overlay Districts would implement the *Vision Plan for the*

Alessandro Boulevard Corridor, positively contributing to the overall character and quality of the individual sites and their surroundings. Therefore, future development would not result in the degradation of the existing visual character or quality of the site or its surroundings and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Project implementation would allow for the development of a mixture of land uses at a greater intensity than currently occurs within the project area. New sources of light, including light from building interiors passing through windows and light from building exteriors (i.e., street lighting, building illumination, security lighting, and landscape lighting) would be introduced. Depending upon the location of the light source and its proximity to adjacent light sensitive uses, light introduction can be a nuisance, affecting adjacent areas. Lighting may also cause spillover impacts to nearby sensitive receptors.

Future developments would be subject to review under the City's design and development plan review processes, which would ensure that building materials do not create a substantial source of glare. Residential and commercial uses within the proposed R30 and CC Zoning Districts would be subject to *Municipal Code* Section 9.08.100, Lighting, which specifies lighting restrictions and requirements for non-residential and residential uses. Development in accordance with the Mixed-Use Overlay Districts would be subject to the operational and compatibility standards for mixed-use development. The standards require that lighting shall be incorporated along sidewalks or other pedestrian walkways, plazas, paseos, courtyards, and other common open areas to enhance the pedestrian environment and increase public safety. Additionally, non-residential uses shall be designed, located, and shielded to ensure that they do not adversely impact the residential uses, but shall provide sufficient illumination for access and security purposes consistent with the provisions of *Municipal Code* Section 9.08.100. Therefore, project implementation would not create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Mitigation Measures: No mitigation measures are required.

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4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. *General Plan EIR* Figure 5.8-1, Important Farmlands, identifies the location of important farmlands within the City, including Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. None of the parcels proposed for General Plan and Zone Changes are currently in agricultural production, nor are they identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Most of the sites are identified as Urban and Built-Up Land or Other Land. A few of the sites are identified as Farmland of Local Importance or Farmland of Local Potential. However, these sites have previously been taken out of production in preparation of development. Thus, the proposed project would not result in the conversion of an existing agricultural use to a non-agricultural use. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the *General Plan EIR*, no land within the General Plan planning area is currently under a Williamson Act contract. None of the parcels proposed for General Plan and Zone Changes are currently zoned for agricultural use, however, the City identifies agricultural crops as an allowable use for all of its zoning categories in order to allow for interim agricultural production. However, the project area is not currently being utilized for agricultural production. Thus, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. None of the parcels proposed for General Plan and Zone Changes are currently zoned for forest use, timberland, or timberland zoned Timberland Production. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. None of the parcels proposed for General Plan and Zone Changes are currently zoned for forest use or contain forest land. Future development of the parcels would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Refer to Responses 4.2.a and 4.2.d.

Mitigation Measures: No mitigation measures are required.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?		✓		
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d. Expose sensitive receptors to substantial pollutant concentrations?		✓		
e. Create objectionable odors affecting a substantial number of people?			✓	

The following analysis has been tiered from Section 5.3, Air Quality, of the *City of Moreno Valley General Plan Final Program Environmental Impact Report* (*General Plan EIR*), adopted in July 2006.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact With Mitigation Incorporated. The project area is located within the South Coast Air Basin (SCAB), regulated by the South Coast Air Quality Management District (SCAQMD). The United States Environmental Protection Agency (EPA) has classified the SCAB as a non-attainment area for Federal and State air quality standards. The *General Plan EIR* concluded that *General Plan* implementation could violate the existing Federal, State, and local air quality standards and conflict with the SCAQMD's *2012 Air Quality Management Plan* (AQMP) or the Southern California Association of Governments (SCAG) *Growth Management Plan*. The *General Plan EIR* determined that although *General Plan EIR* Mitigation Measures AQ1 through AQ10 would reduce air quality impacts, air quality impacts would remain significant and unavoidable.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of SCAG's *Regional Comprehensive Plan* (RCP) are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP. Since SCAG's regional growth forecasts are based upon, among other things, land uses specified in general plans, the development proposed under the City's existing *General Plan* would also be consistent with SCAG's regional forecast projections. In turn, this development would also be consistent with the AQMP growth projections. As such, the potential impact that a proposed project would have on implementation of the AQMP can be assessed by comparing the emissions generated from the project's proposed land uses to those generated by the existing *General Plan's* proposed land uses.

The proposed project would not be consistent with the current *General Plan* land use designations, as the proposed project would require an amendment to the existing *General Plan* land use map to designate parcels for the "Residential: Maximum 30 dwelling units per acre" designation, consistent with the adopted Housing Element and rezone approximately 21.74 acres of R-5 to Community Commercial. However, the proposed project would be consistent with the *General Plan* upon implementation of the proposed amendment. As compared to the *General Plan EIR*, project implementation would not result in new or more severe impacts involving conflicts or obstruction of

implementation of the AQMP with implementation of *General Plan EIR* mitigation (refer to Responses 4.3.b through 4.3.e, and Mitigation Measures AQ-1 through AQ-10).

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-10.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

The *General Plan EIR* states that future development in the planning area will generate construction impacts from construction equipment emissions, worker vehicle emissions, and dust from grading and earth-moving operations. Construction emissions for specific development projects will vary depending on the size of the project, amount of grading required, type and quantity of construction equipment, building floor area or number of residential units to be constructed. As such, construction-related emissions cannot be accurately determined at the general plan level of analysis. However, general construction emissions calculations were performed in the *General Plan EIR* to describe typical construction related emissions that would be emitted on a daily basis. The demolition, grading, and building construction emissions calculations were based on a daily development of approximately 4.5 acres within the planning area. According to the *General Plan EIR*, a typical development project allowed under the *General Plan* may result in an average of 18 pounds per day (lbs/day) of PM_{10}, 113 lbs/day of ROG, 154 lbs/day of NO_X, and 141 lbs/day of CO. The *General Plan EIR* notes that PM emissions can be reduced by approximately 50 percent with implementation of SCAQMD Rule 403 (*General Plan EIR* Mitigation Measure AQ1). However, the *General Plan EIR* concluded that construction emissions would remain significant and unavoidable.

The proposed project would result in several construction projects that would generate short-term air emissions similar to the typical development project assumed by the *General Plan EIR*. The proposed project would be required to comply with SCAQMD Rule 403, as stated in *General Plan EIR* Mitigation Measure AQ1 (refer to Mitigation Measure AQ-1). Future construction projects would also be required to comply with SCAQMD Regulation XI, Rule 1113 – Architectural Coating, which provides specifications on painting practices as well as regulates the ROG content of paint. Additionally, the proposed project would implement Mitigation Measure AQ-10, which requires the utilization of the cleanest engines available. Since implementation of *General Plan EIR* Mitigation Measure AQ1 (referenced as Mitigation Measure AQ-1 in this document) and Mitigation Measure AQ-10 are expected to reduce project-related impacts, and since no new significant unavoidable impacts beyond those identified in the *General Plan EIR* would occur, no additional measures are required. Impacts would be less than significant in this regard.

Long-Term Impacts

The *General Plan EIR* states that the major sources of new air pollution would result from the use of natural gas for space heating, cooking and water heating, from vehicles traveling to and from the planning area, from the combustion of fossil fuels at power plants to produce the electricity used within the planning area, and from industrial and commercial uses. The *General Plan EIR* determined that *General Plan* implementation could significantly contribute to existing air quality violations and conflict with the SCAQMD AQMP and SCAG Growth Management Plan. Refer to *Table 4.3-1, General Plan Buildout Long-Term Emissions*, for a summary of the estimated long-term emissions of each *General Plan* alternative. Although implementation of *General Plan EIR* Mitigation Measures AQ2 through AQ9 would reduce air quality impacts, long-term air quality impacts were concluded to remain significant and unavoidable.

Table 4.3-1
General Plan Buildout Long-Term Emissions

Source	Estimated Emissions (pounds/day)[1]			
	ROG	NO_X	CO	PM_{10}
Alternative 1				
Stationary Sources	16,332	2852	11,345	1300
Mobile Sources	9,864	8,886	105,563	56,538
Total Emissions	*26,196*	*11,738*	*116,908*	*57,838*
Alternative 2				
Stationary Sources	17,779	2,805	12,192	1,417
Mobile Sources	8,997	8,009	95,507	51,118
Total Emissions	*26,776*	*10,814*	*107699*	*52,535*
Alternative 3				
Stationary Sources	17,653	2,781	12,110	1,407
Mobile Sources	8,731	7,773	92,653	49,570
Total Emissions	*26,383*	*10,554*	*104,763*	*50,977*

Source: City of Moreno Valley, *Moreno Valley General Plan Final Program EIR*, dated July 2006, Tables 5.3-7 through 5.3-9.

The project proposes the development of 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses generally along the Alessandro Boulevard corridor. Project operations would result in pollutant emissions from two sources: long-term mobile source emissions from vehicles traveling to and from the site, once the project is operational; and long-term stationary source emissions from power and natural gas consumption from the on-site residential uses.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using the California Emissions Estimator Model (CalEEMod). This model predicts emissions from motor vehicle traffic associated with new or modified land uses; refer to Appendix A, Air Quality Emissions Data. At full implementation, the proposed project would construct 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses, which represents a decrease of 46 single-family dwelling units, an increase of 171,501 square feet of commercial/retail uses, a decrease of 31,786 square feet of commercial/office uses, and an increase of 7,160 multi-family dwelling units. According to the *Alessandro Boulevard Corridor Implementation Project Traffic Impact Analysis*, the proposed project would generate a net increase of approximately 45,915 average daily trips (ADT). *Table 4.3-2*, *Project-Related Operational Air Emissions*, presents the existing, proposed, and anticipated net mobile source emissions associated with the proposed project.

Table 4.3-2
Project-Related Operational Air Emissions

Source	Estimated Emissions (pounds/day) [1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Emissions						
Area Sources	50.48	1.02	72.08	0.14	9.28	9.28
Energy Sources	0.19	1.67	0.98	0.01	0.13	0.13
Mobile Sources	83.21	223.41	680.70	2.05	239.79	13.23
Total Emissions	*133.88*	*226.10*	*753.76*	*2.20*	*249.20*	*22.64*
Proposed Unmitigated Emissions						
Area Sources	984.31	42.55	3,019.04	5.86	388.74	388.65
Energy Sources	4.09	34.96	15.18	0.22	2.82	2.82
Mobile Sources	237.58	598.53	2,089.17	7.18	773.60	41.88
Total Emissions	*1,225.98*	*676.04*	*6,123.39*	*13.26*	*1,164.99*	*433.18*
Net Increase Over Existing Emissions	***+1,092.10***	***+449.94***	***+5,369.63***	***+11.06***	***+915.79***	***+410.54***
Notes: 1 – Based on CalEEMod modeling results, worst-case seasonal emissions for area and mobile emissions have been modeled.						
Refer to Appendix A, Air Quality Emissions Data, for assumptions used in this analysis.						

General Plan EIR Mitigation Measures AQ3 through AQ9 (restated as Mitigation Measures AQ-3 through AQ-9 below) would help reduce mobile source emissions by implementing regional air quality strategies, encouraging park-and-ride facilities, encouraging express transit, ensuring adequate bus stops and turnout areas are provided, integrating bikeways into the circulation system, and implementing transportation demand management strategies. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no greater impacts than previously identified. Since implementation of the *General Plan EIR* mitigation measures are expected to reduce project-related impacts, and since no new significant unavoidable impacts beyond those identified in the *General Plan EIR* would occur, no additional measures are required.

Stationary Source Emissions

Stationary source emissions would be generated due to an increased demand for electrical energy and natural gas resulting from project development. This conclusion is based on the supposition that those power plants supplying electricity to the site are utilizing fossil fuels. Electric power generating plants are distributed throughout the SCAB and western United States, and their emissions contribute to the total regional pollutant burden. The primary use of natural gas by the proposed project would be for combustion to produce space, water, and other miscellaneous heating, air conditioning, consumer products, and landscaping. As indicated in *Table 4.3-2*, the proposed project's stationary (energy and area) source emissions would exceed the existing emissions, as well as the SCAQMD thresholds for all criteria pollutants. Implementation of *General Plan EIR* Mitigation Measure AQ2 (restated as Mitigation Measure AQ-2 below) would further reduce area source emissions by requiring construction to comply with the requirements of Title 24. Since implementation of the *General Plan EIR* mitigation measures are expected to reduce project-related impacts, and since no new significant unavoidable impacts beyond those identified in the *General Plan EIR* would occur, no additional measures are required.

Mitigation Measures:

AQ-1 Grading activities shall comply with South Coast Air Quality Management District Rule 403 regarding the control of fugitive dust. Additionally, implementation of the following measures would further reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Gravel bed trackout aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site roads shall be paved as soon as feasible, watered twice daily, or chemically stabilized;
- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered/tarped to prevent excessive amounts of dust prior to departing the job site;
- Reroute construction trucks away from congested streets or sensitive receptor areas;
- Track-out devices shall be used at all construction site access points; and
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site.

(Source: Expanded from *General Plan EIR* Mitigation Measure AQ1)

AQ-2 Building construction shall comply with the energy conservation requirements of Title 24 of the California Administrative Code.

(Source: *General Plan EIR* Mitigation Measure AQ2)

AQ-3 Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.

(Source: *General Plan EIR* Mitigation Measure AQ3)

AQ-4 Encourage the financing and construction of park-and-ride facilities.

(Source: *General Plan EIR* Mitigation Measure AQ4)

AQ-5 Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange, and Los Angeles Counties.

(Source: *General Plan EIR* Mitigation Measure AQ5)

AQ-6 Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations referenced in the Inland Empire ITS Strategic Plan.

(Source: *General Plan EIR* Mitigation Measure AQ6)

AQ-7 Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.

(Source: *General Plan EIR* Mitigation Measure AQ7)

AQ-8 Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.

(Source: *General Plan EIR* Mitigation Measure AQ8)

AQ-9 Implement Transportation demand management (TDM) strategies that reduce congestion in the peak travel hours. Examples include carpooling, telecommuting, and flexible work hours.

(Source: *General Plan EIR* Mitigation Measure AQ9)

AQ-10 The following measures shall be implemented during construction to substantially reduce NO_X related emissions. They shall be included in the Grading Plan, Building Plans, and contract specifications. Contract specification language shall be reviewed by the City prior to issuance of a grading permit.

- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes, and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation and SCAQMD Rule 2449.
- Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NO_X emissions requirements
- The following note shall be included on all grading plans: During project construction, all internal combustion engines/construction, equipment operating on the project site shall meet EPA-Certified Tier 3 emissions standards, or higher according to the following:
  - January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
  - Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than

what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

- The contractor and applicant, if the applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.
- Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2.
- Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes and provide temporary traffic controls such as a flag person during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- Schedule construction operations affecting traffic for off-peak hours to the best extent when possible.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include, but would not be limited to, advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service.)
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact With Mitigation Incorporated. According to the *General Plan EIR*, General Plan buildout would result in a cumulatively considerable net increase of criteria pollutants (during construction and operations) for which the project region is nonattainment under applicable federal or state ambient air quality standard. The *General Plan EIR* concluded that despite implementation of the recommended mitigation measures (*General Plan EIR* Mitigation Measures AQ1 through AQ9), which would reduce this impact, a significant and unavoidable impact would occur.

Cumulative Construction Impacts

With respect to the proposed project's construction-period air quality emissions and cumulative SCAB-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal Clean Air Act mandates. As such, the proposed project would be subject to compliance with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures (refer to Response 4.3.b). In addition, the proposed project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the SCAB, which would include related projects. Therefore, it can be reasonably inferred that the project-related construction emissions, in combination with those from other projects in the area, could substantially deteriorate the local air quality.

While the proposed project could contribute to cumulatively considerable construction-related impacts, the proposed project would be consistent with the conclusions in the *General Plan EIR*, as discussed in Response 4.3.b. Therefore, no new cumulative construction impacts would occur.

Cumulative Operational Impacts

The proposed project's operational emissions would exceed existing emissions as well as SCAQMD thresholds, and could contribute to SCAB-wide regional air quality impacts (refer to Response 4.3.b). Adherence to *General Plan EIR* mitigation measures and SCAQMD rules and regulations would help reduce impacts related to cumulative conditions. While the proposed project could still contribute a cumulatively considerable net increase of any nonattainment criteria pollutant, the proposed project would be consistent with the conclusions within the *General Plan EIR,* and no new cumulative operational impacts would occur.

Mitigation Measures AQ-1 through AQ-10 are required to ensure that cumulative impacts remain consistent with the conclusions in the *General Plan EIR*.

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-10. No additional mitigation measures are required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact With Mitigation Incorporated. According to the *General Plan EIR*, future development under the *General Plan* has the potential to increase the exposure of sensitive receptors to increased air pollutant levels associated with CO. Several intersections throughout the City would operate at level of service (LOS) E or worse, resulting in localized CO "hot spots." The *General Plan EIR* determined that impacts to sensitive receptors would be significant and unavoidable.

CO Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.). To identify CO hotspots, the SCAQMD requires a CO microscale hotspot analysis when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service (LOS) D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. However, projected intersection capacity/queuing analyses are unknown, as no specific development proposals have yet been formulated.

The Basin is designated as an attainment area for State and Federal CO standards. There has been a decline in CO emissions even though Vehicle Miles Traveled (VMT) on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997, while VMT increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin, and would likely experience the highest CO concentrations. Of these locations, the Wilshire Boulevard/Veteran Avenue intersection experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately

100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any locations within the project corridor or at affected intersections in the project area due to the volume of traffic that would occur as a result of the proposed project. Therefore, no new impacts beyond those identified in the *General Plan EIR* would occur.

Other Criteria Pollutants

As shown in Response 4.3.b, project implementation would result in significant short- and long-term emissions for all criteria pollutants except for SO_X, consistent with the conclusions of the *General Plan EIR.* Therefore, it is anticipated that the proposed project would also result in significant localized impacts. However, as the proposed project is consistent with the conclusions with the *General Plan EIR,* no new impacts would occur in this regard. Mitigation Measures AQ-1 through AQ-9 are required to ensure that cumulative impacts remain consistent with the conclusions in the *General Plan EIR*.

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-9. No additional mitigation measures are required.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. According to the *General Plan EIR*, future construction activity allowed under the *General Plan* could generate objectionable odors. However, these odors would be short-term in nature. Future industrial and commercial uses could also generate objectionable odors. Existing SCAQMD regulations regarding odor complaints would reduce any potential impacts associated with odors. The *General Plan EIR* concluded that odor impacts would be less than significant.

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project proposes the construction of multi-family residential dwelling units and commercial uses. Due to its nature and scope, the proposed project would not involve activities that would create objectionable odors. Project implementation would be consistent with the analysis and conclusions presented in the *General Plan EIR*, and would not result in any additional impacts. Therefore, implementation of the proposed project would not create objectionable odors affecting a substantial number of people.

Mitigation Measures: No mitigation measures are required.

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4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. The project area is located within the geographic areas (sections) identified as "Central" and "East March AFB" in *General Plan EIR* Section 5.9, Biological Resources.

The *General Plan EIR* identifies four regionally sensitive habitats within the General Plan Planning Area: 1) Riparian Habitats/Wetlands (including Open Water and Marsh); 2) Coastal Sage Scrub/Riversidean Alluvial Fan Sage Scrub; 3) Raptor Foraging/Wintering Habitat; and 4) Core Reserves/Designated Critical Habitat. Riparian habitat and Raptor Foraging/Wintering Habitat may occur within the Central section, which includes the project area.

The critical habitat designation for the California Gnatcatcher and the proposed designation for the San Bernardino kangaroo rat include habitat within and/or immediately adjacent to Moreno Valley. These habitat areas are not located within the Central or East March AFB sections.

The Moreno Valley planning area is located within the Multi-Species Habitat Conservation Plan (MSHCP). The MSHCP identifies cores for habitat conservation and linkages for wildlife movement. The Moreno Valley planning area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. The project area is not located within the Reche Canyon/Badlands Area Plan or any subunits of the MSHCP.

General Plan EIR Table 5.9-5 summarizes the rare, threatened, endangered, endemic, and/or sensitive species known for or with a potential to occur in the planning area, based on existing MSHCP and California Department of Fish and Game Natural Diversity Database data, as well as general knowledge of sensitive species occurrences in the identified habitats. Several species have known and/or expected occurrences within the Central and East March AFB Sections. *General Plan EIR* Table 5.9-7 summarizes potential impacts to sensitive faunal species and wildlife resources within the East March Air Force Base and Central Sections, as well as the primary potential habitat impacts.

Future development within the project area would occur on vacant and/or underutilized land, potentially resulting in significant impacts to candidate, sensitive, or special status species. The *General Plan EIR* determined that with implementation of recommended mitigation measures, potential impacts would be reduced to a less than significant level. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Due to the conceptual nature of future development, site specific proposals would require individual assessments of potential impacts to biological resources, including impacts to endangered, threatened, rare, or locally designated species and their habitats; refer to Mitigation Measures BIO-1 and BIO-2. If necessary, mitigation would be required on a project-by-project basis to reduce potential biological impacts to a less than significant level. Therefore, the City would continue to promote the protection of sensitive, rare, threatened, and endangered species found in the project area through the required biological assessments. Following compliance with the recommended mitigation, which requires preparation of a Biological Resources Assessment, as well as the policies, regulations, and guidelines set forth in the City's *General Plan*, *Municipal Code*, and development review process, project implementation would result in less than significant impacts to endangered, threatened, rare, or locally designated species and their habitats. Future development would also require further review for compliance with USFWS and CDFG, as applicable.

Mitigation Measures:

BIO-1 A Biological Resources Assessment shall be conducted for future development projects in known or suspected natural habitat areas by a qualified Biologist, prior to an application being deemed complete, to determine the potential presence/absence of candidate, sensitive, or special status species, as well as the presence/absence of habitat that would support these species.

BIO-2 If deemed necessary by the site-specific Biological Resources Assessment, a Focused Survey of the proposed development site shall be conducted by a qualified Biologist, prior to any ground disturbance, for sensitive plant and wildlife species that are federally- or state-listed as endangered or threatened, having moderate to high potential for occurrence on the proposed development site.

BIO-3 Where feasible, projects shall be designed to minimize impacts on sensitive habitat

(Source: *General Plan EIR* Mitigation Measure B3).

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. Riparian habitats are limited in the General Plan planning area, restricted to the linear Riparian Scrub areas mapped within the native habitats of the Badlands (Gilman Springs Road-Badlands and Norton-Younglove Sections) and the persisting Riparian Scrub within the more disturbed and developed context of the North-Central and Central Sections. Open water habitats are scattered throughout the General Plan planning area. Marsh occurs only along the extreme southern boundary of the General Plan planning area within the San Jacinto Wildlife Area-Mystic Lake Section, north of the San Jacinto River. The *General Plan EIR* determined that existing federal and state regulations enforce a no net loss policy of wetlands and riparian habitat, which offer a measure of protection and help ensure that impacts are mitigated sufficiently. Additionally, implementation of mitigation would reduce potential impacts wetlands and riparian habitat to a less than significant level. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Small, isolated pockets of Riparian Scrub have been identified within the Central section; although Riparian Scrub has not been identified within the Alessandro Boulevard Corridor Nodes. However, due to the conceptual nature of the future development, proposals would require individual assessments of potential impacts to biological resources, including impacts to riparian habitats or other sensitive natural communities; refer to Mitigation Measures BIO-1 and BIO-2. Additionally, compliance with *General Plan EIR* mitigation regarding wetlands and riparian vegetation (BIO-4) would further reduce impacts to a less than significant level. Therefore, project implementation would not have an adverse effect on any riparian habitat or other sensitive natural communities with implementation of recommended mitigation. Impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-3. In addition, the following mitigation measure is recommended.

BIO-4 Prior to physical disturbance of any natural drainage course or wetland determined to contain riparian vegetation or otherwise qualify as a "jurisdictional" wetland or Non-wetland Water of the U.S., the applicant shall obtain a Streambed Alteration Agreement and/or permit, or written waiver of the requirement for such an agreement or permit, from all resource agencies with jurisdiction over such areas (CDFG and ACOE).

(Source: *General Plan EIR* Mitigation Measure B4).

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact With Mitigation Incorporated. The *General Plan EIR* states that existing federal and state regulations provide protection against habitat loss impacts for all jurisdictional wetlands and Non-wetland Waters of the U.S./Streambeds. It is assumed that any potential impacts assessed would be mitigated to a level below significance through compliance with the state and federal statues regulating these resources. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

No wetlands are known to occur within the Alessandro Boulevard Corridor Nodes. Future development within the project area would be required to comply with *General Plan EIR* mitigation regarding wetlands and riparian vegetation (BIO-4). Therefore, project implementation would not have an adverse effect on any federally protected wetlands with implementation of recommended mitigation. Impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure BIO-4. No additional mitigation measures are required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The MSHCP identifies cores for habitat conservation and linkages for wildlife movement within the Moreno Valley planning area. The project area is not located within the Reche Canyon/Badlands Area Plan or any subunits of the MSHCP. Therefore, implementation of the proposed project would not interfere with any corridors or linkages associated with the MSHCP. The project area and surrounding areas are largely developed and/or surrounded by existing development and do not provide for the movement of any species or impede the use of native wildlife nursery sites. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. *Municipal Code* Chapter 3.48, Western Riverside Multi-Species Habitat Conservation Plan Fee Program Ordinance, requires development projects within the City to pay a local development mitigation fee to assist in providing revenue to acquire and preserve vegetation communities and natural areas within the City and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species. Future development within the project area would be required to pay the applicable fee in place at the time prior to issuance of a building permit. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Moreno Valley planning area is located within the Multi-Species Habitat Conservation Plan (MSHCP). The MSHCP identifies cores for habitat conservation and linkages for wildlife movement. The Moreno Valley planning area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. The project area is not located within the Reche Canyon/Badlands Area Plan or any subunits of the MSHCP. Thus, project implementation would not conflict with the provisions of the MSHCP, and no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?		✓		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?		✓		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d. Disturb any human remains, including those interred outside of formal cemeteries?			✓	

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?

Less Than Significant Impact With Mitigation Incorporated. *General Plan EIR* Figure 5.10-1, Locations of Listed Historic Resource Inventory Structures, identifies the historic structures identified as part of a historical survey previously conducted by the Riverside County Historical Commission. None of the sites are located within the project area anticipated for future development. However, it is anticipated that future development within the project area would involve the removal of existing structures to allow for redevelopment of the individual project sites. There is the potential for currently unidentified historic structures to occur within the project area and therefore be impacted by future site-specific development. Any site determined by the City to potentially contain a historical structure would be required to comply with Mitigation Measure CUL-1, which would require preparation a Phase I Cultural Resources Study to determine if implementation of the project being proposed at the time would potentially cause a substantial change to any significant historical resource and identify measures to mitigate the known and potential significant effects of the development being proposed, if any. Compliance with Mitigation Measure CUL-1 would reduce potential impacts to historical resources to a less than significant level.

Mitigation Measures:

CUL-1 Prior to consideration by the City of Moreno Valley, future development or infrastructure projects for properties that are vacant, undeveloped, and/or considered to be sensitive for cultural resources by the City of Moreno Valley Planning Department, shall prepare a Phase I Cultural Resources Study of the subject property in accordance with the protocol of the City of Moreno Valley for review and approval by the City of Moreno Valley Planning Department. The Phase I Cultural Resources Study shall determine whether the proposed development would potentially cause a substantial adverse change to any significant paleontological, archaeological, or historic resources. Measures shall be identified to mitigate the known and potential significant effects of the proposed development project, if any.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Less Than Significant Impact With Mitigation Incorporated. According to the *General Plan EIR*, at least 190 prehistoric archaeological locations have been reported within the City of Moreno Valley. *General Plan EIR* Figure 5.10-2, Locations of Prehistoric Sites, identifies Prehistoric Site Complexes, identifies areas with a high potential of containing prehistoric archaeological resources. One of the sites described as being located near the intersection of Lasselle Street and Brodiaea extends north of Alessandro Boulevard within the project area. The area is identified as an isolated rocky outcrop with five milling stations being previously recorded. Furthermore, the majority of Housing Element Calculation 4 Area and the CC rezone site area located on land that is vacant; it is possible that cultural resources could be unearthed during project construction. Thus, future development within the area could impact an archaeological resource. The area includes parcels proposed for a Zone Change and General Plan Amendment to implement the project. However, site-specific development is not being proposed at this time. Future development within the Prehistoric Site Complex would be required to comply with Mitigation Measure CUL-1, which would require preparation a Phase I Cultural Resources Study to determine if implementation of the project being proposed at the time would potentially cause a substantial change to any significant archaeological resource and identify measures to mitigate the known and potential significant effects of the development being proposed, if any. Compliance with Mitigation Measure CUL-1 would reduce potential impacts to archaeological resources to a less than significant level.

Due to the presence of known prehistoric archaeological sites within the City, there is the potential for future development within the City to impact potential unrecorded archaeological resources. Impacts to unrecorded archaeological resources could be significant without mitigation. Since the project does not currently propose site-specific development, it is not known at this time if or to what extent potential unrecorded archaeological resources would be impacted by future development. Compliance with Mitigation Measure CUL-2, which identifies the required actions in the event an unknown resources is unearthed during future site-specific excavation and grading activities, would reduce potential impacts to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure CUL-1. In addition, the following mitigation measure is recommended.

CUL-2 In the event that cultural resources (archaeological, historical, paleontological) are inadvertently unearthed during excavation and grading activities of any future development project, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. If not already retained due to conditions present pursuant to Mitigation Measure CUL-1, the project proponent shall retain a qualified professional (i.e., archaeologist, historian, architect, paleontologist, Native American Tribal monitor), subject to approval by the City of Moreno Valley to evaluate the significance of the find and appropriate course of action. If avoidance of the resource is not feasible, salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. After the find has been appropriately avoided or mitigated, work in the area may resume.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. The Moreno Valley area contains sedimentary rock-units with potential to contain significant nonrenewable paleontological resources which are subject to adverse impacts by ground-disturbing activities. However, much of Moreno Valley is covered with recent alluvium. These sediments overlie fossiliferous sedimentary units of the Mt. Eden Formation and the San Timoteo Formation. According to the *General Plan EIR*, excavation to depths normal for development would probably not penetrate recent alluvial sediments to encounter fossiliferous deposits. *General Plan EIR* Figure 5.10-3, Paleontological Resource Sensitive Areas, displays areas of paleontological resource sensitivity in the Moreno Valley planning area. The project area is located within an area identified as having low potential for paleontological resources. Although it is not anticipated that future development within the project area would impact undiscovered paleontological resources, compliance with Mitigation Measure CUL-2 would reduce potential impacts to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure CUL-2. No additional mitigation measures are required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No conditions exist that suggest human remains are likely to be found within the project area. It is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during future earth removal or disturbance activities. If human remains were found, those remains would require proper treatment in accordance with applicable laws. State of California *Public Resources Health and Safety Code* Sections 7050.5-7055 describe the general provisions for human remains. Specifically, *Health and Safety Code* Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California *Public Resources Code* would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant." If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent human remains until the County Coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard, would be considered less than significant.

Mitigation Measures: No mitigation measures are required.

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4.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?		✓		
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?		✓		
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps (prior to January 1, 1994, "Earthquake Faults Zones" were called "Special Studies Zones"). The San Jacinto Fault passes through the eastern portion of the City. An Alquist-Priolo Special Fault Zone has been established for the San Jacinto Fault.[1] The project area is not located within the Alquist-Priolo Fault Zone of the San Jacinto Fault. Therefore, future development associated with the proposed project would not expose people or structures to potential substantial adverse effects associated with rupture of a known earthquake fault. No impact would occur in this regard.

[1] State of California Department of Conservation, *Alquist-Priolo Earthquake Fault Zone Maps*, http://www.quake.ca.gov/gmaps/ap/ap_maps.htm, accessed June 18, 2012.

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

Less Than Significant Impact With Mitigation Incorporated. The City of Moreno Valley is located within a seismically active region of southern California. According to the *General Plan EIR*, earthquake-generated groundshaking is the most critical and potentially damaging earthquake effect in the City. Three potential sources of strong seismic groundshaking in the area include the San Jacinto Fault, the San Andreas Fault, and the Elsinore Fault. The major source of potential earthquake damage to the area is from activity along the San Jacinto Fault. However, a major earthquake associated with any of these faults could result in moderate to severe groundshaking in the area. Damage to buildings and infrastructure could be expected as a result of groundshaking during a seismic event. The extent and impact of the groundshaking would depend upon several factors, including the particular fault, fault location, distance from the City and magnitude of the earthquake.

The *General Plan EIR* determined that with implementation of recommended mitigation measures, potential impacts associated with geology and soils would be reduced to a less than significant level. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development associated with the proposed project could expose people or structures to adverse effects involving strong seismic ground shaking. In general, the City regulates development (and reduces potential seismic impacts) under the requirements of the *California Building Code* (*CBC*) (refer to *Municipal Code* Chapter 8.20, California Building Code), the Alquist-Priolo Earthquake Fault Zoning Act, local land use policies, *Municipal Code* Title 9, Planning and Zoning, and project specific mitigation measures. The effects of ground shaking would be sufficiently mitigated for buildings designed and constructed in conformance with current building codes and engineering standards. Compliance with the recommended mitigation measures and the following *General Plan* Policies, which require all new development to comply with seismic safety standards, would be required.

Policy 6.1.1 Reduce fault rupture hazards to a level of acceptable risk through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto Fault zone and the high and very high liquefaction hazard zones. Require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented. (General Plan EIR Mitigation Measure GS1)

Policy 6.1.2 Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards. (General Plan EIR Mitigation Measure GS2)

Therefore, future development anticipated by the proposed project would result in less than significant impacts regarding the exposure of people or structures to potential substantial adverse effects involving strong seismic ground shaking.

Mitigation Measures:

GEO-1 Prior to issuance of a Grading Permits, applicants of future developments shall prepare a Geologic and Soils Report addressing site conditions and potential risks involving seismic and geologic hazards, to the satisfaction of the Public Works Department. The Report shall specifically identify potential seismic and

geologic hazards and recommend measures to reduce potential safety impacts. Copies of the Report shall be submitted to Public Works at the time of Grading Plan submittal.

GEO-2 Future development projects shall be designed and graded in accordance with recommendations set forth in the Geologic and Soils Report. The Grading Plan shall incorporate all recommendations to ensure compliance. These recommendations shall be specified in Grading Plans and verified during Plan check. Compliance with the Geologic and Soils Report shall be accomplished by conditioning the project, specifying measures on the Grading Plans, and conducting field inspections.

GEO-3 Prior to issuance of a Building Permit, applicants of future developments shall prepare a Geologic Report addressing site conditions and potential risks involving seismic and geologic hazards, to the satisfaction of the Building Department. The Geologic Report shall specifically identify potential seismic and geologic hazards and recommend measures to reduce potential safety impacts. Copies of the Geologic Report shall be submitted to the Building Department at the time of Building Plan submittal.

GEO-4 Future development projects shall be designed and constructed in accordance with recommendations set forth in the Geologic Report. The Building Plan shall incorporate all recommendations to ensure compliance. These recommendations shall be specified in Building Plans and verified during Plan check. Compliance with the Geologic Report shall be accomplished by conditioning the project, specifying measures on the Construction Plans, and conducting field inspections.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact With Mitigation Incorporated. Liquefaction is a process by which clay-free soil deposits, primarily sands and silts, temporarily lose strength during severe groundshaking and behave as a sticky liquid rather than a solid. Liquefaction occurs primarily in areas of recently deposited sands and silts and in areas of high groundwater levels. Poorly consolidated sediment and high groundwater levels occur most frequently in creekbeds and floodplains. Subsidence involves settlement of under-consolidated soils to form a quicksand-like condition below the ground surface. Subsidence involves settlement of under-consolidated soils that may occur during earthquake shaking. Lurching is the actual displacement or movement of the ground due to the passage of seismic waves.

According to the *General Plan EIR*, the City has seen no evidence of liquefaction events occurring in the community nor has any geotechnical report recently submitted to the City identified liquefaction hazards. However, the Riverside County General Plan has identified a range of liquefaction susceptibility in Moreno Valley from very low with deep groundwater in the northern and eastern portions of the community to very high with shallow groundwater generally west of Perris Boulevard. *General Plan EIR* Figure 5.6-2, Seismic Hazards, identifies areas of potential liquefaction within the City. The area south of Alessandro Boulevard between Heacock Street and Perris Boulevard is identified as having liquefaction potential. This area may include parcels located within the project area. Future development of residential and non-residential uses is anticipated to occur on vacant and underutilized land within the project area, which could expose people or structures to adverse effects involving liquefaction.

The *General Plan EIR* identifies an area in the southeastern portion of the planning area as having experienced subsidence in the past. However, the area is located within the San Jacinto Wildlife Area and/or within the designated floodplain. It was concluded that no significant impact associated with subsidence is anticipated to occur within areas of the City anticipated for future development. Further, the City is not anticipated to experience lurching associated with a seismic event.

As stated, the City regulates development (and reduces potential seismic impacts) under the requirements of the *California Building Code* (*CBC*) (refer to *Municipal Code* Chapter 8.20, California Building Code), the Alquist-Priolo Earthquake Fault Zoning Act, local land use policies, *Municipal Code* Title 9, Planning and Zoning, and project specific mitigation measures. The effects of liquefaction would be sufficiently mitigated for buildings designed and

constructed in conformance with current building codes and engineering standards. Compliance with Mitigation Measures GEO-1 through GEO-4 and General Plan Policies 6.1.1 and 6.1.2, identified above, would be required. Therefore, future development anticipated by the proposed project would result in less than significant impacts regarding the exposure of people or structures to potential substantial adverse effects involving liquefaction.

Mitigation Measures: Refer to Mitigation Measures GEO-1 through GEO-4. No additional mitigation measures are required.

4) Landslides?

No Impact. Seismically-induced landslides occur in areas where steep slopes, unstable geologic features, and/or seismic activity combine to upset the force of gravity and cause earth to move down a hillside. Due to the project area's flat topography, future development associated with the proposed project is not subject to seismic induced landslides. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Clearing and grading for construction associated with future developments anticipated by the proposed project could expose soils to minimal short-term erosion by wind and water, and loss of topsoil. Grading plans for proposed residential and non-residential developments would include an approved drainage and erosion control plan to minimize the impacts from erosion and sedimentation during grading. Additionally, project sites encompassing an area of one or more acres would require compliance with a National Pollutant Discharge Elimination System (NPDES) permit and consequently the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP); refer to Response 4.16.d. Given that future developments would be subject to compliance with *Municipal Code* Chapter 8.10, Stormwater/Urban Runoff Management and Discharge Controls, as well as NPDES requirements for erosion control, grading, and soil remediation, less than significant impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. Landslides, mudslides, rock falls, and soil creep are phenomena earth scientists refer to as "mass wasting." The movement may be rapid (landsliding, rock fall), or gradual (soil creep). These geologic hazards occur in areas where steep slopes, unstable geologic features, heavy rainfall, and/or or seismic activity combine to upset the force of gravity and cause earth to move down a hillside. The project area is relatively flat. Thus, impacts resulting from landslides, mudslides, rock falls, and soil creep or not anticipated to occur. Refer to Response 4.6.a.3. regarding liquefaction, subsidence, and/or lurching.

Mitigation Measures: No mitigation measures are required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact With Mitigation Incorporated. Expansiveness refers to the potential to swell and shrink with repeated cycles of wetting and drying and is a common feature of fine-grained clayey soils. This wetting and drying causes damage due to differential settlement within buildings and other improvements. According to the *General Plan EIR*, some of the soils within the City have poor to fair stability and are considered to be potentially

expansive. Therefore, future development within the project area could be located on expansive soils, creating risk to life or property, unless proper engineering techniques are implemented. Due to the conceptual nature of the future development, proposals would require individual assessments of potential geological impacts, including expansion potential. The effects of expansive soils would be sufficiently mitigated for buildings designed and constructed in conformance with current building codes and engineering standards. Compliance with General Plan policies and recommended mitigation, which establish requirements for site-specific geologic and soils studies, and use of the most current professional standards in building design, would be required. Therefore, the development anticipated by the proposed project would result in less than significant impacts involving expansive soils.

Mitigation Measures: Refer to Mitigation Measures GEO-1 through GEO-4. No additional mitigation measures are required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Sewers are available throughout the City for the disposal of wastewater; thus, use of septic tanks or alternative wastewater disposal systems would not occur.

Mitigation Measures: No mitigation measures are required.

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4.7 GREENHOUSE GASES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		✓		
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		✓		

GREENHOUSE GASES

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Direct GHG emissions include emissions from construction activities, area sources, and mobile (vehicle) sources. Typically, mobile sources make up the majority of direct emissions. Indirect GHG emissions are generated by incremental electricity consumption and waste generation. Electricity consumption is responsible for the majority of indirect emissions.

REGULATORY ENVIRONMENT

State

In June 2005, California's GHG emissions reduction targets were established in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the State in 2007 with Executive Order S-1-07. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO_2 equivalent gram per unit of fuel energy sold in California.

In response to the transportation sector accounting for more than one-half of California's CO_2 emissions, Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the State. Additionally, the California legislature enacted AB 32 (AB 32, Nuñez) in 2006 to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance.

The recommended approach for GHG analysis included in OPR's *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review* (June 19, 2008) release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify

alternatives and/or mitigation measures to reduce the impact below a level of significance.[1] Neither the CEQA statute nor the *CEQA Guidelines* prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

Individual projects incrementally contribute toward the potential for global climate change on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect global climate change, each of these projects incrementally contributes toward the potential for global climate change on a cumulative basis, in concert with all other past, present, and probable future projects. The GHG analysis presented below analyzes whether the proposed project's emissions should be considered cumulatively significant.

Local

The City of Moreno Valley adopted their *Final Greenhouse Gas Analysis* in February 2012. The City has also prepared its *Draft Energy Efficiency and Climate Action Strategy* (*Draft EECAS*), dated April 2012, which incorporates the *Final Greenhouse Gas Analysis*. The *Draft EECAS* includes and expands upon GHG reduction measures included in the *Final Greenhouse Gas Analysis*. The *Final Greenhouse Gas Analysis* and the *Draft EECAS* indicate that the City aims to reduce GHG emissions to 1990 levels by 2020, following the State's GHG reduction target.

SIGNIFICANCE CRITERIA

At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance. That being said, several options are available to lead agencies.

First, lead agencies may elect to rely on thresholds of significance recommended or adopted by state or regional agencies with expertise in the field of global climate change (see *CEQA Guidelines* Section15064.7(c)). However, to date, neither CARB nor South Coast air Quality Management District (SCAQMD) have adopted significance thresholds for GHG emissions for residential or commercial development under CEQA.[2] CARB has suspended all efforts to develop a threshold, and SCAQMD's threshold remains in draft form. Accordingly, this option (i.e., reliance on an adopted threshold) is not viable.

Second, lead agencies may elect to conclude that the significance of GHG emissions under CEQA is too speculative. However, this option is not viable due to the important focus on global climate change created by the various regulatory schemes and scientific determinations cited in this section.

[1] State of California Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review,* June 19, 2008.

[2] Of note, in December 2009, the San Joaquin Valley Unified Air Pollution Control District adopted guidance for use by lead agencies in the valley, in assessing the significance of a project's GHG emissions under CEQA. The guidance relies on the use of performance-based standards, and requires that projects demonstrate a 29 percent reduction in GHG emissions, from business-as-usual, to determine that a project would have a less than significant impact. The guidance is for valley land use agencies and not applicable to areas outside the district. The Bay Area Air Quality Management District (BAAQMD) adopted its own GHG thresholds of significance on June 2, 2010. The threshold is based on quantitative standards including a per capita emission standard and project emission standard as well as a qualitative standard based on compliance with a qualified GHG reduction strategy. The BAAQMD thresholds are based on an analysis of local inventories of GHG emissions and local reduction programs; therefore, they would not be an appropriate basis for a GHG significance threshold in the City of Moreno Valley. Furthermore, On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds and the court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD had complied with CEQA.

Third, lead agencies may elect to use a zero-based threshold, such that any emission of GHGs is significant and unavoidable. However, the use of this type of threshold would indirectly truncate the analysis provided in CEQA documents and the mitigation commitments secured from new development, and could result in the preparation of extensive environmental documentation for even the smallest of projects, thereby inundating lead agencies and creating an administrative burden. Moreover, because the GHG analysis is a cumulative analysis, a zero based threshold would be inconsistent with *CEQA Guidelines* Section 15130(a)(3), which requires that cumulatively significant impacts, such as GHG emissions, be "cumulatively considerable", as defined by Section 15065(a)(3).

Fourth, lead agencies may elect to utilize their own significance criteria, so long as such criteria are informed and supported by substantial evidence. Recent amendments to the CEQA Guidelines, and specifically the addition of CEQA Guidelines Section 15064.4, subdivision (b), relate to the determination of a significance criterion:

> *"A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:*
>
> *(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
> *(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;*
> *(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project."*

CEQA Guidelines Appendix G has been revised to provide some guidance regarding the criteria that may be used to assess whether a project's impacts on global climate change are significant. The Appendix G environmental checklist form asks whether a project would: (i) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or (ii) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Based on the above factors (and particularly the adopted addition of *CEQA Guidelines* Section 15064.4, subdivisions (b)(2) and (b)(3)), this analysis will rely on AB 32 implementation guidance (such as the CARB Scoping Plan) as a benchmark for purposes of this EIR and use the statute to inform their judgment as to whether the proposed project's GHG emissions would result in a significant impact (refer to *CEQA Guidelines*, §15064, subdivision [f][1]). Accordingly, the following significance criterion is used to assess impacts:

Will the project's GHG emissions impede compliance with the GHG emissions reductions mandated in AB 32?

The GHG emission levels will be analyzed to determine whether project approval would impede compliance with the GHG emissions reduction mandate established by the AB 32, which requires that California's GHG emissions limit be reduced to 1990 levels by 2020. As noted in the Scoping Plan,[3] a reduction of 15 percent below today's "business as usual" (BAU) levels is required to meet the goals of AB 32.[4] CARB approved the *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*, on August 19, 2011, and updates the reduction to 16 percent below existing conditions. Therefore, should the project reduce its GHG emissions by 16 percent or greater from today's levels, impacts would be less than significant.

[3] California Air Resources Board, *Climate Change Proposed Scoping Plan: A Framework for Change*, adopted December 2008.

[4] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

IMPACT ANALYSIS

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact With Mitigation Incorporated.

Greenhouse Gas Emissions – Business As Usual General Plan Buildout Year 2030

The BAU GHG emissions for the proposed project under the *General Plan* buildout year (2030) have been calculated. BAU refers to emissions that would be expected to occur in the absence of GHG reduction measures. The proposed project BAU GHG emissions include construction emissions, as well as GHG emissions from operations and forecast trip generation. The California Emissions Estimator Model (CalEEMod) computer model and outputs contained within the Appendix B, Greenhouse Gas Modeling Data, were used to calculate direct and indirect GHG emissions. GHG emissions associated with the proposed project are presented in *Table 4.7-1*, *Business As Usual GHG Emissions – General Plan Buildout Year 2030*. The SCAQMD currently does not have a GHG emissions significance threshold for construction activities. Additionally, as construction details are not available at this level of analysis, GHG emissions from construction activities have not been calculated.

Direct Sources of Greenhouse Gases

Area Source. Area source GHG emissions associated with operations of the proposed project would directly result in 5,505.65 $MTCO_2eq/yr$; refer to *Table 4.7-1*.

Mobile Source. The CalEEMod model relies upon specific land use data to calculate mobile source emissions. The proposed project would directly result in 76,694.45 metric tons of carbon dioxide equivalents[5] per year ($MTCO_2eq/yr$) of mobile source-generated GHG emissions; refer to *Table 4.7-1*.

Table 4.7-1
Business As Usual GHG Emissions – General Plan Buildout Year 2030

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq[3]
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Area Source	5,418.21	2.54	53.34	0.11	34.10	5,505.65
Energy	22,738.43	0.82	17.22	0.39	120.90	22,876.55
Mobile Source	76,645.10	2.35	49.35	0.00	0.00	76,694.45
Solid Waste	929.60	54.94	1,153.74	0.00	0.00	2,083.34
Water Demand	3,271.42	17.28	362.88	0.48	148.80	3,783.10
Total Emissions[3]	***109,002.76***	***77.93***	***1,636.53***	***0.98***	***303.80***	***110,943.09***

Notes:
1. Emissions calculated using CalEEMod computer model.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed January 2013.
3. Totals may be slightly off due to rounding.

Refer to Appendix B, Greenhouse Gas Modeling Data, for detailed model input/output data.

[5] Carbon Dioxide Equivalent (CO2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Indirect Sources of Greenhouse Gases

Energy Consumption. Energy consumption emissions were calculated using the CalEEMod model and specific land use data. Electricity would be provided via Southern California Edison. The proposed project would indirectly result in 22,876.55 $MTCO_2eq/yr$ due to energy consumption; refer to *Table 4.7-1*.

Solid Waste. Solid waste associated with project-related operations would result in 2,083.34 $MTCO_2eq/yr$; refer to *Table 4.7-1*.

Water Demand. The water supply would be provided by groundwater and imported sources. Emissions from indirect energy impacts due to water supply would result in 3,783.10 $MTCO_2eq/yr$; refer to *Table 4.7-1*.

Total Project-Related Sources of Greenhouse Gases. As shown in *Table 4.7-1*, the total amount of project-related BAU GHG emissions for *General Plan* buildout year 2030 from direct and indirect sources combined would total 110,943.09 $MTCO_2eq/yr$.

Greenhouse Gas Emissions – CARB Consistency

Unmitigated GHG emissions (BAU) for the proposed project have been calculated consistent with CARB's updated baseline year noted within CARB's *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*. Mitigated GHG emissions have also been calculated in order to determine whether the proposed project would reduce GHG emissions by at least 16 percent from existing condition BAU levels as required by CARB's *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*. Mitigated emissions accounted for in the CalEEMod model and in *Table 4.7-2*, *Greenhouse Gas Emissions – CARB Consistency*, include the following *Draft EECAS* reduction measures as required by Mitigation Measure GHG-1:

- Install light colored "cool" roofs and cool pavements (*Draft EECAS* Measure C1).
- Require Energy Star equipment and appliances in new construction and renovations (*Draft EECAS* Measure C3).
- Specify no- or low-VOC materials (*Draft EECAS* Measure C4).
- Consider adopting a new energy efficiency ordinance requiring 10 to 15 percent reduction above Title 24 (*Draft EECAS* Measure C5).
- Implement low impact development practices that maintain existing hydrology of the site to manage storm water and protect the environment (*Draft EECAS* Measure C15).
- Integrate reuse and recycling into residential, industrial, institutional, and commercial projects (*Draft EECAS* Measure C24).
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods (*Draft EECAS* Measure C27).
- Reduce unnecessary outdoor lighting (*Draft EECAS* Measure C36).
- Promote use of low flow toilets for homes and businesses (*Draft EECAS* Measure C40).
- Review and update the landscape ordinance to continue lowering use of potable water for landscape irrigation (*Draft EECAS* Measure C41).
- Promote incentives for use of water efficient fixtures and fittings (*Draft EECAS* Measure C42).
- Incorporate water-reducing features into building and landscape design (*Draft EECAS* Measure C45).
- Design buildings to be water efficient. Install water-efficient fixtures and appliances (*Draft EECAS* Measure C46).
- Require 50 percent reduction in irrigation water usage. Limit turf use (*Draft EECAS* Measure C49).
- Work with developers to increase housing near transit through recently adopted mixed-use zones (*Draft EECAS* Measure C53).
- Explore reduced parking minimums required for mixed-use developments to encourage transit and non-motorized transportation (*Draft EECAS* Measure C57).

- Explore greater flexibility with shared parking requirements (*Draft EECAS* Measure C58).
- Apply urban planning principles that encourage high density, mixed-use, walkable/bikeable neighborhoods, and coordinate land-use and transportation with open space systems and promote the efficient delivery of services and goods (*Draft EECAS* Measure C61).
- Explore trip reduction programs such as carpools/vanpools and preferential parking areas with City staff and other large employers (*Draft EECAS* Measure C73).
- Promote school rideshare programs to assist parents/students forming carpools (*Draft EECAS* Measure C74).
- Institute teleconference, telecommute and flexible work hour programs to reduce employee trips at the City and the private sector (*Draft EECAS* Measure C80).
- Encourage businesses to offer discounts for customers who use alternative modes of transportation (*Draft EECAS* Measure C83).
- Install energy efficient lighting (e.g., LED), heating and cooling systems, appliances, equipment, and control systems (*Draft EECAS* Measure C89).
- Implement programs to encourage and increase participation of diverted waste from landfills to meet or exceed state regulation requirements (*Draft EECAS* Measure C108).
- Develop shaded, protected, attractive, and accessible pedestrian paths of travel between building entrances and parking lots, sidewalks, adjacent properties, and public transportation stops (*Draft EECAS* Measure C121).

Table 4.7-2
Greenhouse Gas Emissions – CARB Consistency

Source	CO_2[1]	CH_4[1]		N_2O[1]		Total Metric Tons of CO_2eq[1,4]
	Metric Tons/yr[2]	Metric Tons/yr[2]	Metric Tons of CO_2eq[3]	Metric Tons/yr[2]	Metric Tons of CO_2eq[3]	
Unmitigated Emissions						
Area Source	5,418.21	2.66	55.86	0.11	34.10	5,508.17
Energy	22,378.43	0.82	17.22	0.39	120.90	22,516.55
Mobile Source	103,440.81	9.30	195.30	0.00	0.00	103,636.11
Solid Waste	929.60	54.94	1,153.74	0.00	0.00	2,083.34
Water Demand	3,271.42	17.28	362.88	0.48	148.80	3,783.10
Total Emissions[4]	*135,438.47*	*85.00*	*1,785.00*	*0.98*	*303.80*	*137,527.27*
Mitigated Emissions						
Area Source	4,906.60	0.38	7.98	0.09	27.90	4,942.48
Energy	18,579.46	0.67	14.07	0.33	102.30	18,695.83
Mobile Source	85,547.23	7.92	166.32	0.00	0.00	85,713.55
Solid Waste	464.80	27.47	576.87	0.00	0.00	1,041.67
Water Demand	2,775.43	13.83	290.43	0.39	120.90	3,186.76
Total Emissions[4]	*112,273.52*	*50.27*	*1,055.67*	*0.81*	*251.10*	*113,580.29*
Reduction Between Mitigated And Unmitigated Emissions	***17.41 %***					

Notes:
1. The calculated emissions differ from those presented in *Table 4.7-1, Business As Usual GHG Emissions – General Plan Buildout Year 2013* as they have been adjusted to utilize a baseline year that is consistent with CARB's *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*.
2. Emissions calculated using CalEEMod computer model.
3. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed January 2013.
4. Totals may be slightly off due to rounding.

Refer to Appendix B, Greenhouse Gas Modeling Data, for detailed model input/output data.

Table 4.7-2 depicts the unmitigated (BAU) GHG emissions associated with the proposed project utilizing a baseline year consistent with CARB's *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document.* As seen in *Table 4.7-2*, Mitigation Measure GHG-1 would result in a 17.41 percent reduction from today's levels utilizing CARB's baseline year exceeding the required 16 percent requirement. Therefore, impacts would be less than significant in this regard.

Mitigation Measures:

GHG-1 Future development projects shall incorporate the following *Draft EECAS* reduction measures in order to reduce the project's operational GHG emissions to beyond CARB's required 16 percent reduction:

- Install light colored "cool" roofs and cool pavements (*Draft EECAS* Measure C1).
- Require Energy Star equipment and appliances in new construction and renovations (*Draft EECAS* Measure C3).
- Specify no- or low-VOC materials (*Draft EECAS* Measure C4).
- Consider adopting a new energy efficiency ordinance requiring 10 to 15 percent reduction above Title 24 (*Draft EECAS* Measure C5).
- Implement low impact development practices that maintain existing hydrology of the site to manage storm water and protect the environment (*Draft EECAS* Measure C15).
- Integrate reuse and recycling into residential, industrial, institutional, and commercial projects (*Draft EECAS* Measure C24).
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods (*Draft EECAS* Measure C27).
- Reduce unnecessary outdoor lighting (*Draft EECAS* Measure C36).
- Promote use of low flow toilets for homes and businesses (*Draft EECAS* Measure C40).
- Review and update the landscape ordinance to continue lowering use of potable water for landscape irrigation (*Draft EECAS* Measure C41).
- Promote incentives for use of water efficient fixtures and fittings (*Draft EECAS* Measure C42).
- Incorporate water-reducing features into building and landscape design (*Draft EECAS* Measure C45).
- Design buildings to be water efficient. Install water-efficient fixtures and appliances (*Draft EECAS* Measure C46).
- Require 50 percent reduction in irrigation water usage. Limit turf use (*Draft EECAS* Measure C49)
- Work with developers to increase housing near transit through recently adopted mixed-use zones (*Draft EECAS* Measure C53).
- Explore reduced parking minimums required for mixed-use developments to encourage transit and non-motorized transportation (*Draft EECAS* Measure C57).
- Explore greater flexibility with shared parking requirements (*Draft EECAS* Measure C58).
- Apply urban planning principles that encourage high density, mixed-use, walkable/bikeable neighborhoods, and coordinate land-use and transportation with open space systems and promote the efficient delivery of services and goods (*Draft EECAS* Measure C61).
- Explore trip reduction programs such as carpools/vanpools and preferential parking areas with City staff and other large employers (*Draft EECAS* Measure C73).
- Promote school rideshare programs to assist parents/students forming carpools (*Draft EECAS* Measure C74).
- Institute teleconference, telecommute and flexible work hour programs to reduce employee trips at the City and the private sector (*Draft EECAS* Measure C80).
- Encourage businesses to offer discounts for customers who use alternative modes of transportation (*Draft EECAS* Measure C83).

- Install energy efficient lighting (e.g., LED), heating and cooling systems, appliances, equipment, and control systems (*Draft EECAS* Measure C89).
- Implement programs to encourage and increase participation of diverted waste from landfills to meet or exceed state regulation requirements (*Draft EECAS* Measure C108).
- Develop shaded, protected, attractive, and accessible pedestrian paths of travel between building entrances and parking lots, sidewalks, adjacent properties, and public transportation stops (*Draft EECAS* Measure C121).

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact With Mitigation Incorporated. As previously discussed, the City has prepared its *Final Greenhouse Gas Analysis* and *Draft EECAS*, both of which have been developed to reduce GHG emissions within the City. The *Final Greenhouse Gas Analysis* and the *Draft EECAS* indicate that the City aims to reduce GHG emissions to 1990 levels by 2020, following the State's GHG reduction target.

The City's *Final Greenhouse Gas Analysis* includes a GHG inventory of community wide emissions. Sources of emissions include transportation, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste. According to the *Final Greenhouse Gas Analysis*, the City's GHG emissions were estimated to be 939,639 $MTCO_2eq$ in 2007 and 920,712 $MTCO_2eq$ in 2010. The City has projected BAU GHG emissions for 2020 to be approximately 1,298,543 $MTCO_2eq$. With the implementation of GHG reduction measures, the City is projected to reduce its community-wide emissions to a total of 798,137 $MTCO_2eq$, which is 556 $MTCO_2eq$ below the 2020 reduction target. The City's *Final Greenhouse Gas Analysis* has been incorporated into the *Draft EECAS*.

The *Draft EECAS* is a policy document which identifies ways that the can reduce energy and water consumption and GHG emissions as an organization (its employees and the operation of its facilities), and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and GHG emissions.[6] The *Draft EECAS* contains three components: Energy Efficiency, Climate Action, and Greenhouse Gas Analysis. The Energy Efficiency section's primary focus is to identify potential energy efficiency measures for the City as an organization, both those that have been implemented and those that could be implemented in the future. In addition, the *Draft EECAS* provides direction and policies to ensure the most effective, practical, and affordable, energy use practices are implemented. The focus of the Climate Action section is to promote measures similar to those identified in the Energy Efficiency section and additional measures that can be implemented by the community's residents and businesses to reduce GHG emissions on a community-wide basis. The *Draft EECAS* includes an analysis of existing and future GHG emissions community wide and provides a set of policies to guide efforts to reduce GHG emissions to meet or exceed State requirements without unduly compromising other community goals. The Greenhouse Gas Analysis section provides an overview of the City's *Final Greenhouse Gas Analysis*. The Energy Efficiency section applies to City owned and operated facilities and, therefore, doesn't apply to the proposed project, which would facilitate the development of residential and commercial uses. The focus of the Climate Action Strategy section is to promote measures similar to those identified in the Energy Efficiency section and additional measures that can be implemented by the community's residents and businesses to reduce GHG emissions on a community-wide basis. The Climate Action Strategy section includes an analysis of existing and future GHG emissions community wide and provides a set of policies to guide efforts to reduce GHG emissions to meet or exceed State requirements without unduly compromising other community goals. The reduction measures from the *Draft EECAS* applicable to the proposed project are discussed in Response 4.7.a, and as required by Mitigation Measure GHG-1.

[6] It is noted that the *Draft EECAS* is in draft form for City Council review and comment, and has not yet been vetted through a public process or fulfilled the requirements of CEQA.

The *Final Greenhouse Gas Analysis* and the *Draft EECAS* indicate that the City aims to reduce GHG emissions to 1990 levels by 2020, following the State's AB 32 GHG reduction target. The proposed project would be required to implement GHG reduction measures contained within the *Final Greenhouse Gas Analysis* and the *Draft EECAS* (refer to Mitigation Measure GHG-1). With implementation of applicable *Greenhouse Gas Analysis* and the *Draft EECAS* GHG reduction measures, as discussed in Response 4.7.a, the proposed project would be consistent with the CARB's 16 percent required GHG reduction necessary to comply with the reduction goals of AB 32. Thus, the proposed project would also be consistent with the reduction goals of the *Greenhouse Gas Analysis* and *Draft EECAS*. Therefore, as the proposed project would be consistent with the City's *Final Greenhouse Gas Analysis* and *Draft EECAS* with implementation of Mitigation Measure GHG-1, impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure GHG-1. No additional mitigation measures are required.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		✓		
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Future residential and commercial developments would likely involve the use of limited quantities of hazardous materials such as cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in the regular maintenance of buildings and landscaping. However, no significant amounts of hazardous materials would be utilized, disposed of, or transported in conjunction with future residential developments. With proper use and disposal, household maintenance chemicals are not expected to create hazardous or unhealthful conditions to residents or the public.

Future commercial development may involve the routine transport, use, or disposal of hazardous materials. Due to the conceptual nature of the project, the types and quantities of hazardous substances utilized by the various types of potential future development within the project area would vary and, as a result, the nature of potential hazards would vary. Generally, the exposure of persons to hazardous materials could occur in the following manners: 1) improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments,

particularly by untrained personnel; 2) an accident during transport; 3) environmentally unsound disposal methods; or 4) fire, explosion or other emergencies.

The proposed project would be subject to compliance with existing regulations, standards, and guidelines established by the EPA, State, County, and the City of Moreno Valley related to the storage, use, and disposal of hazardous materials. Both the Federal and State governments require any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. The Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses would be required to submit their plans to the Certified Unified Program Agency (CUPA), which would make the plans available to emergency response personnel. The Risk Management Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to reduce risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable Federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed project would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure of contaminated soil or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

Construction activities associated with future development could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. There is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor for individual development projects would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Demolition of Structures. Since future development would involve urban infill and development/redevelopment of vacant and/or underutilized land, existing structures would likely be demolished prior to construction of new buildings. Although, specific development projects have not been identified, it is assumed that older buildings would be demolished as new residential and commercial uses are developed. Demolition of structures could expose construction personnel and the public to hazardous substances such as asbestos containing materials (ACM) or

lead-based paints (LBP), depending on the age of the structure. Further, the potential exists that construction activities may release potential contaminants that may be present in building materials (e.g., mold, lead, etc.). In addition, the disturbance of soils and demolition of structures could expose construction workers or employees to health or safety risks in the event contaminated structures and/or soils are encountered during construction. Exposure could occur from ACM or LBP in older buildings, or unknown contaminants that have not previously been identified. Federal and State regulations govern the renovation and demolition of structures where ACMs and LBPs are present.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition (Mitigation Measure HAZ-1). If ACM material is found, abatement of asbestos would be required prior to any demolition activities. Also, if paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional (HAZ-2). If lead-based paint is found, abatement would be required to be completed by a qualified Lead Specialist prior to any demolition activities. Compliance with Mitigation Measures HAZ-1 and HAZ-2 and SCAQMD Rule 1403 would reduce potential impacts associated with the demolition of structures to less than significant levels.

Current and Historic Uses. Future development within the project area could result in the conversion of vacant and/or underutilized land to residential and non-residential uses. Hazardous materials conditions may exist relating to historic commercial and industrial uses on these properties. Grading and excavation for future development could expose construction workers and the public to unidentified hazardous substances present in the soil or groundwater. Exposure of the public or the environment to hazardous substances is considered a potentially significant impact. Preparation of a formal Phase I Environmental Site Assessment (ESA) would be required on a project-by-project basis for any vacant, commercial, and industrial properties (current or historical) involving hazardous materials or waste (Mitigation Measure HAZ-3). The Phase I ESA would be prepared in accordance with ASTM Standard Practice E 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition, demolition, or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials Environmental Professional with Phase II/site characterization experience. The Environmental Professional would identify proper remedial activities, if necessary. Therefore, with implementation of Mitigation Measure HAZ-3, potential construction-related accident conditions involving the release of hazardous materials into the environment, as a result of historic uses within the project area would be reduced to less than significant levels. Although remedial processes are yet to be determined (if necessary), remediation activities could also expose construction workers and the public to a variety of potentially hazardous materials. Site remediation activities are strictly controlled by local, state, and federal requirements. Toxic or hazardous materials would be handled in strict accordance with existing regulations, thus, resulting in less than significant impacts.

Despite compliance with Mitigation Measure HAZ-3, accidental conditions may arise during construction of future projects within the project area, if unknown wastes or suspect materials are discovered. In the event the contractor discovers unknown wastes or suspect materials, which are believed to involve hazardous wastes/materials, the contractor would be required to comply with Mitigation Measure HAZ-4, which instructs the contractor on how to proceed. Compliance with HAZ-4 would reduce potential impacts involving the accidental discovery of unknown wastes or suspect materials during construction to less than significant levels.

Long-Term Operational Impacts

Due to the conceptual nature of the proposed project, the amount of hazardous materials that would be utilized as part of long-term operations cannot be predicted. The analysis examines the potential nature and magnitude of risks associated with the accidental release of hazardous materials often used during operations of typical commercial development projects.

Typical incidents that could result in accidental release of hazardous materials involve:

- Leaking storage tanks;
- Spills during transport;
- Inappropriate storage;
- Inappropriate use; and/or
- Natural disasters.

If not remediated immediately and completely, these and other types of incidents could cause contamination of soil, surface water, and groundwater, and toxic fumes. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

Leaking Storage Tanks. Chemicals and wastes stored in aboveground or underground storage tanks would follow guidelines mandated by the Federal and State agencies. Aboveground tanks storing hazardous chemicals would have secondary containment to collect fluids that are accidentally released. Underground storage tanks and connecting piping would be double-walled and would have monitoring devices with alarms installed to constantly monitor for unauthorized releases in accordance with Federal and State standards. Applicable existing standards include the California Environmental Protection Agency's Aboveground Petroleum Storage Act, Cal/OSHA operational requirements, *California Health and Safety Code* Section 25270.7, and Fire Department regulations regarding the installation and operation of aboveground and underground tanks. These existing measures would minimize impacts to a less than significant level.

Off-Site Transport. Transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire, or explosion. The potential exists for licensed vendors to transport hazardous materials to and from the project area. Accidental releases would most likely occur along transport routes leading to and from the project site. Existing street setback requirements would minimize the direct damage that may occur from transportation-related hazardous waste spills. Additionally, the United States Department of Transportation (USDOT) Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the Code of Federal Regulations, and implemented by Title 13 of the *CCR*. Appropriate documentation would be provided for all hazardous waste that is transported in connection with specific project-site activities, as required by existing hazardous materials regulations.

Future development associated with the proposed project would be subject to compliance with all applicable Federal, State, and local laws (including Title 49 of the *Code of Federal Regulations*) and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste. Compliance with these regulations would reduce the likelihood and severity of accidents during transit, thereby ensuring that a less than significant impact would occur in this regard.

Storage and Handling. Hazardous materials must be stored in designated areas designed to prevent accidental release to the environment. *California Building Code* (*CBC*) requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. Compliance with all applicable Federal and State laws related to the storage of hazardous materials would be required to maximize containment and provide for prompt and effective clean-up, if an accidental release occurs, thereby ensuring that a less than significant impact would occur. As stated above, existing standards applying to the installation and operation of aboveground and underground storage tanks include the California Environmental Protection Agency's Aboveground Petroleum Storage Act, Cal/OSHA operational requirements, *California Health and Safety Code* Section 25270.7, and Fontana Fire Protection District regulations.

Hazardous materials use would present a slightly greater risk of accident than hazardous materials storage. However, for those employees who would work with hazardous materials, the amount of hazardous materials that are handled at any one time are generally relatively small, reducing the potential consequences of an accident during handling. The Fire Department would respond to hazardous materials incidents. Major hazardous materials accidents associated with commercial uses are infrequent and additional emergency response capabilities are not anticipated to be necessary to respond to potential incidents that could result from the proposed project. In addition, the CUPA would require that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the CUPA, which makes the plans available to emergency response personnel. The Risk Management Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

In summary, compliance with the established regulatory framework and recommended mitigation would ensure that potential impacts are less than significant by requiring compliance with applicable laws and regulations that would reduce the risk of hazardous materials use, transportation, and handling through the implementation of established safety practices, procedures, and reporting requirements.

Mitigation Measures:

HAZ-1 Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403.

HAZ-2 If paint is separated from building materials (chemically or physically) during demolition of structures, the paint waste shall be evaluated independently from the building material by a qualified Environmental Professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifics exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Project Engineer.

HAZ-3 A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis for any vacant, commercial, and industrial properties involving hazardous materials or waste. The Phase I ESA shall be prepared in accordance with ASTM Standard Practice E 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition, demolition, or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials Environmental Professional with Phase II/site characterization experience prior to land acquisition, demolition, and/or construction. The Environmental Professional shall identify proper remedial activities, if necessary.

HAZ-4 If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;
- Notify the City's Project Engineer;

- Secure the area as directed by the Project Engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact With Mitigation Incorporated. There is the potential for future development projects to be located within one-quarter mile of an existing school. As discussed above in Response 4.7.a, future development of vacant and/or underutilized sites could require remediation of existing contamination. Remediation activities, if any, would include the potential transport of hazardous materials to an approved landfill facility. Mitigation Measures HAZ-1 through HAZ-4, and compliance with applicable Federal, State, and local regulatory requirements pertaining to hazardous materials, would reduce potential impacts associated with the handling of hazardous materials during remedial activities (if any) to less than significant levels.

Future commercial developments are expected to utilize commercial products that could be considered hazardous materials. The secondary activities that would occur with residential and commercial developments (e.g., building and landscape maintenance) would also involve the use of hazardous materials. However, none of these activities would result in hazardous emissions or are considered acutely hazardous. Although the use of hazardous materials during project construction and operations has the potential to result in a health risk to the nearby school, the project is subject to compliance with provisions of the EPA, State, County, and the City of Moreno Valley related to the storage, use, and disposal of hazardous materials. As previously noted, both Federal and State governments require all businesses that handle more than a specified amount of hazardous materials to submit a business plan to a regulatory agency. A future development project's routine transport, use, and disposal of hazardous materials would be subject to a wide range of laws and regulations intended to minimize potential health risks associated with their use or accidental release. Compliance with existing regulations would reduce the risks associated with the exposure of sensitive receptors, including schools, to hazardous materials, to less than significant levels.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-4. No additional mitigation measures are required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. According to the California Department of Toxic Substances Control's EnviroStor database, the project area does not contain any sites on a list of hazardous materials sites compiled pursuant to *Government Code* Section 65962.5.[1] No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. March Air Reserve Base is located southwest of the City, along Interstate 215. Located within two miles of portions of the project area, the Base is a joint-use airport operated by the March Air Reserve Base and the March Inland Port Airport Authority. The Air Force has developed an Air Installation Compatible Use Zone (AICUZ) program

[1] California Department of Toxic Substances Control, *Hazardous Waste and Substance Site List (CORTESE)*, http://www.envirostor.dtsc.ca.gov/public/mandated_reports.asp, accessed January 18, 2013.

to promote compatible land uses in areas around the Base. The AICUZ maps areas of relative potential crashes into four categories: areas on or adjacent to the runway; areas within the clear zone; Accident Potential Zone (APZ) 1 and APZ II. The AICUZ establishes land use limitations within each of these areas.

General Plan EIR Figure 5.5-3, City Areas Affected by Aircraft Hazard Zones, identifies areas of the City located within one of the four AICUZ categories. Existing City zoning regulations limit development within the air crash hazard areas in accordance with the AICUZ program. The project area is not located within areas identified as being affected by aircraft hazards. Thus, future development within the project area would not result in safety hazards for people residing or working in the project area. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project area is not located within the vicinity of a private airstrip; thus, the proposed project would not result in a safety hazard for people residing or working in the project area. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City's *Emergency Operations Plan* (EOP) (July 2006) provides guidance for the City's response to extraordinary emergency situations associated with natural, man-made and technological disasters. The EOP has been developed in accordance with the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). The City's Emergency Operations Center (EOC), located within the Public Safety Building, is a centralized location where emergency response actions can be managed and resource allocations and responses can be tracked and coordinated with the field, operational area, and State. The City has capabilities for an Alternative EOC located within the City Council Chambers, Conference and Recreation Center, or Senior Center.

The EOP identifies responsible agencies, emergency action checklists for hazard-specific responses, and operational data, including listings of resources, key personnel, and essential facilities. The unpredictability of the impact of any disaster on existing streets and highways makes evacuation route designation difficult. Although the routes to be used for an evacuation would depend upon the location of the incident, assuming major streets and freeways are functional, generally the routes would include major arterials and regional routes.

The proposed project anticipates the construction of residential and non-residential uses on parcels that are currently vacant and/or underutilized within the project area. Due to the conceptual nature of the future development, proposals would be analyzed individually in order to address changes in traffic patterns and circulation. As conditions for approval, each project would be required to meet all County Fire Department standards and regulations pertaining to emergency response access and evacuation procedures. With the City's continued implementation of the EOP, and upon compliance with Fire Department guidelines, it is anticipated that future development anticipated by the proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan.

Mitigation Measures: No mitigation measures are required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The City of Moreno Valley is subject to wildland fires. The City's *Local Hazard Mitigation Plan* (October 4, 2011) provides a detailed assessment of wildland fire risks within the City. Figure 5.5-2, Moreno Valley High Fire Area Map, identifies areas of the City located with high fire hazard areas. The project area is not located within a High Fire Hazard Area. Thus, future development within the project area would not expose people or structures to significant impacts associated with wildland fires. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.9 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			✓	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		✓		
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?		✓		
f. Otherwise substantially degrade water quality?			✓	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?		✓		
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		✓		
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j. Inundation by seiche, tsunami, or mudflow?				✓

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control direct storm water discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City is located in the jurisdiction of the Santa Ana RWQCB.

General Plan Conservation Element, Objectives 7.1 and 7.2 and their associated policies are included to limit potential water quality impacts to surface water and groundwater resources. *General Plan* Policy 7.2.2 requires all projects to comply with the discharge permit requirements of the Regional Water Quality Control Board.

Short-Term Construction. Construction controls are separated from other water quality management because the measures are temporary and specific to the type of construction. Construction of future development projects within the project area has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers and sanitary wastes, fuel, and lubricants. Generally, standard safety precautions for handling and storing construction materials can adequately reduce the potential pollution of stormwater by these materials. These types of standard procedures can be extended to non-hazardous stormwater pollutants such as sawdust, concrete washout, and other wastes.

In addition, grading activities can greatly increase erosion processes, leading to impacts on storm drains and sediment loading to storm runoff flows. Two general strategies are recommended to prevent soil materials from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed, and secondly, any development site should be secured to control off-site transport of pollutants.

Future development within the project area could impact water quality resulting in a significant impact. However, future development within the project area would be required to comply with the NPDES permit program. To obtain authorization for discharges of stormwater from construction sites, a Construction General Permit (99-08-DWQ, Effective July 1, 2010) must be obtained for large and small construction activities that result in a total land disturbance of equal to or greater than one acre. Permit coverage is required from the "commencement of construction activities" until "final stabilization." The goal of this permit is to minimize the discharge of stormwater pollutants from construction activity.

To comply with the NPDES requirements, a Notice of Intent (NOI) would need to be prepared and submitted to the California State Water Resources Control Board providing notification and intent to comply with the State of California general permit. Prior to construction, a Storm Water Pollution Prevention Plan (SWPPP) is required for the construction activities on-site. A copy of the SWPPP must be available and implemented at the construction site at all times. The SWPPP outlines the source control and/or treatment control BMPs that would avoid or mitigate runoff pollutants at the construction site. The latest permit is a risk based permit with permit requirements increasing with increasing risk. Each project would be required to assess their risk level prior the development of the SWPPP document. BMPs are identified in the California Stormwater Best Management Practice Handbook - Construction Activity.

Individual development projects would be required to comply with *Municipal Code* Section 8.21.170, National Pollutant Discharge Elimination System (NPDES), which is consistent with the NPDES requirements, including implementation of appropriate BMPs to control stormwater runoff so as to prevent any deterioration of water quality. Following compliance with the City's *General Plan* and requirements of the NPDES and the *Municipal Code*, project implementation would not violate any water quality standards or waste discharge requirements associated with short-term construction activities. Impacts would be less than significant in this regard.

Long-Term Operations. The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). MS4 permits were issued in two phases: Under Phase I, for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities, and Phase II, for smaller municipalities. Under Phase I, the RWQCB have adopted NPDES storm water permits for medium and large municipalities, most of which are issued to a group of co-permittees encompassing an entire metropolitan area. The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what BMPs would be used to address certain program areas.

On January 29, 2010, the Santa Ana RWQCB issued municipal storm water NPDES permit (Order No. R8-2010-0033) to the County of Riverside, including the City of Moreno Valley as Co-Permittee of Riverside County. The newly adopted permit requires the Permittees to update the existing Riverside County Drainage Area Management Plan (DAMP) and incorporate new Low Impact Development (LID) principles and address hydromodification.

Individual developments within the City of Moreno Valley would be required to adhere to the updated DAMP (New Development/Significant Redevelopment Program (Section G) of the Permit), which fulfills the requirements of the Santa Ana Regional Water Quality Board Municipal NPDES Stormwater permit, Order No. R8-2010-0011.

Significant Redevelopment and New Development require the preparation, approval, and implementation of a project-specific Water Quality Management Plan (WQMP). Significant Redevelopment is defined as the addition or creation of 5,000 or more square feet of impervious surface on an existing developed site. Where Significant Redevelopment results in less than a 50 percent increase in existing impervious surfaces, and the existing development site obtained land use approvals before the adoption of the WQMP, the WQMP applies only to the addition and not the entire site. If the redevelopment results in more than a 50 percent increase in impervious area, then a WQMP is required for the entire site. Mitigation for water quality impacts would be required on a project-by-project basis. The new permit would require additional LID measures that address Hydrologic Conditions of Concerns, which would be required on priority projects in addition to identified BMPs.

Future development projects would be required to prepare a WQMP, which would be specific to the expected pollutants that would be present in the stormwater flow from the project site after completion of construction. The WQMP would be required to include site design, source control, and treatment control BMPs to address the specific pollutants anticipated from the project and project site, and would detail the specific operation and maintenance of each BMP. Compliance with an approved Water Quality Management Plan or current analysis/reporting requirements would be a condition of any required planning approval and all additional required items as indicated by the Department of Public Works at the time of submittal.

Following compliance with the City's *General Plan* and requirements of the NPDES and City's *Municipal Code*, project implementation would not violate any water quality standards or waste discharge requirements associated with long-term operations. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The project area is located within the Perris North Groundwater Basin. Groundwater depth ranges from approximately 100 feet to 150 feet below ground surface. There are currently few domestic uses for groundwater in the watershed as the City primarily relies upon imported water.

Future development within the project area would occur on vacant and/or underutilized land, potentially depleting the amount of water that would infiltrate to the groundwater table. The *General Plan EIR* determined that potential impacts to groundwater supplies would be less than significant as domestic water supplies are not reliant on groundwater as a primary source. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Future development within the project area would occur on vacant and/or underutilized land, altering the existing drainage pattern of the site or area. Localized alterations to the existing drainage patterns of the development sites could occur due to project-related grading and increases in the amount of impermeable surfaces on the respective sites from structures and other improvements (i.e., parking lots, driveways, and other hardscapes). The *General Plan EIR* determined that potential drainage impacts would be less than significant with implementation of recommended mitigation (Mitigation Measures HW1 through HW3, Policies 5.4.2, 6.2.5, and 7.2.2, respectively). Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

The project area is primarily developed and/or surrounded by existing development. The proposed project is not anticipated to substantially alter the existing drainage pattern of the site, resulting in substantial erosion or siltation on- or off-site or alter the course of a stream or river. Due to the conceptual nature of future development, site specific proposals would require individual assessments of potential drainage impacts associated with the specific site development. Soil disturbance would temporarily occur during project construction due to earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction and moving, cut and fill activities, and grading. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project sites. Future development projects would be subject to compliance with the requirements set forth in the NPDES Storm Water General Construction Permit for construction activities; refer to Response 4.9.a. Compliance with the NPDES, including preparation of a SWPPP would reduce the volume of sediment-laden runoff discharging from individual sites. Therefore, project implementation would not substantially alter the existing drainage pattern of the site such that substantial erosion or siltation would occur. Impacts would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact With Mitigation Incorporated. Future development within the project area would occur on vacant and/or underutilized land, altering the existing drainage pattern of the site or area. Localized alterations to the existing drainage patterns of the development sites could occur due to project-related grading and increases in the amount of impermeable surfaces on the respective sites from structures and other improvements (i.e., parking lots, driveways, and other hardscapes). The *General Plan EIR* determined that potential drainage impacts would be less than significant with implementation of recommended mitigation. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Increases in storm runoff could exceed the capacity of the existing drainage system, potentially creating localized flooding. Storm runoff would be augmented by nuisance water flows from development, further contributing to street flooding. The anticipated development would increase the demands on the City's drainage system. In general, the development would increase impervious (paved) surfaces, thus, reducing the amount of water that would normally infiltrate into the soil. Due to the conceptual nature of future development, site-specific proposals would require

individual assessments of potential drainage impacts associated with the specific site development. *General Plan* Policy 6.2.5 requires all components of the City's storm drain system to conform to Riverside County Flood Control and Water Conservation District master drainage plans and the requirements of the Federal Emergency Management Agency (*General Plan EIR* Mitigation Measure HW-2). As part of *General Plan EIR* Mitigation Measure HW2, drainage facilities would be designed and constructed with sufficient capacity to safely convey additional stormwater flows. Thus, compliance with the *Moreno Valley Municipal Code* and Mitigation Measure HW-1 would ensure that drainage system capacity impacts are reduced to a less than significant level.

Mitigation Measures:

HW-1 All components of the City's storm drain system shall conform to Riverside County Flood Control and Water Conservation District master drainage plans and the requirements of the Federal Emergency Management Agency.

(Source: *General Plan EIR* Mitigation Measure HW2)

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact With Mitigation Incorporated. Refer to Responses 4.8.a. and 4.8.d.

Mitigation Measures: Refer to Mitigation Measure HW-1. No additional mitigation measures are required.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Refer to Response 4.8.a.

Mitigation Measures: No mitigation measures are required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Less Than Significant Impact With Mitigation Incorporated. General Plan Figure 6-4, Flood Hazards, identifies areas of the City within the 100-year flood zone. A small area within the project between Elsworth and Frederick Streets, north of Alessandro Boulevard is identified as being within the 100-year flood zone with no base flood elevation determined.

The *General Plan EIR* determined that potential impacts associated with future development within the 100-year flood hazard area would be less than significant with implementation of mitigation. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development within the 100-year flood hazard area would be required to design and construct drainage facilities with sufficient capacity to safely convey stormwater flows and ensure that no habitable structure would be placed within a 100-year floodplain as shown on the FEMA Insurance Rate Maps consistent with *General Plan* Policy 6.2.5 (*General Plan EIR* Mitigation Measure HW2). Compliance with Mitigation Measure HW-1 would reduce potential impacts to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure HW-1. No additional mitigation measures are required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.9.g.

Mitigation Measures: Refer to Mitigation Measure HW-1. No additional mitigation measures are required.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. *General Plan* Figure 6-4, Flood Hazards, identifies areas of the City located within a dam inundation area. The project area is not identified as being located within a potential inundation area due to failure of the Lake Perris Dam. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

Housing Element Calculation 4 Area and the CC rezone site are located approximately 2.5 miles northwest of Lake Perris. Due to the distance from the project area and intervening landscape, a seiche associated with Lake Perris would not impact the project area. Additionally, the project area is not located within proximity to the ocean and therefore, would not be subject to tsunami impacts. The project area and surrounding areas are relatively flat and the project area is not positioned directly downslope from an area of potential mudflow. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.10 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?			✓	

a) Physically divide an established community?

No Impact. The proposed project would create Mixed-Use Overlay Districts to implement the Vision Plan for the Alessandro Boulevard Corridor and increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City and Housing Element Calculation 4 Area, while adding commercial square footage on the CC rezone site. Future development and improvements would primarily occur within the Alessandro Boulevard Corridor, with the exception of the Housing Element Calculation 4 Area and the CC rezone site, which are located in the southwestern portion of the City. Within the Alessandro Boulevard corridor, future development would replace vacant and/or underutilized lands with residential and non-residential uses and would involve the redevelopment/reuse of existing developed sites. However, these sites are within developed areas of the City. Implementation of the proposed project would facilitate well-designed mixed-use, development projects that are consistent and compatible with existing neighborhoods and commercial areas and would encourage the development of a unique district character that would provide better connectivity and compatibility of uses throughout the corridor. Future development of Housing Element Calculation 4 Area and the CC rezone site with residential and commercial uses would be consistent with existing residential and intuitional uses within the area. Thus, project implementation would not physically divide an established community or lessen access to community amenities.

Mitigation Measures: No mitigation measures are required.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The City's General Plan and Zoning Districts currently allow for residential development at a maximum density of 30 dwelling units per acre. Project implementation would amend the General Plan Land Use and Zoning Maps to designate specific parcels for the Residential: Maximum 30 dwelling units per acre designation consistent with the Housing Element Objective 8.13, in compliance with State housing element law and specifically the Regional Housing Needs Assessment (RHNA). The Housing Element includes the following Policy and Program to provide opportunities for higher-density residential development:

Policy 8.13.1: Designate land appropriately zoned for the development of higher density housing.

Program 8.24: Process General Plan Amendment to apply R-30 zoning to designated sites or alternative sites of equivalent acreage.

Project implementation would allow for additional residential development within the project area when compared to the residential development potential allowed under the current General Plan designations. However, development within the project area was anticipated by the *General Plan* and development would be consistent with overall *General Plan* growth projections. Project implementation would allow for the future development of 3,560 residential units within Housing Element Calculation 3, 4, and 5 Areas. The proposed changes in land use and zoning are considered a less than significant impact given that they are necessary in order to meet the City's allocated RHNA needs and the overall growth was anticipated in the *General Plan*.

The proposed Mixed-Use Overlay Districts would implement the Vision Plan for the Alessandro Boulevard Corridor. The Zoning Map would be amended to include the Mixed-Use Overlay classifications and the Zoning code would be amended to add new chapters and revise existing sections and chapters to address the new Mixed-Use Overlay Districts. The Mixed-Use Overlay Districts would allow for a mix of residential and non-residential development, allowing for the future development of 6,375 new residential units and 931,858 square feet of commercial uses. The Mixed-Use Overlay Districts would provide regulations to implement the goals and policies of the *General Plan*, the Alessandro Boulevard Corridor Vision Plan, and other similar long-range planning documents aimed at encouraging mixed-use development within the City.

The Housing Element Calculation 4 Area would allow for the future development of 913 new residential units, while the CC rezone site would convert 21.74 acres from a General Plan Designation of R5 to Commercial with a proposed 236,750 square feet of commercial space; a zone change would also be processed. This newly created commercial acreage could provide amenities to existing and future residents in the area and would also complement the commercial center located at the intersection of Iris Avenue and Perris Boulevard. The proposed commercial designation is also consistent with adjacent General Plan Commercial land use designations at the intersection of Iris Avenue and Perris Boulevard. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less Than Significant Impact. Refer to Response 4.4.f.

Mitigation Measures: No mitigation measures are required.

4.11 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. According to the *General Plan EIR*, no regionally or statewide significant mineral resources are located within the General Plan planning area. Thus, implementation of the proposed project would not result in the loss of availability of a significant mineral resource, and no impact to mineral resources would occur.

Mitigation Measures: No mitigation measures are required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. There are no mineral resources located within the City and the City's General Plan Land Use Map does not designate any land for mineral resources. The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.12 NOISE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		✓		
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?		✓		
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?		✓		

The following analysis has been tiered from Section 5.4, Noise, of the *City of Moreno Valley General Plan Final Program Environmental Impact Report* (*General Plan EIR*), adopted in July 2006.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated.

Construction

According to the *General Plan EIR*, implementation of the General Plan would result in additional development which would generate noise during construction activities. The *General Plan EIR* states that construction would result in noise levels ranging from 70 dBA to 105 dBA at a distance of 50 feet. Although construction activities will result in a noise impact at such locations, this impact will be short-term and will cease upon completion of construction. The temporary nature of the impact in conjunction with existing city regulations on hours of operation will lessen the potential of a significant impact due to construction noise. However, noise sensitive land use located adjacent to construction sites may be significantly impacted by future construction in the planning area as a result of groundborne noise levels and vibration, noise levels that exceed existing standards, and excessive temporary or periodic increases in the ambient noise level. *General Plan EIR* Mitigation Measures N5 and N10 will reduce these impacts to a level less than significant.

Construction associated with the proposed project would likely result in exposure of persons to or generation of noise levels in excess of standards established in the *General Plan* or *Noise Ordinance*. Project implementation would be consistent with the analysis and conclusions presented in the *General Plan EIR*, and future development projects would be required to implement *General Plan EIR* Mitigation Measures N5 and N10 (restated as Mitigation Measures

NOI-2 and NOI-6 below) which limit construction activities and associated noise impacts. Therefore, potential impacts were fully analyzed in the *General Plan EIR* and no new or different impacts would result from the proposed project. Thus, with mitigation and compliance with the Noise Ordinance, project implementation would result in a less than significant impact involving the exposure of persons to or generation of construction-related noise levels.

Vehicular Operations

The *General Plan EIR* indicates that future development would generate additional traffic that will increase noise levels along roadways. According to the *General Plan EIR*, sections of Alessandro Boulevard would generate noise levels in excess of 75 dBA at 50 feet from the roadway. This is considered to be a significant impact, as these noise levels would result in a permanent increase in the ambient noise levels. The *General Plan EIR* concluded that implementation of Mitigation Measures N1, N2, N6, N7, and N9 would reduce mobile source noise impacts to less than significant levels.

According to the *Alessandro Boulevard Corridor Implementation Project Traffic Impact Analysis*, the proposed project would generate a net increase of approximately 45,915 average daily trips (ADT). These additional trips would result in elevated traffic noise levels along Alessandro Boulevard and other roadways within the project vicinity. The additional traffic and associated traffic noise generated by the proposed project has been considered in the *General Plan EIR*. Therefore, it is anticipated that project implementation would result in noise levels in excess of 75 dBA at 50 feet from Alessandro Boulevard, and would result in a permanent increase in the ambient noise levels. Therefore, with implementation of *General Plan EIR* Mitigation Measures N6, N7, and N9 (restated as Mitigation Measures NOI-3 through NOI-5 below) would reduce project-related mobile source noise impacts to less than significant levels by minimizing truck noise, requiring insulation for residential uses, and complying with Title 24 building standards. Note that *General Plan EIR* Mitigation Measures N1 and N2 do not apply to the proposed project, as they are specific to single-family residential uses and residential uses along SR-60, which are not proposed as part of the project.

Stationary Source Operations

The *General Plan EIR* states that *General Plan* implementation may result in excessive noise generated by non-residential projects (i.e., industrial uses, commercial uses, restaurants, and bars). The *General Plan EIR* considers these stationary noise sources to be potentially significant due to the proximity of residents and other sensitive land uses. The *General Plan EIR* requires acoustical analyses to be conducted for projects that could potentially affect residential and other sensitive uses. The *General Plan EIR* concluded that impacts would be reduced to less than significant levels with implementation of *General Plan EIR* Mitigation Measures N4, N7, and N9.

The proposed project would allow for the development of 1,168,608 square feet of commercial uses throughout the corridor. Specific commercial uses to be constructed are not known at this level of planning. However, it is anticipated that some commercial uses could result in substantial noise impacts to adjacent sensitive receptors. Therefore, the proposed project would be required to implement *General Plan EIR* Mitigation Measures N4, N7, and N9 (restated as Mitigation Measures NOI-1, NOI-4, and NOI-5 below), which would reduce noise impacts by evaluating commercial and industrial activities, requiring insulation for residential uses, and complying with Title 24 building standards. Thus, the proposed project would be consistent with the *General Plan EIR* and would not result in new or additional impacts.

Mitigation Measures:

NOI-1 New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.

(Source: *General Plan EIR* Mitigation Measure N4, *General Plan* Policy 6.5.1)

NOI-2 Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

(Source: *General Plan EIR* Mitigation Measure N5, *General Plan* Policy 6.5.2)

NOI-3 The City shall reevaluate designated truck routes in terms of noise impact on existing land uses to determine if those established routes and the hours of their use should be adjusted to minimize exposure to truck noise.

(Source: *General Plan EIR* Mitigation Measure N6, *General Plan* Program 6-3)

NOI-4 The following uses shall require mitigation to reduce noise exposure where current or future exterior noise levels exceed 20 CNEL above the desired interior noise level:

a. New single-family and multiple-family residential buildings shall be insulated to achieve an interior noise level of 45 CNEL or less. Such buildings shall include sound-insulating windows, walls, roofs, and ventilation systems. Sound barriers shall also be installed (e.g. masonry walls or walls with berms) between single-family residences and major roadways.
b. New libraries, hospitals, and extended medical care facilities, places of worship and office uses shall be insulated to achieve interior noise levels of 50 CNEL or less.
c. New schools shall be insulated to achieve interior noise levels of 45 CNEL or less.

(Source: *General Plan EIR* Mitigation Measure N7, *General Plan* Policy 6.3.1)

NOI-5 The City shall enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels, and hotels.

(Source: *General Plan EIR* Mitigation Measure N9, *General Plan* Policy 6.3.5)

NOI-6 Building construction shall be prohibited between 8:00 p.m. and 6:00 a.m. during the week and 8:00 p.m. and 7:00 a.m. weekends and holidays.

(Source: *General Plan EIR* Mitigation Measure N10, *General Plan* Policy 6.3.6)

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact With Mitigation Incorporated. As discussed in Response 4.12.a, the *General Plan EIR* concluded that noise sensitive land uses located adjacent to construction sites may be significantly impacted by future construction as a result of groundborne noise levels and vibration. The *General Plan EIR* Mitigation Measures N5 and N10 were identified to reduce these impacts to a level less than significant.

The proposed project would also result in construction activities adjacent to sensitive receptors that result in excess groundborne noise levels and vibration. However, the proposed project would implement *General Plan EIR* Mitigation Measures N5 and N10 (restated as Mitigation Measures NOI-2 and NOI-5 above). Therefore, impacts would be reduced to less than significant levels and the proposed project would not result in any new or different impacts than those previously analyzed in the General *Plan EIR*.

Mitigation Measures: Refer to Mitigation Measures NOI-2 and NOI-6. No additional mitigation measures are required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.12.a.

Mitigation Measures: Refer to Mitigation Measures NOI-1 and NOI-3 through NOI-5. No additional mitigation measures are required.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above the levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.12.a.

Mitigation Measures: Refer to Mitigation Measures NOI-2 and NOI-6. No additional mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact With Mitigation Incorporated. Small portions of the southwestern portion of the City are located within the 75, 65, and 60 CNEL noise contour impact areas of the March Reserve Air Base. Uses within those contours are acceptable or conditionally acceptable. To ensure that "conditionally acceptable" land uses are properly designed to avoid significant noise impacts associated with aircraft operations, *General Plan EIR* Mitigation Measures N3 and N8 are proposed. The *General Plan EIR* concluded that implementation of these measures will reduce the impact associated with aircraft operations to a level less than significant.

A portion of the westernmost area of the project area is located within the 60 and 65 CNEL contours. The proposed project would implement *General Plan EIR* Mitigation Measure N3 (Mitigation Measure NOI-7) to ensure less than significant impacts by discouraging residential development within the 65 CNEL contour area. Thus, the proposed project would be consistent with the *General Plan EIR* and would not result in new or additional impacts beyond those previously analyzed. Note that *General Plan EIR* Mitigation Measures N8 does not apply to the proposed project, as the project corridor is not located within the 70 CNEL contour.

Mitigation Measures:

NOI-7 Discourage residential uses where current or projected exterior noise due to aircraft over flights will exceed 65 CNEL.

(Source: *General Plan EIR* Mitigation Measure N3, Policy 6.3.2)

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.12.e.

Mitigation Measures: Refer to Mitigation Measure NOI-7. No additional mitigation measures are required.

4.13 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			✓	
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			✓	

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. A project could induce population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). Implementation of the proposed project would not induce direct population growth in the City, because the project does not propose site-specific development. However, implementation of the proposed project is intended to accommodate and encourage housing development, in order to meet an existing and projected housing need as established through the Regional Housing Needs Assessment (RHNA) process. The State of California Department of Finance is responsible for developing the total State-wide new housing demand projection. With the State Department of Housing and Community Development, this demand is apportioned to each of the State's regions. The Southern California Association of Governments (SCAG) is responsible for allocating the region's projected new housing demand in each of its member jurisdictions through the RHNA process. The allocation takes into account factors such as market demand for housing, employment opportunities, the availability of suitable sites and public facilities, commuting patterns, type, and tenure of housing need, and others. The Housing Element contains policies and implementation programs that provide for housing development to accommodate the City's share of the regional housing need as identified in the RHNA prepared by SCAG.

The proposed project anticipates a net increase of 7,160 residential units within the project area. Assuming 100 percent occupancy and 3.783 persons per household[1], the population growth associated with the proposed project would be approximately 27,087 persons. This potential population growth would represent an increase of approximately 13.8 percent over the City's 2012 population estimate of 196,495 persons.

The *General Plan EIR* determined that implementation of the *General Plan* would not induce substantial population growth and impacts would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

[1] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*. Sacramento, California, May 2012.

The *General Plan* anticipates an additional 41,179 dwelling units and increase in population of 161,133 persons over existing conditions. Implementation of the proposed project would represent approximately 17.4 percent of the anticipated housing growth and 16.8 percent of the anticipated population growth identified by the *General Plan*.

Potential growth inducing impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts for local governments. SCAG's six-county region is organized into 14 subregions. The City of Moreno Valley is located within the Western Riverside Council of Governments (WRCOG) subregion.

SCAG's 2035 forecast population for the City of Moreno Valley is 255,200 persons, representing a population growth of approximately 111,187 persons (approximately 77 percent) over existing conditions. Thus, project implementation would be consistent with the growth anticipated for the City by SCAG.

In consideration of the project's consistency with SCAG's growth projections and the RHNA's underlying objective to provide the City's fair share of additional housing, and since the proposed project's growth forecast would not exceed the City's *General Plan* forecasts, the proposed project is consistent with the *General Plan*. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. The proposed project anticipates that future development would be accommodated within vacant and/or underutilized land. Project implementation would involve the removal of approximately 46 single-family dwellings. Therefore, future development on underutilized sites could displace existing housing and people, although, it is not anticipated to occur in substantial amounts. Further, the transition of uses from single-family to multi-family and/or non-residential uses would be based on market conditions and would occur over time, given that the project does not propose to acquire these existing residential properties through eminent domain. It is anticipated that existing and future residential development would provide adequate replacement housing within the community. Impacts relative to the displacement of existing housing are considered to be less than significant.

Mitigation Measures: No mitigation measures are required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. Refer to Response 4.12.b.

Mitigation Measures: No mitigation measures are required.

4.14 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection?

Less Than Significant Impact. The City of Moreno Valley contracts with the Riverside County Fire Department to provide fire protection, fire prevention, and emergency services to its residents. The Department consists of a Fire Prevention and Administration Bureau located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center and six fire stations throughout the community.

The *General Plan EIR* determined that potential impacts to fire protection services would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

The City's *General Plan* includes the following Objective and Policies to ensure adequate facilities and services, including fire protection, are provided.

Objective 2.14: Establish and implement comprehensive solutions to the financing of public facilities that adequately distribute costs based on the level of benefit received and the timing of development.

Policy 2.14.1: Conduct periodic review of public facilities impact mitigation fees in accordance with state statutes to ensure that the charges are consistent with the costs of improvements. Utilize the service and mitigation standards contained in the Moreno Valley General Plan as the basis for determining improvement costs.

Policy 2.14.2: Promote the establishment of benefit assessment districts, Mello-Roos Community Facilities Districts, tax increment financing, and other financing mechanisms in combination with programmed capital

improvements to eliminate existing public service and facility gaps, and to provide necessary facilities in advance of the impacts created by development.

Policy 2.14.3: Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Future development associated with implementation of the proposed project would increase the demand for fire protection services and may require improvements to existing facilities or increases in staffing and equipment. The environmental impacts associated with the provision of new or physically altered fire protection facilities would depend upon the location and nature of the proposed facilities, and would undergo separate environmental review pursuant to CEQA.

Due to the conceptual nature of future development, site-specific proposals would require individual assessments of potential impacts to fire protection services. The Riverside County Fire Department would review and comment on each individual site plan submitted, prior to approval. As part of the review, the Riverside County Fire Department would impose standard conditions of approval, including recommending mitigation, which would ensure that individual project impacts on fire protection services are reduced to a less than significant level. Additionally, residential and non-residential developments would be required to pay fire facilities development impact fees in accordance with the *Municipal Code*. Chapter 3.38.060, Fire facilities residential development impact fees, and Chapter 3.42.060, Fire facilities commercial and industrial development impact fees, require development projects to pay development impact fees for the purpose of acquiring, designing, constructing, improving, providing and maintaining fire services facilities provided for in the City's *General Plan* and its adopted Capital Improvement Program.

Implementation of *General Plan* Objectives and Policies related to fire protection, adherence to all standards and conditions, and payment of applicable fees would reduce potential impacts to fire protection services and facilities to a less than significant level.

Mitigation Measures: No mitigation measures are required.

2) Police protection?

Less Than Significant Impact. The City of Moreno Valley Police Department provides law enforcement services and coordinates the overall operations of the Police Department including patrol, traffic enforcement, crime prevention, detective unit, and special enforcement. The Police Department is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center. The department also uses satellite offices in strategic locations throughout the City.

The *General Plan EIR* determined that potential impacts to police protection services would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

The City's *General Plan* includes Objectives 2.14 and Policies 2.14.1, 2.14.2, and 2.14.3 to ensure adequate facilities and services, including police protection, are provided.

Future development associated with implementation of the proposed project would increase the demand for police protection services and may require improvements to existing facilities or increases in staffing and equipment. The environmental impacts associated with the provision of new or physically altered police protection facilities would

depend upon the location and nature of the proposed facilities, and would undergo separate environmental review pursuant to CEQA.

Due to the conceptual nature of future development, site-specific proposals would require individual assessments of potential impacts to police protection services. Future development projects would be reviewed by the Police Department and would be required to adhere to all standards and conditions. Additionally, residential and non-residential developments would be required to pay police facilities development impact fees in accordance with the *Municipal Code*. Chapter 3.38.070, Police facilities residential development impact fees, and Chapter 3.42.070, Police facilities commercial and industrial development impact fees, require development projects to pay development impact fees for the purpose of acquiring, designing, constructing, improving, providing and maintaining police services facilities provided for in the City's *General Plan* and its adopted Capital Improvement Program.

Implementation of *General Plan* Objectives and Policies related to police protection, adherence to all standards and conditions, and payment of applicable fees would reduce potential impacts to police protection services and facilities to a less than significant level.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The project area, with the exception of Housing Element Calculation 4 Area, is located within the Moreno Valley Unified School District. Housing Element Calculation 4 Area is located within the Val Verde School District.

The *General Plan EIR* determined that potential impacts to schools would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development of residential units would increase the City's student population, and may require new school facilities and/or improvements to existing facilities. The degree of impacts to schools would depend upon the size and location of the residential development and the existing condition of the school facilities serving the area. The environmental impacts associated with the provision of new or physically altered school facilities would depend upon the location and nature of the proposed facilities, and would undergo separate environmental review pursuant to CEQA.

Due to the conceptual nature of the future residential development, proposals would require individual assessments of potential impacts to public services, including demands on school facilities and services. As part of the development review process school districts assess Developer Fees against developments, in accordance with SB 50, in order to mitigate impacts resulting from the increased demand for school-related facilities and services. Therefore, impacts to school facilities would be mitigated to less than significant through payment of Developer Fees on a project specific basis. If necessary, additional mitigation would be required to reduce potential impacts to a less than significant level at the time of project specific approvals.

Mitigation Measures: No mitigation measures are required.

4) Parks?

Less Than Significant Impact. The City's Parks and Community Services Department manages and provides maintenance services for City parks and facilities, and provides a wide range of recreation activities, programs, and services throughout the community. According to the City's *Parks, Recreation, and Open Space Comprehensive Master Plan* (September 2010), the City maintains 393.44 acres of parkland. Additionally, the City has access to regional recreation facilities and maintains joint-use agreements with the Moreno Valley and Val Verde Unified School Districts.

The City has an established goal of providing 3.0 acres of parkland per 1,000 residents (General Plan Policy 4.2.7). Based on an existing population of 196,495 persons[1], the City's existing parkland need is 589 acres. Thus, the City has a current parkland shortage of approximately 196 acres.

The *General Plan EIR* determined that potential impacts to parks and recreational facilities would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

The City's *General Plan* includes the following Policies, amongst others, to ensure adequate parks and recreational facilities and services are provided.

> Policy 2.14.3: Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.
>
> Policy 4.2.3: Employ a multifaceted approach in the financing and acquisition, development and maintenance of parkland, including the financing of parklands through development fees, state and federal grant-in-aid programs, gifts and donations, and other sources.
>
> Policy 4.2.5: Work in conjunction with private and public school districts and other public agencies to facilitate the public use of school grounds and facilities for recreational activities. The City shall also encourage the development of park sites adjacent to school facilities to maximize recreational opportunities in Moreno Valley.
>
> Policy 4.2.7: The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.
>
> Policy 4.2.11: Emphasize joint planning and cooperation with all public agencies as the preferred approach to meeting the parks and program needs of Moreno Valley citizens.
>
> Policy 4.2.12: Include multi-functional spaces and facilities in parks to facilitate cultural events.
>
> Policy 4.2.17: Require new development to contribute to the park needs of the City.

[1] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*. Sacramento, California, May 2012.

Future housing development associated with implementation of the proposed project would increase the demands for parkland and recreational facilities, and usage of existing facilities. Additionally, future housing development may require new parks or recreational facilities, and/or improvements to existing facilities. The environmental impacts associated with the provision of new or physically altered parks and recreational facilities would depend upon the location and nature of the proposed facilities, and would undergo separate environmental review pursuant to CEQA. Based on a potential population increase of 27,087 persons[2] associated with the anticipated residential development, the City would need an additional 81 acres of parkland.

Development of future housing, as anticipated by the proposed project, would be subject to compliance with *Municipal Code* Chapter 3.40, Dedication of Land for Park Facilities and Payment of In-Lieu Fees, which requires as a condition of approval of a final subdivision map, parcel map, building permit or occupancy permit, dedication of land, payment of a fee in-lieu thereof, or a combination of both, at the option of the City, for neighborhood and community park or recreational purposes. Future residential development would also be required to compliance with *Municipal* Code Section 3.38.090, Community/recreation center residential development impact fees, which requires any new residential dwelling unit to pay a fee for the purpose of acquiring, designing, constructing, improving, providing and maintaining recreation/community center facilities provided for in the City's *General Plan* and its adopted Capital Improvement Program or an adopted Master Plan of Parks and Recreation Facilities. Dedication of land or payment of in-lieu fees and payment of the community/recreation center development impact fee would reduce potential impacts to a less than significant level. Additionally, compliance with *General Plan* policies would assist in providing parkland and recreational facilities, further reducing potential impacts.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. The *General Plan EIR* determined that potential impacts to other public facilities would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Due to the conceptual nature of the future development, proposals would require individual assessments of potential impacts to public services. Additionally, all development projects would be required to comply with Title 3, Revenue and Finance, of the City's Municipal Code, which establishes development impact fees for library facilities and materials and City Hall facilities, amongst others. Less than significant impacts to public facilities are anticipated with implementation of the proposed project.

Mitigation Measures: No mitigation measures are required.

[2] Based upon a net increase of 7,160 housing units and 3.783 persons per household obtained from the State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*. Sacramento, California, May 2012.

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4.15 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Refer to Response 4.14.a.4.

Mitigation Measures: No mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. Refer to Response 4.14.a.4.

Mitigation Measures: No mitigation measures are required.

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4.16 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		✓		
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e. Result in inadequate emergency access?			✓	
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			✓	

The following analysis has been tiered from Section 5.2, Traffic/Circulation, of the *City of Moreno Valley General Plan Final Program Environmental Impact Report* (*General Plan EIR*), adopted in July 2006.

This section is based upon the Alessandro Boulevard *Corridor Implementation Project Traffic Impact Analysis* (*Traffic Impact Analysis*), November 2012, prepared by RBF Consulting for the proposed project; refer to Appendix C, Traffic Impact Analysis. The purpose of the *Traffic Impact Analysis* is to evaluate potential project impacts related to traffic and circulation in the vicinity of the project area. The evaluation considers impacts on local intersections, roadways, and regional transportation facilities. The following analysis scenarios are evaluated in this study:

- Existing Conditions
- Forecast Existing With Project Conditions
- Forecast General Plan Buildout Without Project Conditions
- Forecast General Plan Buildout With Project Conditions

STUDY AREA

This study evaluates operations at the following 34 roadway segments:

1. Alessandro Boulevard between I-215 Frontage Road and Day Street
2. Alessandro Boulevard between Day Street and Elsworth Street
3. Alessandro Boulevard between Elsworth Street and Frederick Street
4. Alessandro Boulevard between Frederick Street and Graham Street

5. Alessandro Boulevard between Graham Street and Heacock Street
6. Alessandro Boulevard between Heacock Street and Indian Street
7. Alessandro Boulevard between Indian Street and Perris Street
8. Alessandro Boulevard between Perris Street and Kitching Street
9. Alessandro Boulevard between Kitching Street and Lasselle Street
10. Alessandro Boulevard between Lasselle Street and Morrison Street
11. Alessandro Boulevard between Morrison Street and Nason Street
12. Alessandro Boulevard between Nason Street and Oliver Street
13. Alessandro Boulevard between Oliver Street and Moreno Beach Drive
14. Alessandro Boulevard between Moreno Beach Drive and Quincy Street
15. Cactus Avenue west of Perris Street
16. Cactus Avenue east of Perris Street
17. Day Street north of Alessandro Boulevard
18. Frederick Street north of Alessandro Boulevard
19. Frederick Street south of Alessandro Boulevard
20. Heacock Street north of Alessandro Boulevard
21. Heacock Street south of Alessandro Boulevard
22. Perris Street north of Alessandro Boulevard
23. Perris Street south of Alessandro Boulevard
24. Perris Street north of Cactus Avenue
25. Perris Street south of Cactus Avenue
26. Perris Street south of Iris Avenue
27. Lasselle Street north of Alessandro Boulevard
28. Lasselle Street south of Alessandro Boulevard
29. Morrison Street north of Alessandro Boulevard
30. Morrison Street south of Alessandro Boulevard (future)
31. Nason Street north of Alessandro Boulevard
32. Nason Street south of Alessandro Boulevard
33. Moreno Beach Drive north of Alessandro Boulevard
34. Moreno Beach Drive south of Alessandro Boulevard

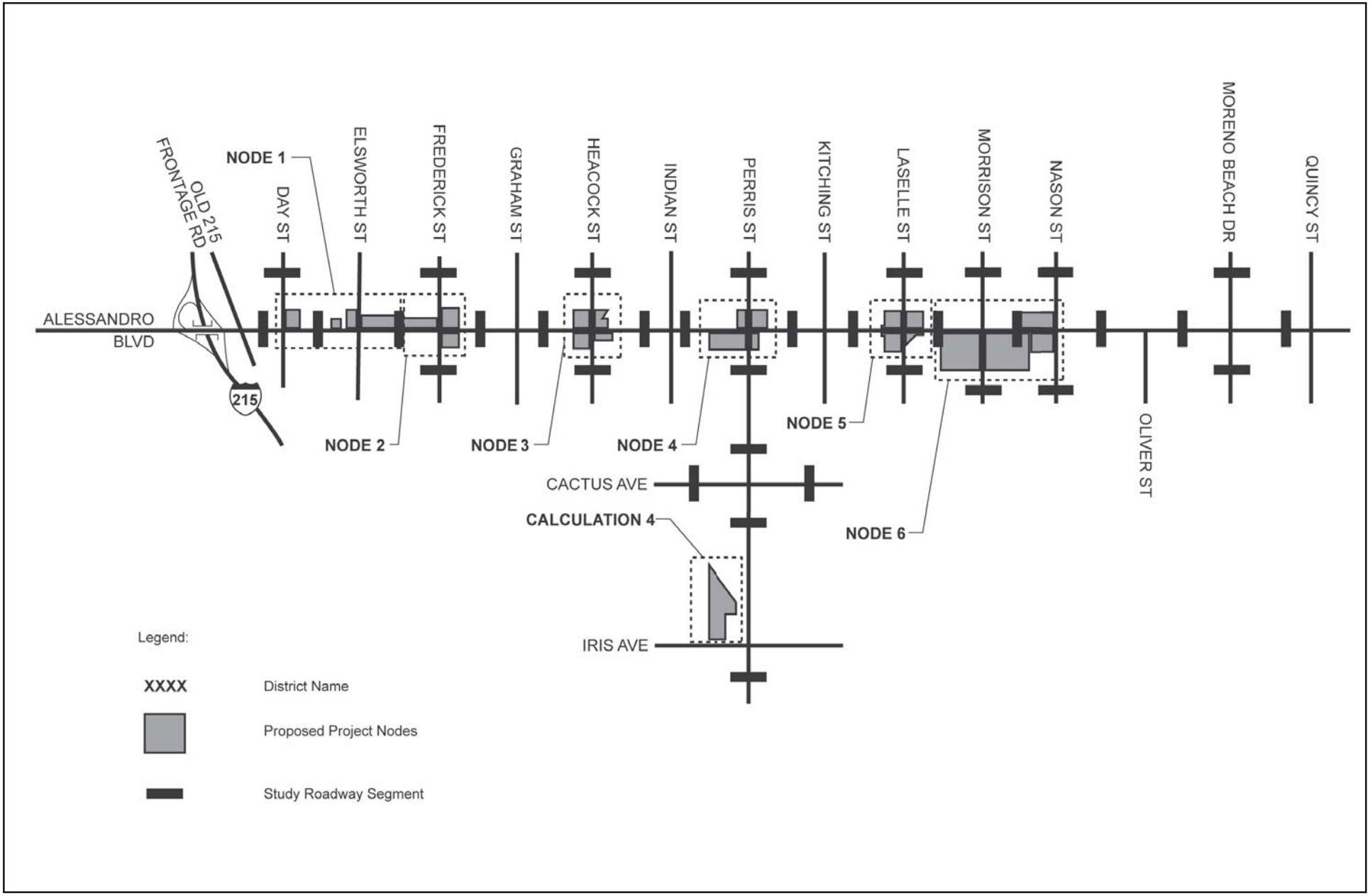
Exhibit 4.16-1, *Study Roadway Segment Locations*, illustrates the locations of the study intersections analyzed within the *Traffic Impact Analysis*.

ANALYSIS METHODOLOGY

Roadway Segment Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segment operation and is based on the capacity of the roadway segment and the volume of traffic using the roadway segment. The City of Moreno Valley utilizes the Volume-to-Capacity (V/C) analysis methodology to determine the operating LOS of the roadway segments.

The V/C analysis methodology describes the operation of a roadway segment using a range of LOS from LOS A (free flow conditions) to LOS F (severely congested conditions), based on the corresponding Volume/Capacity (V/C) ratios shown in *Table 4.16-1*, *V/C and LOS Ranges*.



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Study Roadway Segment Locations

Exhibit 4.16-1

Table 4.16-1
V/C and LOS Ranges

Roadway Segment	
V/C Ratio	**LOS**
≤ 0.60	A
> 0.61 ≤ 0.70	B
> 0.71 ≤ 0.80	C
> 0.81 ≤ 0.90	D
> 0.91 ≤ 1.00	E
> 1.00	F
Source: 1990 Transportation Research Board.	

The *City of Moreno Valley General Plan Circulation Element* recognizes that an LOS of C is optimal. However, it also allows peak hour levels of service in the LOS "D" range in certain locations. These locations include areas of high employment concentration, north/south roads in the vicinity of SR-60 or other locations in already developed areas of the City with geometric constraints that prevent LOS "C" from being achieved.

Generally, the capacity of a roadway is affected by a number of factors, including the street's width, the number of crossing arterials and collectors, the amount of green time give to the street at each signal, the presence or absence of on-street parking, the number of turning lanes at each intersection and the number of driveways.

The City of Moreno Valley roadway capacities used in this analysis to determine V/C ratios are shown in *Table 4.16-2, City of Moreno Valley Roadway Segment Classification and Capacity*.

Table 4.16-2
City of Moreno Valley Roadway Segment Classification and Capacity

Facility Type	Number of Lanes	LOS E Capacity (vehicles)
Divided Major Arterial	6	56,300
Divided Arterial	6	56,300
Divided Arterial	4	37,500
Arterial	4	25,000
Minor Arterial	4	25,000
Collector	2	12,500
Source: City of Moreno Valley Traffic Impact analysis Preparation Guide (August 2007).		

CITY OF MORENO VALLEY PERFORMANCE CRITERIA

The *City of Moreno Valley Circulation Element* recognizes that a LOS of C is optimal; however, LOS D is the acceptable performance at some locations within the City. The LOS Standards within the City are identified within the Circulation Element by roadway segment and are summarized in *Table 4.16-3, Study Roadway Segment Acceptable LOS Target*.

Table 4.16-3
Study Roadway Segment Acceptable LOS Target

Roadway Segment		Acceptable LOS
1	Alessandro Boulevard between Old 215 Frontage Road & Day Street	D
2	Alessandro Boulevard between Day Street & Elsworth Street	D
3	Alessandro Boulevard between Elsworth Street & Frederick Street	D
4	Alessandro Boulevard between Frederick Street Graham Street	D
5	Alessandro Boulevard between Graham Street & Heacock Street	D
6	Alessandro Boulevard between Heacock Street & Indian Street	D
7	Alessandro Boulevard between Indian Street & Perris Street	D
8	Alessandro Boulevard between Perris Street & Kitching Street	D
9	Alessandro Boulevard between Kitching Street & Lasselle Street	D
10	Alessandro Boulevard between Lasselle Street & Morrison Street	D
11	Alessandro Boulevard between Morrison Street & Nason Street	D
12	Alessandro Boulevard between Nason Street & Oliver Street	C
13	Alessandro Boulevard between Oliver Street & Moreno Beach Drive	C
14	Alessandro Boulevard between Moreno Beach Drive & Quincy Street	C
15	Cactus Avenue west of Perris Street	C
16	Cactus Avenue east of Perris Street	C
17	Day Street north of Alessandro Boulevard	D
18	Frederick Street north of Alessandro Boulevard	C
19	Frederick Street south of Alessandro Boulevard	D
20	Heacock Street north of Alessandro Boulevard	D
21	Heacock Street south of Alessandro Boulevard	D
22	Perris Street north of Alessandro Boulevard	D
23	Perris Street south of Alessandro Boulevard	D
24	Perris Street north of Cactus Avenue	D
25	Perris Street south of Cactus Avenue	D
26	Perris Street south of Iris Avenue	D
27	Lasselle Street north of Alessandro Boulevard	D
28	Lasselle Street south of Alessandro Boulevard	D
29	Morrison Street north of Alessandro Boulevard	C
30	Morrison Street south of Alessandro Boulevard (future)	D
31	Nason Street north of Alessandro Boulevard	C
32	Nason Street south of Alessandro Boulevard	D
33	Moreno Beach Drive north of Alessandro Boulevard	D
34	Moreno Beach Drive south of Alessandro Boulevard	D

Source: *City of Moreno Valley Traffic Impact Analysis Preparation Guide*, August 2007.

CITY OF MORENO VALLEY THRESHOLDS OF SIGNIFICANCE

Consistent with the General Plan Circulation Element traffic analysis, a significant impact would occur at roadway segments if implementation of the project would:

- Cause an increase in traffic that results in an LOS exceeding the City's LOS standards.

EXISTING ROADWAY SYSTEM

The project includes areas located along Alessandro Boulevard and near the Perris Boulevard/Iris Avenue. Major regional traffic is served by Interstate 215 (I-215) to the west, and State Route 60 (SR-60) to the north. Access to I-215 in the project vicinity is provided via interchanges at Alessandro Boulevard and Cactus Boulevard. Access to SR-60 in the project vicinity is provided via interchanges at Day Street, Frederik Street, Heacock Street, Perris Boulevard, Nason Street, and Moreno Beach Drive.

Alessandro Boulevard is an east-west roadway connecting the Moreno Valley area to the I-215 Freeway. Currently, Alessandro Boulevard varies in width from a two-lane divided roadway on the east end of the study area to a six-lane divided roadway on the west boundary of the study area near the I-215 Freeway. On-street parking is prohibited along Alessandro Boulevard in the study area. The City of Moreno Valley General Plan Circulation Element classifies Alessandro Boulevard within the study area as a six lane Divided Major Arterial.

EXISTING TRAFFIC CONDITIONS

Existing Conditions Peak Hour Traffic Volumes

To determine existing operation of the study roadways, City of Moreno Valley staff provided year 2006 average daily traffic (ADT) volumes for the study roadway segments. Existing data was not available on Alessandro Boulevard between Old 215 Frontage Road and Day Street, however, this location is analyzed in the General Plan Buildout conditions scenarios.

Exhibit 6 of the *Traffic Impact Analysis* (as provided in Appendix C), illustrates the existing ADT volumes at the study roadways and Exhibit 7 illustrates existing conditions roadway segment geometry.

Existing Conditions Roadway Segment LOS

Table 4.16-4, *Existing Conditions Roadway Segment ADT & LOS*, summarizes existing conditions roadway segment ADT volumes and corresponding LOS.

As indicated in *Table 4.16-4*, the study roadway segments are operating at an acceptable LOS according to the City of Moreno Valley performance criteria with the exception of the following four study roadway segments:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

Table 4.16-4
Existing Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	Existing ADT	V/C Ratio	LOS
1. Alessandro Boulevard btwn Old 215 Frontage Road & Day Street	6D	56,300	D	N/A	N/A	N/A
2. Alessandro Boulevard btwn Day Street & Elsworth Street	5D	46,875	D	35,600	0.76	C
3. Alessandro Boulevard btwn Elsworth Street & Frederick Street	6D	56,300	D	31,300	0.56	A
4. Alessandro Boulevard btwn Frederick Street Graham Street	5D	46,875	D	39,000	0.83	D
5. Alessandro Boulevard btwn Graham Street & Heacock Street	5D	46,875	D	34,500	0.74	C
6. Alessandro Boulevard btwn Heacock Street & Indian Street	6D	56,300	D	30,000	0.53	A
7. Alessandro Boulevard btwn Indian Street & Perris Street	6D	56,300	D	23,000	0.41	A
8. Alessandro Boulevard btwn Perris Street & Kitching Street	4D	37,500	D	18,100	0.48	A
9. Alessandro Boulevard btwn Kitching Street & Lasselle Street	2D	12,500	D	16,600	**1.33**	**F**
10. Alessandro Boulevard btwn Lasselle Street & Morrison Street	2D	12,500	D	8,000	0.64	B
11. Alessandro Boulevard btwn Morrison Street & Nason Street	2D	12,500	D	8,400	0.67	B
12. Alessandro Boulevard btwn Nason Street & Oliver Street	2D	12,500	C	8,800	0.70	B
13. Alessandro Boulevard btwn Oliver Street & Moreno Beach Drive	2D	12,500	C	10,200	**0.82**	**D**
14. Alessandro Boulevard btwn Moreno Beach Drive & Quincy Street	2D	12,500	C	7,150	0.57	A
15. Cactus Avenue w/o Perris Street	4D	37,500	C	18,000	0.48	A
16. Cactus Avenue e/o Perris Street	4D	37,500	C	20,200	0.54	A
17. Day Street n/o Alessandro Boulevard	2D	12,500	D	8,600	0.69	B
18. Frederick Street n/o Alessandro Boulevard	4D	37,500	C	17,200	0.46	A
19. Frederick Street s/o Alessandro Boulevard	4D	37,500	D	8,500	0.23	A
20. Heacock Street n/o Alessandro Boulevard	4D	37,500	D	18,500	0.49	A
21. Heacock Street s/o Alessandro Boulevard	4D	37,500	D	16,000	0.43	A
22. Perris Street n/o Alessandro Boulevard	4D	37,500	D	27,300	0.73	C
23. Perris Street s/o Alessandro Boulevard	4D	37,500	D	24,800	0.66	B
24. Perris Street n/o Cactus Avenue	4D	37,500	D	24,800	0.66	B
25. Perris Street s/o Cactus Avenue	4D	37,500	D	23,600	0.63	B
26. Perris Street s/o Iris Avenue	6D	56,300	D	25,900	0.46	A
27. Lasselle Street n/o Alessandro Boulevard	2D	12,500	D	10,100	0.81	D
28. Lasselle Street s/o Alessandro Boulevard	4D	37,500	D	12,100	0.32	A
29. Morrison Street n/o Alessandro Boulevard	4D	37,500	C	1,200	0.03	A
30. Morrison Street s/o Alessandro Boulevard (future)	--	--	D	N/A	N/A	N/A
31. Nason Street n/o Alessandro Boulevard	2D	12,500	C	9,000	0.72	C
32. Nason Street s/o Alessandro Boulevard	4D	37,500	D	10,600	0.28	A
33. Moreno Beach Drive n/o Alessandro Boulevard	2D	12,500	D	14,900	**1.19**	**F**
34. Moreno Beach Drive s/o Alessandro Boulevard	2D	12,500	D	14,000	**1.12**	**F**

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact With Mitigation Incorporated. The proposed project is creating mixed-use overlay districts to implement the Vision Plan for the Alessandro Boulevard Corridor and increasing the maximum permitted density in specified areas of the City to implement the Housing Element. Implementation of the proposed project would allow for the net reduction of 46 single-family residential units and 31,786 square feet of office uses and a net increase of 7,160 multi-family dwelling units and 171,501 square feet of commercial uses within specific areas of the City.

Project Trip Generation

To calculate trips forecast to be generated by the proposed land use, Institute of Transportation Engineers (ITE) trip generation rates were utilized. *Table 4.16-5*, *ITE Trip Rates for Displaced and Proposed Project Site Uses*, summarizes the ITE trip generation rates used to calculate the number of trips forecast to be generated by uses proposed and displaced by the proposed project.

Table 4.16-5
ITE Trip Rates for Displaced and Proposed Project Site Uses

Land Use (*ITE* Code)	Units	AM Peak Hour			PM Peak Hour			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Single-Family Detached Housing (210)	Du	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Apartment (220)	Du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Residential Townhouse (230)	Du	0.07	0.37	0.44	0.35	0.17	0.52	5.81
General Office (710)	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
Shopping Center (820)	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
Source: *2008 ITE Trip Generation Manual, 8th Edition.*								
Note: tsf = thousand square feet. du = dwelling unit.								

Table 4.16-6, *Forecast Trip Generation of Proposed Project*, summarizes the net trips forecast to be generated by the proposed project when accounting for proposed and displaced land uses.

As indicated in *Table 4.16-6*, when accounting for proposed and displaced land uses, the proposed project is forecast to generate approximately 45,915 net new daily trips, which includes 3,660 net new AM peak hour trips and 4,154 net new PM peak hour trips. Project trip distribution and assignment are provided in Appendix C.

Forecast Existing With Project Conditions

Forecast Existing With Project Conditions Traffic Volumes

Forecast existing with project conditions traffic volumes were derived by adding trips forecast to be generated by the proposed project to existing conditions traffic volumes. Exhibit 8 of the *Traffic Impact Analysis* (as provided in Appendix C) shows forecast existing with project conditions ADT volumes at the study roadways.

Table 4.16-6
Forecast Trip Generation of Proposed Project

Location	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Node 1							
- 15 Single Family Dwelling Units	-3	-8	-11	-10	-6	-16	-144
- 177.881-tsf Shopping Center/Retail	-109	-69	-178	-326	-338	-664	-7,638
ITE 34% PM Pass-by Discount for Retail	0	0	0	111	115	226	226
542 Apartment Dwelling Units	54	222	276	217	119	336	3,604
136 Townhouse Dwelling Units	10	50	60	48	23	71	790
Node 1 Subtotal	**-48**	**195**	**147**	**40**	**-87**	**-47**	**-3,162**
Node 2							
575 Apartment Dwelling Units [1]	58	236	294	214	118	332	3,518
144 Townhouse Dwelling Units [1]	10	53	63	46	22	68	770
14.32-tsf General Office [1]	19	3	22	4	17	21	145
57.283-tsf Shopping Center/Retail [1]	35	22	57	98	101	199	2,263
ITE 34% PM Pass-by Discount for Retail	0	0	0	-33	-34	-67	-67
Node 2 Subtotal	**122**	**314**	**436**	**329**	**224**	**553**	**6,629**
Node 3							
- 70.677-tsf Shopping Center/Retail	-43	-28	-71	-129	-134	-263	-3,035
ITE 34% PM Pass-by Discount for Retail	0	0	0	44	46	89	89
377 Apartment Dwelling Units	38	155	193	151	83	234	2,507
94 Townhouse Dwelling Units	7	35	42	33	16	49	546
Node 3 Subtotal	**2**	**162**	**164**	**99**	**11**	**109**	**107**
Node 4							
- 273.757-tsf Shopping Center/Retail	-167	-107	-274	-501	-520	-1021	-11,755
ITE 34% PM Pass-by Discount for Retail	0	0	0	170	177	347	347
697 Apartment Dwelling Units	70	286	356	279	153	432	4,635
174 Townhouse Dwelling Units	12	64	76	61	30	91	1,011
Node 4 Subtotal	**-85**	**243**	**158**	**9**	**-160**	**-151**	**-5,762**
Node 5							
390 Apartment Dwelling Units [2]	39	160	199	136	75	211	2,283
97 Townhouse Dwelling Units [2]	7	36	43	30	14	44	496
24.350-tsf General Office [2]	33	5	38	5	26	31	236
97.400-tsf Shopping Center/Retail [2]	59	38	97	155	161	316	3,680
ITE 34% PM Pass-by Discount for Retail	0	0	0	-53	-55	-108	-108
Node 5 Subtotal	**138**	**239**	**377**	**273**	**221**	**494**	**6,587**
Node 6							
- 21 Single Family Dwelling Units	-4	-12	-16	-13	-8	-21	-201
- 31.786-tsf General Office	-43	-6	-49	-8	-39	-47	-350
2417 Apartment Dwelling Units [3]	242	991	1,233	899	495	1,394	14,948
604 Townhouse Dwelling Units [3]	42	223	265	196	96	292	3,263
263.712-tsf Shopping Center/Retail [3]	161	103	264	449	466	915	10,531
ITE 34% PM Pass-by Discount for Retail	0	0	0	-153	-158	-311	-311
Node 6 Subtotal	**398**	**1,299**	**1,697**	**1,370**	**852**	**2,222**	**27,880**

Table 4.16-6 [continued]
Forecast Trip Generation of Proposed Project

Location	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Calculation Area 4							
- 10 Single Family Dwelling Units	-2	-6	-8	-6	-4	-10	-96
730 Apartment Dwelling Units [4]	73	299	372	254	140	394	4,224
183 Townhouse Dwelling Units [4]	13	68	81	56	27	83	925
236.750- tsf Shopping Center [4]	144	92	236	377	391	768	8,844
ITE 34% PM Pass-by Discount for Retail	0	0	0	-128	-133	-261	-261
Calculation Area 4 Subtotal	**228**	**453**	**681**	**553**	**421**	**974**	**13,636**
Proposed Project Total Forecast Net Trip Generation	**755**	**2,905**	**3,660**	**2,673**	**1,482**	**4,154**	**45,915**

Notes: tsf = thousand square feet.
1- Assumes the following internal trip capture reduction as calculated per ITE guidelines: 7% Reduction in p.m. peak hour trips, and 8% reduction in daily trips.
2 - Assumes the following internal trip capture reduction as calculated per ITE guidelines: 13% Reduction in p.m. peak hour trips, and 12% reduction in daily trips.
3 - Assumes the following internal trip capture reduction as calculated per ITE guidelines: 7% Reduction in p.m. peak hour trips, and 7% reduction in daily trips.
4 - Assumes the following internal trip capture reduction as calculated per ITE guidelines: 13% Reduction in p.m. peak hour trips, and 13% reduction in daily trips.

Forecast Existing With Project Conditions Roadway Segment LOS

Table 4.16-7, *Forecast Existing With Project Conditions Roadway Segment ADT & LOS*, summarizes forecast existing with project conditions roadway segment ADT volumes and corresponding LOS.

As indicated in *Table 4.16-7*, with the addition of project-generated trips, the following seven roadway segments are forecast to operate at a deficient LOS according to the City of Moreno Valley performance criteria for forecast existing with project conditions:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Lasselle Street and Morrison Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Perris Street south of Cactus Avenue
- Lasselle Street north of Alessandro Boulevard;
- Nason Street north of Alessandro Boulevard;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

Table 4.16-7
Forecast Existing With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	Existing With Project ADT	V/C Ratio	LOS
1. Alessandro Boulevard btwn Old 215 Frontage Road & Day Street	6D	56,300	D	N/A	N/A	N/A
2. Alessandro Boulevard btwn Day Street & Elsworth Street	5D	46,875	D	37,744	0.81	D
3. Alessandro Boulevard btwn Elsworth Street & Frederick Street	6D	56,300	D	34,886	0.62	B
4. Alessandro Boulevard btwn Frederick Street Graham Street	5D	46,875	D	40,930	0.87	D
5. Alessandro Boulevard btwn Graham Street & Heacock Street	5D	46,875	D	36,430	0.78	C
6. Alessandro Boulevard btwn Heacock Street & Indian Street	6D	56,300	D	31,892	0.57	A
7. Alessandro Boulevard btwn Indian Street & Perris Street	6D	56,300	D	24,892	0.44	A
8. Alessandro Boulevard btwn Perris Street & Kitching Street	4D	37,500	D	23,296	0.62	B
9. Alessandro Boulevard btwn Kitching Street & Lasselle Street	2D	12,500	D	21,796	**1.74**	**F**
10. Alessandro Boulevard btwn Lasselle Street & Morrison Street	2D	12,500	D	14,112	**1.13**	**F**
11. Alessandro Boulevard btwn Morrison Street & Nason Street	2D	12,500	D	9,786	0.78	C
12. Alessandro Boulevard btwn Nason Street & Oliver Street	2D	12,500	C	8,974	0.72	C
13. Alessandro Boulevard btwn Oliver Street & Moreno Beach Drive	2D	12,500	C	10,374	**0.83**	**D**
14. Alessandro Boulevard btwn Moreno Beach Drive & Quincy Street	2D	12,500	C	8,006	0.64	B
15. Cactus Avenue w/o Perris Street	4D	37,500	C	22,844	0.61	B
16. Cactus Avenue e/o Perris Street	4D	37,500	C	21,742	0.58	A
17. Day Street n/o Alessandro Boulevard	2D	12,500	D	8,412	0.67	B
18. Frederick Street n/o Alessandro Boulevard	4D	37,500	C	20,846	0.56	A
19. Frederick Street s/o Alessandro Boulevard	4D	37,500	D	9,164	0.24	A
20. Heacock Street n/o Alessandro Boulevard	4D	37,500	D	18,560	0.49	A
21. Heacock Street s/o Alessandro Boulevard	4D	37,500	D	16,010	0.43	A
22. Perris Street n/o Alessandro Boulevard	4D	37,500	D	31,526	0.84	D
23. Perris Street s/o Alessandro Boulevard	4D	37,500	D	32,328	0.86	D
24. Perris Street n/o Cactus Avenue	4D	37,500	D	32,328	0.86	D
25. Perris Street s/o Cactus Avenue	4D	37,500	D	34,644	**0.92**	**E**
26. Perris Street s/o Iris Avenue	6D	56,300	D	29,450	0.52	A
27. Lasselle Street n/o Alessandro Boulevard	2D	12,500	D	14,712	**1.18**	**F**
28. Lasselle Street s/o Alessandro Boulevard	4D	37,500	D	14,992	0.40	A
29. Morrison Street n/o Alessandro Boulevard	4D	37,500	C	12,226	0.33	A
30. Morrison Street s/o Alessandro Boulevard (future)	--	--	D	N/A	N/A	N/A
31. Nason Street n/o Alessandro Boulevard	2D	12,500	C	17,490	**1.40**	**F**
32. Nason Street s/o Alessandro Boulevard	4D	37,500	D	13,026	0.35	A
33. Moreno Beach Drive n/o Alessandro Boulevard	2D	12,500	D	14,900	**1.19**	**F**
34. Moreno Beach Drive s/o Alessandro Boulevard	2D	12,500	D	14,682	**1.17**	**F**

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

Forecast Existing With Project Conditions Recommended Improvements

The following improvements have been identified to fully reduce the forecast traffic impacts to a less than significant level at the deficient study roadway segments for forecast existing with project conditions:

- Alessandro Boulevard between Kitching Street and Lasselle Street – Widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

- Alessandro Boulevard between Lasselle Street and Morrison Street – Widen/restripe Alessandro Boulevard between Lasselle Street and Morrison Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

- Alessandro Boulevard between Oliver Street and Moreno Beach Drive – Widen/restripe Alessandro Boulevard between Oliver Street and Moreno Beach Drive from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

- Perris Street south of Cactus Avenue – Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Perris Street south of Cactus Avenue from a four-lane divided roadway to a six-lane Divided Major Arterial.

- Lasselle Street north of Alessandro Boulevard – Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Lasselle Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial.

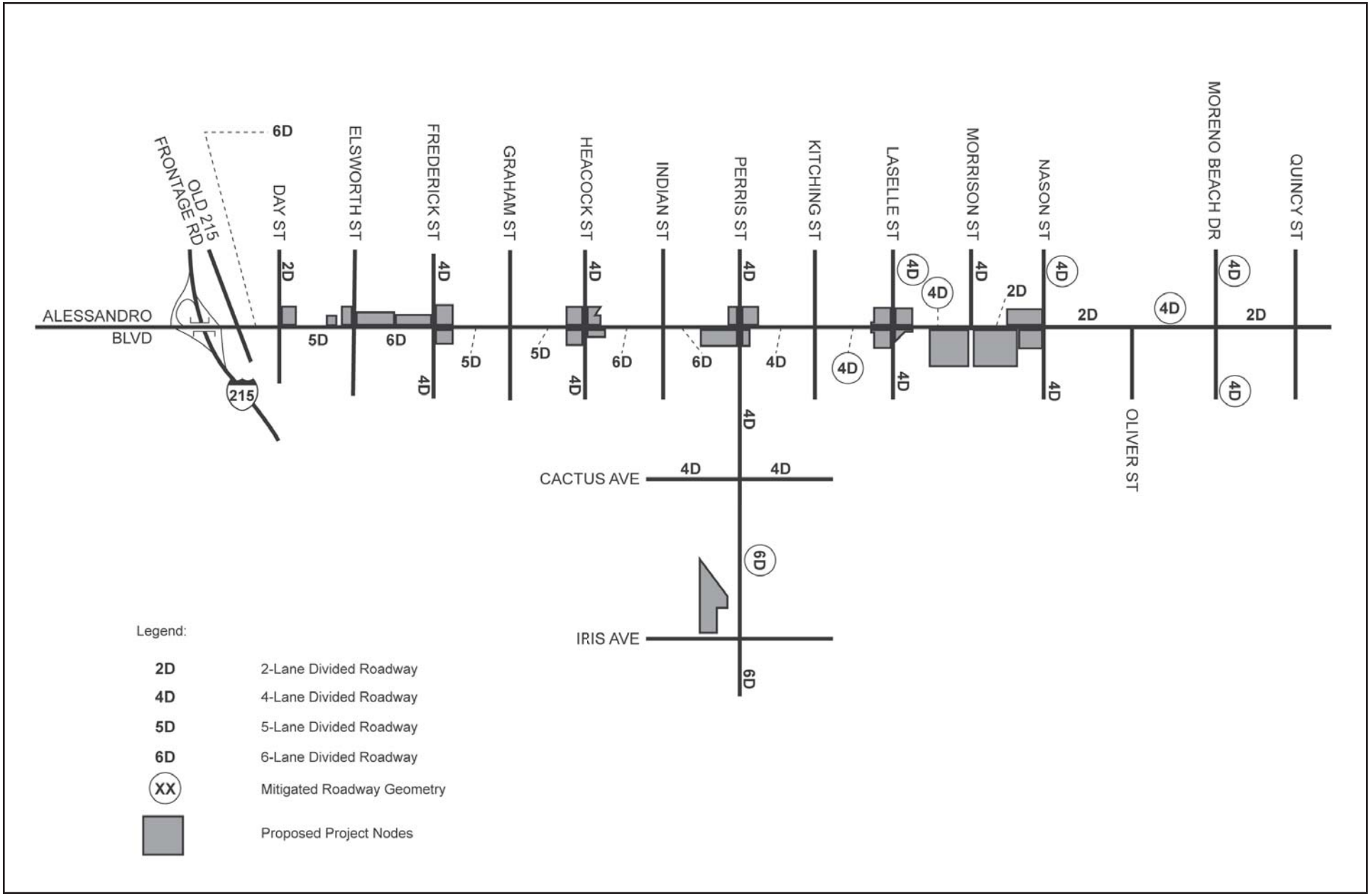
- Nason Street north of Alessandro Boulevard – Widen/restripe Nason Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Modified Divided Major Arterial in the City of Moreno Valley General Plan Circulation Element.

- Moreno Beach Drive north of Alessandro Boulevard – Widen/restripe Moreno Beach drive north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

- Moreno Beach Drive south of Alessandro Boulevard – Widen/restripe Moreno Beach drive south of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Exhibit 4.16-2, *Mitigated Forecast Existing With Project Conditions Roadway Segment Geometry*, illustrates the mitigated forecast existing with project conditions roadway segment geometry assuming implementation of the recommended improvements.

Table 4.16-8, *Mitigated Forecast Existing With Project Conditions Roadway Segment ADT & LOS*, summarizes mitigated forecast existing with project conditions roadway segment ADT volumes and corresponding LOS at affected locations assuming implementation of the roadway segment recommended improvements.



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Mitigated Forecast Existing With Project Conditions Roadway Segment Geometry

Exhibit 4.16-2

Table 4.16-8
Mitigated Forecast Existing With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Mitigated Roadway Geometry	Mitigated LOS E Capacity	Acceptable LOS	Existing With Project ADT	V/C Ratio	LOS
9. Alessandro Boulevard btwn Kitching Street & Lasselle Street	4D	37,500	D	21,796	0.58	A
10. Alessandro Boulevard btwn Lasselle Street & Morrison Street	4D	37,500	D	14,112	0.38	A
13. Alessandro Boulevard btwn Oliver Street & Moreno Beach Drive	4D	37,500	C	10,374	0.28	A
25. Perris Street s/o Cactus Avenue	6D	56,300	D	34,644	0.62	B
27. Lasselle Street n/o Alessandro Boulevard	4D	37,500	D	14,712	0.39	A
31. Nason Street n/o Alessandro Boulevard	4D	37,500	C	17,490	0.47	A
33. Moreno Beach Drive n/o Alessandro Boulevard	4D	37,500	D	14,900	0.40	A
34. Moreno Beach Drive s/o Alessandro Boulevard	4D	37,500	D	14,682	0.39	A

Notes: n/o = north of; s/o = south of; btwn = between; Deficient operation shown in **bold.**

As indicated in *Table 4.16-8*, assuming implementation of the recommended roadway segment improvements, the study roadway segments are forecast to operate at an acceptable LOS according to the City of Moreno Valley performance criteria for mitigated forecast existing with project conditions.

Forecast General Plan Buildout Without Project Conditions

Forecast General Plan Buildout Without Project Conditions Peak Hour Traffic Volumes

To determine forecast General Plan Buildout conditions operation of the study roadways, City of Moreno Valley staff provided General Plan Buildout average daily traffic (ADT) volumes for the study roadway segments. Exhibit 10 of the *Traffic Impact Analysis* (as provided in Appendix C) shows forecast General Plan Buildout without project conditions ADT volumes at the study roadways.

The analysis assumes implementation of the General Plan Circulation Element roadway designations identified below:

- Improvement of Day Street north and south of Alessandro Boulevard from a two-lane Industrial Collector to a four-lane Divided Arterial;
- Improvement of Perris Street north and south of Alessandro Boulevard from a four-lane Divided Arterial to a six-lane Divided Major Arterial;
- Improvement of Perris Street north and south of Cactus Avenue from a four-lane Divided Arterial to a six-lane Divided Major Arterial;
- Improvement of Lasselle Street north of Alessandro Boulevard from a two-lane Industrial Collector to a four-lane Divided Arterial;
- Construction of Morrison Street south of Alessandro Boulevard as a four-lane divided Arterial;
- Improvement of Nason Street north of Alessandro Boulevard from a two-lane Industrial Collector to a six-lane Modified Divided Major Arterial;
- Improvement of Nason Street south of Alessandro Boulevard from a four-lane Divided Arterial to a six-lane Modified Divided Major Arterial;
- Improvement of Moreno Beach Drive north and south of Alessandro Boulevard from a two-lane Industrial Collector to a six-lane Divided Major Arterial;

- Improvement of Alessandro Boulevard between I-215 and Old 215 Frontage Road from a four-lane Divided Arterial to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Day Street and Elsworth Street from a five-lane divided roadway to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Frederick Street and Heacock Street from a five-lane divided roadway to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Perris Street and Kitching Street from a four-lane Divided Arterial to a six-lane Divided Major Arterial; and
- Improvement of Alessandro Boulevard Kitching Street and Quincy Street from a two-lane Industrial Collector to a six-lane Divided Major Arterial.

Exhibit 11 of the *Traffic Impact Analysis* (as provided in Appendix C) shows forecast General Plan Buildout without project conditions roadway segment geometry.

Forecast General Plan Buildout Without Project Conditions Roadway Segment LOS

Table 4.16-9, *Forecast General Plan Buildout Without Project Conditions Roadway Segment ADT & LOS*, summarizes forecast General Plan buildout without project conditions roadway segment ADT volumes and corresponding LOS.

As indicated in *Table 4.16-9*, the following three roadway segments are forecast to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan buildout without project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

Forecast General Plan Buildout With Project Conditions

Forecast* General Plan Buildout *With Project Conditions Traffic Volumes

Forecast General Plan buildout with project conditions traffic volumes were derived by adding trips forecast to be generated by the proposed project to forecast General Plan buildout without project conditions traffic volumes. Exhibit 12 of the *Traffic Impact Analysis* (as provided in Appendix C) shows forecast General Plan Buildout with project conditions ADT volumes at the study roadways.

Forecast* General Plan Buildout *With Project Conditions Roadway Segment LOS

Table 4.16-10, *Forecast General Plan Buildout With Project Conditions Roadway Segment ADT & LOS*, summarizes forecast General Plan buildout with project conditions roadway segment ADT volumes and corresponding LOS.

As indicated in *Table 4.16-10*, with the addition of project-generated trips, the following three roadway segments are forecast to continue to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan buildout with project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

Table 4.16-9
Forecast General Plan Buildout Without Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	GP Without Project ADT	V/C Ratio	LOS
1. Alessandro Boulevard btwn Old 215 Frontage Road & Day Street	6D	56,300	D	52,800	**0.94**	**E**
2. Alessandro Boulevard btwn Day Street & Elsworth Street	6D	56,300	D	48,000	0.85	D
3. Alessandro Boulevard btwn Elsworth Street & Frederick Street	6D	56,300	D	46,900	0.83	D
4. Alessandro Boulevard btwn Frederick Street Graham Street	6D	56,300	D	48,900	0.87	D
5. Alessandro Boulevard btwn Graham Street & Heacock Street	6D	56,300	D	40,100	0.71	C
6. Alessandro Boulevard btwn Heacock Street & Indian Street	6D	56,300	D	26,200	0.47	A
7. Alessandro Boulevard btwn Indian Street & Perris Street	6D	56,300	D	31,100	0.55	A
8. Alessandro Boulevard btwn Perris Street & Kitching Street	6D	56,300	D	30,300	0.54	A
9. Alessandro Boulevard btwn Kitching Street & Lasselle Street	6D	56,300	D	25,300	0.45	A
10. Alessandro Boulevard btwn Lasselle Street & Morrison Street	6D	56,300	D	17,700	0.31	A
11. Alessandro Boulevard btwn Morrison Street & Nason Street	6D	56,300	D	16,600	0.29	A
12. Alessandro Boulevard btwn Nason Street & Oliver Street	6D	56,300	C	20,200	0.36	A
13. Alessandro Boulevard btwn Oliver Street & Moreno Beach Drive	6D	56,300	C	21,600	0.38	A
14. Alessandro Boulevard btwn Moreno Beach Drive & Quincy Street	6D	56,300	C	17,900	0.32	A
15. Cactus Avenue w/o Perris Street	4D	37,500	C	23,200	0.62	B
16. Cactus Avenue e/o Perris Street	4D	37,500	C	26,700	0.71	C
17. Day Street n/o Alessandro Boulevard	4D	37,500	D	29,700	0.79	C
18. Frederick Street n/o Alessandro Boulevard	4D	37,500	C	15,300	0.41	A
19. Frederick Street s/o Alessandro Boulevard	4D	37,500	D	4,300	0.11	A
20. Heacock Street n/o Alessandro Boulevard	4D	37,500	D	35,900	**0.96**	**E**
21. Heacock Street s/o Alessandro Boulevard	4D	37,500	D	35,000	**0.93**	**E**
22. Perris Street n/o Alessandro Boulevard	6D	56,300	D	30,700	0.55	A
23. Perris Street s/o Alessandro Boulevard	6D	56,300	D	30,900	0.55	A
24. Perris Street n/o Cactus Avenue	6D	56,300	D	30,900	0.55	A
25. Perris Street s/o Cactus Avenue	6D	56,300	D	29,700	0.53	A
26. Perris Street s/o Iris Avenue	6D	56,300	D	31,300	0.56	A
27. Lasselle Street n/o Alessandro Boulevard	4D	37,500	D	19,000	0.51	A
28. Lasselle Street s/o Alessandro Boulevard	4D	37,500	D	11,700	0.31	A
29. Morrison Street n/o Alessandro Boulevard	4D	37,500	C	17,200	0.46	A
30. Morrison Street s/o Alessandro Boulevard (future)	4D	37,500	D	23,400	0.62	B
31. Nason Street n/o Alessandro Boulevard	6D	56,300	C	32,700	0.58	A
32. Nason Street s/o Alessandro Boulevard	6D	56,300	D	28,900	0.51	A
33. Moreno Beach Drive n/o Alessandro Boulevard	6D	56,300	D	19,800	0.35	A
34. Moreno Beach Drive s/o Alessandro Boulevard	6D	56,300	D	20,600	0.37	A

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

Table 4.16-10
Forecast General Plan Buildout With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	GP With Project ADT	V/C Ratio	LOS
1. Alessandro Boulevard btwn Old 215 Frontage Road & Day Street	6D	56,300	D	54,332	**0.97**	**E**[1]
2. Alessandro Boulevard btwn Day Street & Elsworth Street	6D	56,300	D	50,144	0.89	D
3. Alessandro Boulevard btwn Elsworth Street & Frederick Street	6D	56,300	D	50,486	0.90	D
4. Alessandro Boulevard btwn Frederick Street Graham Street	6D	56,300	D	50,830	0.90	D
5. Alessandro Boulevard btwn Graham Street & Heacock Street	6D	56,300	D	42,030	0.75	C
6. Alessandro Boulevard btwn Heacock Street & Indian Street	6D	56,300	D	28,092	0.50	A
7. Alessandro Boulevard btwn Indian Street & Perris Street	6D	56,300	D	32,992	0.59	A
8. Alessandro Boulevard btwn Perris Street & Kitching Street	6D	56,300	D	33,920	0.60	A
9. Alessandro Boulevard btwn Kitching Street & Lasselle Street	6D	56,300	D	28,920	0.51	A
10. Alessandro Boulevard btwn Lasselle Street & Morrison Street	6D	56,300	D	20,662	0.37	A
11. Alessandro Boulevard btwn Morrison Street & Nason Street	6D	56,300	D	17,986	0.32	A
12. Alessandro Boulevard btwn Nason Street & Oliver Street	6D	56,300	C	20,374	0.36	A
13. Alessandro Boulevard btwn Oliver Street & Moreno Beach Drive	6D	56,300	C	21,774	0.39	A
14. Alessandro Boulevard btwn Moreno Beach Drive & Quincy Street	6D	56,300	C	18,756	0.33	A
15. Cactus Avenue w/o Perris Street	4D	37,500	C	28,044	0.75	C
16. Cactus Avenue e/o Perris Street	4D	37,500	C	29,818	0.80	C
17. Day Street n/o Alessandro Boulevard	4D	37,500	D	29,512	0.79	C
18. Frederick Street n/o Alessandro Boulevard	4D	37,500	C	18,946	0.51	A
19. Frederick Street s/o Alessandro Boulevard	4D	37,500	D	4,964	0.13	A
20. Heacock Street n/o Alessandro Boulevard	4D	37,500	D	35,960	**0.96**	**E**[1]
21. Heacock Street s/o Alessandro Boulevard	4D	37,500	D	35,010	**0.93**	**E**[1]
22. Perris Street n/o Alessandro Boulevard	6D	56,300	D	34,926	0.62	B
23. Perris Street s/o Alessandro Boulevard	6D	56,300	D	36,854	0.65	B
24. Perris Street n/o Cactus Avenue	6D	56,300	D	36,854	0.65	B
25. Perris Street s/o Cactus Avenue	6D	56,300	D	40,744	0.72	C
26. Perris Street s/o Iris Avenue	6D	56,300	D	34,850	0.62	B
27. Lasselle Street n/o Alessandro Boulevard	4D	37,500	D	23,612	0.63	B
28. Lasselle Street s/o Alessandro Boulevard	4D	37,500	D	13,018	0.35	A
29. Morrison Street n/o Alessandro Boulevard	4D	37,500	C	28,226	0.75	C
30. Morrison Street s/o Alessandro Boulevard (future)	4D	37,500	D	26,550	0.71	C
31. Nason Street n/o Alessandro Boulevard	6D	56,300	C	41,190	0.73	C
32. Nason Street s/o Alessandro Boulevard	6D	56,300	D	31,326	0.56	A
33. Moreno Beach Drive n/o Alessandro Boulevard	6D	56,300	D	19,800	0.35	A
34. Moreno Beach Drive s/o Alessandro Boulevard	6D	56,300	D	21,282	0.38	A

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.
1- Roadway segment was identified to be at an unacceptable level of service in the General Plan and General Plan EIR. The City adopted a Statement of Overriding Considerations for the significant unavoidable impacts on these roadway segments.

The three deficient roadway segments identified above were identified as significant unavoidable impacts in the *General Plan EIR* and a Statement of Overriding Considerations were adopted. The proposed project does not generate any new or greater impacts beyond those already analyzed in the *General Plan EIR*, nor does the proposed project generate any impacts that exceed significance threshold criteria.

Forecast General Plan Buildout With Project Conditions Recommended Measures

Mitigation Measures TR-9 and TR-10 have been identified to ensure that the forecast traffic impacts at the deficient roadway segments remain at or below the LOS shown in the operations table for forecast General Plan buildout with project conditions.

Since implementation of the measures identified above would reduce project-related impacts, and since no new significant unavoidable impacts beyond those identified in the *General Plan EIR* would occur, no additional measures are required. Impacts would be less than significant in this regard.

Mitigation Measures:

The County of Riverside requires transportation and general infrastructure fees paid at the time a certificate of occupancy is issued for a project or upon final inspection, whichever comes first. As applicable for each future development project, the City shall clarify the need for payment towards the Riverside County Transportation Uniform Mitigation Fee (TUMF) Program (per Ordinance Number 824) and/or towards other applicable fee programs such as the City Development Impact Fee Program (DIF). The City DIF addresses local transportation improvements such as arterial streets, traffic signals, and interchange improvements, while TUMF fees are set by the Western Riverside Council of Governments and address regional transportation improvements.

TR-1 Alessandro Boulevard between Kitching Street and Lasselle Street – Future projects shall make a proportionate contribution to widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-2 Alessandro Boulevard between Lasselle Street and Morrison Street – Future projects shall make a proportionate contribution to widen/restripe Alessandro Boulevard between Lasselle Street and Morrison Street from a two-lane divided roadway to a four -lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-3 Alessandro Boulevard between Oliver Street and Moreno Beach Drive – Future projects shall make a proportionate contribution to widen/restripe Alessandro Boulevard between Oliver Street and Moreno Beach Drive from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-4 Perris Street south of Cactus Avenue – Consistent with the City of Moreno Valley General Plan Circulation Element, future projects shall make a proportionate contribution to widen/restripe Perris Street south of Cactus Avenue from a four-lane divided roadway to a six-lane Divided Major Arterial.

TR-5 Lasselle Street north of Alessandro Boulevard – Consistent with the City of Moreno Valley General Plan Circulation Element, future projects shall make a proportionate contribution to widen/restripe Lasselle Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial.

TR-6 Nason Street north of Alessandro Boulevard – Future projects shall make a proportionate contribution to widen/restripe Nason Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Modified Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-7 Moreno Beach Drive north of Alessandro Boulevard – Future projects shall make a proportionate contribution to widen/restripe Moreno Beach drive north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-8 Moreno Beach Drive south of Alessandro Boulevard – Future projects shall make a proportionate contribution to widen/restripe Moreno Beach drive south of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

TR-9 Implement Project-Specific Transportation Demand Management Program – As development occurs within the Traffic Impact Analysis study area, project applicants shall demonstrate, subject to the City's approval, implementation of transportation demand management (TDM) measures to reduce daily and peak hour traffic generation by a minimum of ten percent. TDM measures may include but are not limited to financial contribution to creation and operation of a local shuttle to link land uses with park-and-ride lots and transit facilities (regional bus stations, Metrolink or other Transportation Center, etc.), ridesharing, bike/transit integration, cycling improvements, improved bike/pedestrian facilities, increased park-and-ride, telework, and alternative work schedules, etc.

TR-10 Arterial Segment Analysis – Individual development projects within the Traffic Impact Analysis study area shall conduct studies of specific arterial segments, as identified by the City, in order to determine if any additional improvements would be needed to maintain an acceptable LOS at General Plan Buildout. Generally, these segments would be studied as new developments are proposed in their vicinity. Measures shall be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments shall identify measures to maintain an acceptable LOS at General Plan Buildout for at least one of the reasons discussed below:

(a) Segments would need improvement, but their ultimate volumes slightly exceed design capabilities.
(b) Segments would need improvements but require inter-jurisdictional coordination.
(c) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations. (Source: General Plan EIR, Mitigation Measure TR-1).

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. The Congestion Management Program (CMP) was established in 1990 under Proposition 111. The intent of the CMP is to more directly link land use, transportation, and air quality thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) for Riverside County, and holds responsibility for the development and implementation of the Riverside County CMP. The CMP identifies a network of roadways that serve as regional linkages between Riverside County cities and adjacent counties. Local agencies are required to monitor how new development projects will impact the CMP network. Should a new development project cause a location on the CMP network to fall below a Level of Service (LOS) F, the local agency must prepare a deficiency plan that would outline specific mitigation measures and a schedule for mitigating the deficiency.

Since the City LOS standard is LOS C or LOS D, and is higher than the designated CMP standards for Riverside County, the City LOS standards would govern, and therefore, no CMP impacts are forecast to occur.

Mitigation Measures: No mitigation measures are required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. Implementation of the proposed project would not significantly increase the number of people using the airport facilities at March Air Reserve Base, resulting in a change in air traffic patterns or increase in traffic levels. Further, the proposed project would not result in the construction of incompatible development within the airport influence area. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. Future development associated with implementation of the proposed project would increase traffic volumes, potentially requiring circulation infrastructure improvements. All traffic improvements would be constructed according to the City's roadway safety standards. Therefore, transportation/traffic hazards due to a design feature or incompatible uses would not substantially increase. Furthermore, due to the conceptual nature of the future development, proposals would require individual assessments of potential impacts relative to traffic and circulation, including an evaluation of potential traffic hazards. If necessary, mitigation would be required to reduce potential traffic hazards to a less than significant level.

Mitigation Measures: No mitigation measures are required.

e) Result in inadequate emergency access?

Less Than Significant Impact. Future development site plans would be required to satisfy the City's traffic and safety regulations that address emergency access. Due to the conceptual nature of the future development, proposals would require individual assessments of potential impacts to traffic patterns, including an evaluation of emergency access routes. If necessary, mitigation would be required to reduce potential impacts to a less than significant level.

Mitigation Measures: No mitigation measures are required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact.

Bicycle Network

The Moreno Valley Bikeway Plan consists of Class I, Class II and Class III routes. Class I bikeways are dedicated trails, separated from vehicular traffic. Class II are designated, striped bikeways generally located along the right shoulder of the roadway. Class III routes are designated bikeways, not striped, and are shared with vehicles. These bikeways provide the opportunity for an alternative mode of transportation for both recreational and commuting uses.

There are currently no bike lanes on Alessandro Boulevard or adjacent to any of the sites within the project area.[1] Iris Avenue, east of Perris Boulevard and Housing Element Calculation 4 Area, is a Class II bike lane. General Plan

[1] City of Moreno Valley, *City of Moreno Valley Existing Bikeways*, August 2008.

Figure 9-4, Bikeway Plan, identifies the following future bikeways within and adjacent to the sites within the project area:

- Iris Avenue, between Indian Street and Perris Boulevard – Class II
- Alessandro Boulevard, between Graham Street and Heacock Street – Class II
- Lasselle Street, between Eucalyptus and Iris Avenue – Class II
- Nason street, between Eucalyptus and Iris Avenue – Class I

Future development associated with the proposed project would not conflict with policies or plans regarding bicycle facilities. Individual projects would be evaluated on a project-by-project basis and reviewed to ensure compliance with the General Plan policies that address existing bicycle facilities and the provision of new bicycle facilities in accordance with the Bikeway Plan. Impacts would be less than significant in this regard.

Transit Network

Public transit in the City of Moreno Valley consists primarily of bus service. As noted in the *General Plan*, it is anticipated that Moreno Valley will also have future access to commuter rail and Bus Rapid Transit (BRT) services.

Moreno Valley is working closely with the Riverside County Transportation Commission, the Riverside Transit Agency (RTA) and other local governments to establish efficient transit connections among areas of activity and concentrated development. Fixed bus service on or crossing Alessandro Boulevard is provided via RTA routes 11, 18, 19, 20, and 35. Additionally, Amtrak Thruway service picks up on Alessandro Boulevard just west of Old 215 Frontage Road.

Currently, the RCTC owns a rail line located west of Moreno Valley, parallel to I-215. This is a service line track that carries a low volume of freight trains to and from industrial, commercial, and agricultural areas, south of Moreno Valley. As a Measure A project, RCTC intends to initiate commuter rail service on this line that would extend initially to Perris. A commuter rail station is planned for the southwest quadrant of the Alessandro Boulevard/I-215 interchange that would provide direct access for Moreno Valley residents. Funding is being collected to implement the new commuter rail service, and design plans are underway for stations along the new spur.

Implementation of the proposed project would not conflict with policies and plans regarding transit facilities and services. It is the intent of the project to accommodate intensities and patterns of development that can support multiple modes of transportation including public transit. Future development projects would be reviewed on a project-by-basis to ensure compliance with policies and plans related to transit facilities. Impacts would be less than significant in this regard.

Pedestrian Network

Sidewalks are discontinuous within the project area based on the pattern of development that has occurred. Sidewalks primarily occur adjacent to developed parcels. Most vacant/undeveloped sites do not have sidewalks. Future development within the project area would be required to provide sidewalk improvements in accordance with the City's standards as identified in the *Municipal Code*. The proposed project encourages pedestrian-oriented uses and pedestrian connections and convenient access between area neighborhoods, housing, employment centers, and retail services. Future improvements would be reviewed to ensure consistency with the *General Plan* and the vision established for the area. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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4.17 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		✓		
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g. Comply with federal, state, and local statutes and regulations related to solid waste?				✓

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The *General Plan EIR* determined that potential impacts to wastewater services and treatment would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

The City requires NPDES permits, as administered by the Santa Ana RWQCB, according to Federal regulations for both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

New development associated with implementation of the proposed project would continue to comply with all provisions of the NPDES program, as enforced by the RWQCB. Additionally, the NPDES Phase I and Phase II requirements would regulate discharge from construction sites. All future development projects would be required to comply with the wastewater discharge requirements issued by the SWRCB and Santa Ana RWQCB. Therefore, the residential and non-residential development would not result in an exceedance of wastewater treatment requirements of the RWQCB with respect to discharges to the sewer system or stormwater system within the City.

Mitigation Measures: No mitigation measures are required.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact.

Water

The City of Moreno Valley is served by two water purveyors: Eastern Municipal Water District and the Box Springs Mutual Water Company. A majority of the project area is located within the service area of the Eastern Municipal Water District. However, the parcels located north of Alessandro Boulevard, between Day Street and Elsworth Street, are served by the Box Springs Mutual Water Company.

The Eastern Municipal Water District (EMWD) has prepared and adopted its *2010 Urban Water Management Plan* (UWMP) for its service area, which includes Moreno Valley. EMWD obtains its water supply from four sources: imported water from Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater. The Riverside County Center for Demographic Research (RCCDR) 2010 Projection is used to calculate future population for use in the UWMP. RCCDR considers land use and land agency information to develop projections. The RCCDR projection has been adopted by the Western Riverside Council of Governments. The UWMP identifies population projections from 2015 to 2035.

An Initial Study/Environmental Assessment (IS/EA) for the *City of Moreno Valley Edgemont Water Master Plan Update*, September 2009, was prepared to address the potential impacts associated with the Edgemont Water Master Plan Update (EWMPU), which includes the Water Infrastructure Analysis Study (WIAS). The objective of the WIAS is to analyze the existing Box Springs Mutual Water Company (BSMWC) water system and determine the adequacy of the existing system, determine any necessary system improvements and the associated costs of the improvements to comply with the current *City of Moreno Valley General Plan* and Land Use designations (ultimate development).

According to the IS/EA, BSMWC water system facilities are hydraulically incapable of supplying the necessary fire flow demand to support existing property development conditions. Additionally, the water system is aging and deteriorated and in need of replacement and rehabilitation. In order to meet the water and fire flow demand conditions for the ultimate development associated with the City's *General Plan*, additional water supply must be acquired, and existing BSMWC water infrastructure, including storage, pipeline and pumping facilities, require improvements. Presently, the existing BSMWC water system is not up to City fire protection standards and codes. Furthermore, due to age and deterioration of the existing system, there is a potential for pipeline failure; thus, leading to a shutdown of the entire system and water would not be delivered to the public. Additionally, the BSMWC well water has nitrate levels exceeding the Maximum Contaminant Level (MCL) for drinking water standards and requires blending prior to delivery.

The Water Infrastructure Analysis Study proposed two water system alternatives based on the additional water supply and improvements to water system facilities including storage, pipeline and pumping. The primary difference in the two project alternatives is the source of the water and the need for the storage reservoir/tank and pumps.

Alternative 1

Storage – The existing BSMWC storage capacity is 0.8 million gallon (MG), provided by two 0.4 MG storage tanks. The ultimate required storage is 3.11 MG. Therefore, the construction of an additional 2.3 MG storage tank is proposed to meet ultimate water demand conditions. The proposed 2.3 MG tank will be located within the current property where BSMWC has existing tanks, booster station and pumps, north of Dracaea Avenue and east of Edgemont Street. The new tank will be located adjacent to the two existing storage tanks. The Storage Tank portion of the project will consist of construction of one new 2.3 MG aboveground reservoir, the installation of additional on-site pipeline to connect to existing water system and on0site drainage facilities including drainage and overflow

pipeline to drain to existing Riverside County Flood Control storm drain channel to provide drainage of on- and off-site stormwater, and for reservoir overflow protection.

Activities related to reservoir construction include site clearing and grading, and drainage improvements. Equipment such as valves, controls and appurtenances, and overflow drain pipeline and other drainage related erosion control features will be constructed.

Pipeline – The Water Infrastructure Analysis Study proposes approximately 10 miles of water pipeline within BSMWC. The distribution system consists of very old and undersized water mains. BSMWC has been upgrading waterlines and replacing these old and undersized pipelines, however the depth at which the lines were placed will most likely require reconstruction. The majority of the pipelines will be installed utilizing traditional trenching techniques within existing paved roads and road right-of-way(s).

Additionally, the existing 4-inch metered connection with Western Municipal Water District (WMWD) will be upsized to an 8-inch compound meter to be capable of providing the necessary flows. A proposed 12-inch diameter water pipeline will connect the proposed meter directly to the two 0.4 MG storage tanks. The booster station and hydropneumatic tank will draw water from the two 0.4 MG storage tanks and pump it to the distribution system. The discharge piping will be a 16-inch diameter water pipeline until its connection at Dracaea Avenue for a length of approximately 410 linear feet (L.F.).

Pumping - Pump stations, also known as booster stations, are facilities used to lift water conveyed in pipelines from one pressure zone to another. Pump stations are made up of piping, mechanical, and electrical components housed in an above ground pre-fabricated metal building. The buildings are typically between 20x30 to 20x40 feet in size and 10-12 feet tall. Pump stations are typically surrounded by a chain link fence or block wall. Pump station facilities may require an area of up to 150x100 feet or approximately 1/3-acre in size. The proposed pump station is located at the existing pump station site on the BSMWC tank property northeast of the intersection of Dracaea Avenue and Edgemont Street. Since the maximum fire flow is 4,000 gallons per minute (gpm) and the maximum day demand is 1,491 gpm, the existing pumps have to be replaced with three higher capacity pumps under this alternative.

Water Supply – Current primary water supply is provided via one well (No. 17) located within the BSMWC service area. Additional water supply would be provided through a second well proposed to be within BSMWC service area and supplemental water would continue to be supplied by WMWD as necessary for blending. The location of the proposed well site has not been determined.

Alternative 2

Storage - No additional storage capacity is required for this alternative as BSMWC water system floats off WMWD water system. The existing storage tanks will only be used for blending the high-nitrate water from Well No. 17.

Pipeline - The Water Infrastructure Analysis Study proposes approximately 10 miles of water pipeline within BSMWC. The distribution system consists of very old and undersized water mains. The BSMWC has been upgrading waterlines and replacing these old and undersized pipelines, however the depth at which the lines were placed will most likely require reconstruction. The majority of the pipelines will be installed utilizing traditional trenching techniques within existing paved roads and road right-of-way(s).

Additionally, the existing 4-inch metered connection with WMWD will be upsized to a 12-inch compound meter. A proposed 16-inch and 12-inch diameter water pipeline will connect the proposed meter to the two existing 0.4 MG storage tanks as well as the system. The booster station and hydropneumatic tank will continue to draw water from the two 0.4 MG storage tanks and pump it to the distribution system.

Pumping – Since the ultimate maximum daily demand of 1,491 gpm and the fire flow of 4,000 gpm will be supplied from WMWD, no additional pump improvements are required.

Water Supply – WMWD will supply the water needed to supplement Well No. 17.

The Water Infrastructure Analysis Study indicates the project cost for Alternative 1 is $15,161,440; the project cost for Alternative 2 is $14,957,250. The water system facilities identified in Alternative 1 and Alternative 2 are Master Plan facilities and are not funded at this time.

The *General Plan EIR* determined that potential impacts to water service would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Implementation of the proposed project would increase water consumption, placing greater demands on water facilities. Since future development would occur on vacant infill parcels and/or through development/redevelopment of underutilized sites, project implementation is not anticipated to require significant facility extensions/upgrades to the existing system in order to meet the increased demand beyond those already identified in existing water master plans. Future development may be required to pay their fair-share of costs associated with any facility extensions or upgrades, as applicable.

The UWMP concluded that EMWD has the ability to meet current and projected water demands through 2035 during normal, historic single-dry and historic multiple-dry years using existing supplies and imported water from MWD with existing supply resources. Planned local supplies would supplement imported supplies and improve reliability for EMWD and the region. Since the UWMP uses population projections from the Western Riverside Council of Governments to determine the demand for water and the potential growth associated with the proposed project is consistent with regional growth, potential water demand associated with future development within the project area were anticipated in the UWMP. Implementation of the proposed project would be consistent with the analysis presented in the UWMP. All future development would be subject to compliance with the UWMP's Conservation Programs. Further, compliance with General Plan goals, policies, and associated implementation would ensure that future development would incorporate water conservation measures. All future development would be done in accordance with applicable sections of *Municipal Code* Chapters 8 and 9. If necessary, mitigation would be required to reduce potential impacts to a less than significant level. Conditions of approval would also be attached to discretionary permits. Therefore, project implementation within the EMWD service area would not require the construction of new water facilities or expansion of existing facilities. Impacts would be less than significant in this regard.

Wastewater

Wastewater service in Moreno Valley is provided by the Eastern Municipal Water District (EMWD), which serves most of the City and surrounding areas, and the Edgemont Community Services District (District), which provides service to a small area in southwestern Moreno Valley, including the portion of the project area located north of Alessandro Boulevard, between Day Street and Frederick Street. **NOTE TO CITY: Please confirm this is accurate.**

EMWD operates over 356 miles of sewer mains and six sewage lift stations to provide wastewater collection services within the General Plan planning area. All wastewater is collected and conveyed to the Moreno Valley Regional Water Reclamation Facility (MVRWRF) located in the southwestern portion of the City and has a capacity to treat 16 million gallons of wastewater per day (mgd) and a capacity to expand to 41 mgd.

The District provides wastewater treatment under contract with the City of Riverside. According to the District, the pipes that transmit sewage to the City of Riverside Water Quality Control Plant are over 50 years old and are in need of repair. Current flow treatment at the facility is approximately 30 mgd.

The *General Plan EIR* determined that potential impacts to wastewater services and treatment would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Implementation of the proposed project would increase the wastewater generated from the project area, placing greater demands on wastewater conveyance and treatment facilities. Since future development would occur on vacant infill parcels and development/redevelopment of underutilized sites currently developed, project implementation is not anticipated to require significant facility extensions/upgrades to the existing system in order to meet the increased demand.

Due to the conceptual nature of the future residential development, proposals would require individual assessments of potential impacts to wastewater facilities. All future development would be done in accordance with applicable sections of Moreno Valley Municipal Code Chapters 8 and 9. If necessary, mitigation would be required to reduce potential impacts to a less than significant level. Conditions of approval would also be attached to discretionary permits. Therefore, project implementation would result in a less than significant impact.

Mitigation Measures: No mitigation measures are required.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact With Mitigation Incorporated. Refer to Responses 4.9.d. and 4.9.e.

Mitigation Measures: Refer to Mitigation Measure HW-1. No additional mitigation measures are required.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. Refer to Response 4.16.b.

Senate Bills 221 and 610 were signed into law in 2001 and took effect January 1, 2002. The two bills amended State law to better link information on water supply availability to certain land use decisions by cities and counties. The two companion bills provide a regulatory forum that requires more collaborative planning between local water suppliers and cities and counties. All SB 610 and 221 reports are generated and adopted by the public water supplier.

Senate Bill (SB) 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. All "projects" meeting any of the following criteria require the assessment:

- A proposed residential development of more than 500 dwelling units (DU);
- A proposed shopping center or business establishment employing more than 1,000 persons or having more
- than 500,000 square feet (SF) of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 SF
- of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than
- 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 SF of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or

- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500-DU project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of SB 221 is to condition every tentative map for an applicable subdivision on the applicant by verifying that the public water supplier (PWS) has "sufficient water supply" available to serve it.

Due to the conceptual nature of the future development, proposals would require individual assessments of potential impacts to water supplies. Any future development meeting SB 610 criteria would require a water supply assessment. Similarly, any proposed project involving a subdivision pursuant to SB 221 would require verification of sufficient water supply from the water supplier. Compliance with the existing regulatory framework would further ensure that sufficient water supplies would be available from existing entitlements and resources to serve future development.

Mitigation Measures: No mitigation measures are required.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Refer to Response 4.16.b.

Mitigation Measures: No mitigation measures are required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Solid waste generated within the General Plan planning area is primarily deposited in the Riverside County Waste Management Department's (RCWMD) Badlands Landfill, located approximately 1.5 miles north of SR-60 near Ironwood Avenue and Theodore Street. However, the City's trash hauler can also use other County landfills in the area such as the Lamb Canyon Landfill and El Sobrante landfill. All Riverside County landfills are Class III disposal sites permitted to receive non-hazardous municipal solid waste.

The City has adopted a Source Reduction and Recycling Element (SRRE) in compliance with the requirements of AB 939. Pursuant to AB 939, the California Integrated Waste Management Board required all cities and counties within the State to prepare integrated waste management plans to attain solid waste reduction of 50 percent by the end of year 2000. All future development projects within the City are required to comply with the SRRE program for diverting solid waste.

The *General Plan EIR* determined that potential impacts to solid waste facilities would be less than significant. Future development within the project area was considered in the *General Plan EIR* analysis, since additional development within the area was assumed. Implementation of the proposed project would be consistent with the analysis presented in the *General Plan EIR* and would result in no new or greater impacts than previously identified.

Future development anticipated by the proposed project would generate additional solid waste, placing an increased demand on solid waste disposal services and ultimately require disposal at a landfill. Without specific project details, it is not possible to precisely determine the volume of solid waste that would be generated by future development. All future development projects within the City would be required to comply with the SRRE program for diverting solid waste. Continued compliance with the SRRE program would ensure that the impacts to the capacities of the landfill serving the City are minimized, thus, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. Refer to Response 4.16.f. Future development anticipated by the proposed project would comply with all Federal, State, and local statutes and regulations related to solid waste.

Mitigation Measures: No mitigation measures are required.

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4.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			✓	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. Based on the analysis contained in this Initial Study, the proposed project would not have a significant impact on biological resources, or historic, archaeological, or paleontological resources, with the implementation of Mitigation Measures BIO-1 through BIO-4 and CUL-1 and CUL-2; refer to Responses 4.4 and 4.5, respectively. Therefore, the proposed project would not potentially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. Based on the analysis contained in this Initial Study, it is not anticipated that implementation of the proposed project would have cumulatively considerable impacts with implementation of project mitigation measures. However, due to the conceptual nature of the future development, proposals would require individual assessments of potential cumulative impacts. If necessary, mitigation would be required to reduce potential impacts to a less than significant level.

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

Less Than Significant Impact. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air pollution, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

4.19 REFERENCES

The following references were utilized during preparation of this Initial Study/Environmental Checklist. These documents are available for review at the City of Moreno Valley located at 14177 Frederick Street, Moreno Valley, California 92552.

1. Atkins, *Final City of Moreno Valley Greenhouse Gas Analysis*, February 2012.

2. California Air Resources Board, *Climate Change Proposed Scoping Plan*, October 2008.

3. California Air Resources Board, *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*, August 19, 2011.

4. California Department of Toxic Substances Control, *Hazardous Waste and Substance Site List (CORTESE)*, http://www.envirostor.dtsc.ca.gov/public/mandated_reports.asp, accessed June 19, 2012.

5. City of Moreno Valley, *City of Moreno Valley Emergency Operations Plan*, March 2009.

6. City of Moreno Valley Planning Division and the Energy Efficiency and Conservation Task Force, *City of Moreno Valley Energy Efficiency and Climate Action Strategy*, April 2012.

7. City of Moreno Valley, *City of Moreno Valley General Plan*, July 11, 2006.

8. City of Moreno Valley, *Moreno Valley General Plan Final Program EIR*, July 2006.

9. City of Moreno Valley, *City of Moreno Valley Housing Element 2008-2014*, February 2011.

10. City of Moreno Valley Municipal Code.

11. City of Moreno Valley, *Initial Study/Environmental Assessment for City of Moreno Valley Edgemont Water Master Plan Update*, September 2009.

12. Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

13. Moreno Valley Fire Department Office of Emergency Management, *City of Moreno Valley Local Hazard Mitigation Plan*, October 4, 2011.

14. South Coast Air Quality Management District, *2007 Air Quality Management Plan for the South Coast Air Basin*, 2007.

15. South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.

16. State of California Department of Conservation, *Alquist-Priolo Earthquake Fault Zone Maps*, http://www.quake.ca.gov/gmaps/ap/ap_maps.htm, accessed June 18, 2012.

17. State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*. Sacramento, California, May 2012.

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4.20 REPORT PREPARATION PERSONNEL

City of Moreno Valley (Lead Agency)
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Eddie Torres, INCE, REA, Technical Studies Manager
Kelly Chiene, Air Quality, Greenhouse Gas, and Noise Analyst
Achilles Malisos, Air Quality, Greenhouse Gas, and Noise Analyst
Paul Martin, PE, TE, Traffic Analysis Manager
Alex Tabrizi, Traffic Analyst
Linda Bo, Graphic Artist

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5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Moreno Valley prepare a mitigated negative declaration for the Alessandro Boulevard Corridor Implementation Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Moreno Valley's determination (see Section 6.0, Lead Agency Determination).

January 25, 2013
Date

Collette L. Morse, AICP, Project Manager
RBF Consulting

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6.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	—
I find that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 4.0 have been added. A MITIGATED NEGATIVE DECLARATION will be prepared.	✓
I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	—
I find that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	—

Signature: _____

Title: _____

Printed Name: _____

Agency: _____

Date: _____

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APPENDIX A
Air Quality Emissions Data

Alessandro Blvd. - Existing Operations

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	31.79	1000sqft
Apartments Low Rise	128	Dwelling Unit
Single Family Housing	46	Dwelling Unit
Strip Mall	997.11	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.41	0.04	3.73	0.00		0.00	0.19		0.00	0.19	18.48	110.88	129.36	0.06	0.00	131.42
Energy	0.03	0.30	0.18	0.00		0.00	0.02		0.00	0.02	0.00	5,247.67	5,247.67	0.23	0.09	5,280.50
Mobile	13.21	37.16	113.49	0.35	34.70	1.68	36.39	0.55	1.64	2.19	0.00	25,465.65	25,465.65	0.81	0.00	25,482.65
Waste						0.00	0.00		0.00	0.00	241.46	0.00	241.46	14.27	0.00	541.14
Water						0.00	0.00		0.00	0.00	0.00	525.66	525.66	2.80	0.08	608.50
Total	**19.65**	**37.50**	**117.40**	**0.35**	**34.70**	**1.68**	**36.60**	**0.55**	**1.64**	**2.40**	**259.94**	**31,349.86**	**31,609.80**	**18.17**	**0.17**	**32,044.21**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.41	0.04	3.73	0.00		0.00	0.19		0.00	0.19	18.48	110.88	129.36	0.06	0.00	131.42
Energy	0.03	0.30	0.18	0.00		0.00	0.02		0.00	0.02	0.00	5,247.67	5,247.67	0.23	0.09	5,280.50
Mobile	13.21	37.16	113.49	0.35	34.70	1.68	36.39	0.55	1.64	2.19	0.00	25,465.65	25,465.65	0.81	0.00	25,482.65
Waste						0.00	0.00		0.00	0.00	241.46	0.00	241.46	14.27	0.00	541.14
Water						0.00	0.00		0.00	0.00	0.00	525.66	525.66	2.80	0.08	608.50
Total	**19.65**	**37.50**	**117.40**	**0.35**	**34.70**	**1.68**	**36.60**	**0.55**	**1.64**	**2.40**	**259.94**	**31,349.86**	**31,609.80**	**18.17**	**0.17**	**32,044.21**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	13.21	37.16	113.49	0.35	34.70	1.68	36.39	0.55	1.64	2.19	0.00	25,465.65	25,465.65	0.81	0.00	25,482.65
Unmitigated	13.21	37.16	113.49	0.35	34.70	1.68	36.39	0.55	1.64	2.19	0.00	25,465.65	25,465.65	0.81	0.00	25,482.65
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	851.20	916.48	776.96	2,413,875	2,413,875
General Office Building	350.01	75.34	31.15	633,809	633,809
Single Family Housing	440.22	463.68	403.42	1,244,865	1,244,865
Strip Mall	41,065.98	41,918.50	20370.96	58,877,518	58,877,518
Total	42,707.40	43,374.01	21,582.49	63,170,066	63,170,066

4.3 Trip Type Information

	Miles	Trip %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	4,903.55	4,903.55	0.22	0.08	4,934.28
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	4,903.55	4,903.55	0.22	0.08	4,934.28
NaturalGas Mitigated	0.03	0.30	0.18	0.00		0.00	0.02		0.00	0.02	0.00	344.12	344.12	0.01	0.01	346.22
NaturalGas Unmitigated	0.03	0.30	0.18	0.00		0.00	0.02		0.00	0.02	0.00	344.12	344.12	0.01	0.01	346.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	2.15515e+006	0.01	0.10	0.04	0.00		0.00	0.01		0.00	0.01	0.00	115.01	115.01	0.00	0.00	115.71
General Office Building	116019	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	6.19	6.19	0.00	0.00	6.23
Single Family Housing	1.86414e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	99.48	99.48	0.00	0.00	100.08
Strip Mall	2.31329e+006	0.01	0.11	0.10	0.00		0.00	0.01		0.00	0.01	0.00	123.45	123.45	0.00	0.00	124.20
Total		**0.03**	**0.31**	**0.18**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**344.13**	**344.13**	**0.00**	**0.00**	**346.22**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	2.15515e+006	0.01	0.10	0.04	0.00		0.00	0.01		0.00	0.01	0.00	115.01	115.01	0.00	0.00	115.71
General Office Building	116019	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	6.19	6.19	0.00	0.00	6.23
Single Family Housing	1.86414e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	99.48	99.48	0.00	0.00	100.08
Strip Mall	2.31329e+006	0.01	0.11	0.10	0.00		0.00	0.01		0.00	0.01	0.00	123.45	123.45	0.00	0.00	124.20
Total		**0.03**	**0.31**	**0.18**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**344.13**	**344.13**	**0.00**	**0.00**	**346.22**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	572503					166.52	0.01	0.00	167.57
General Office Building	339792					98.84	0.00	0.00	99.46
Single Family Housing	331192					96.33	0.00	0.00	96.94

Strip Mall	1.56147e+007					4,541.86	0.21	0.08	4,570.32
Total						**4,903.55**	**0.22**	**0.08**	**4,934.29**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	572503					166.52	0.01	0.00	167.57
General Office Building	339792					98.84	0.00	0.00	99.46
Single Family Housing	331192					96.33	0.00	0.00	96.94
Strip Mall	1.56147e+007					4,541.86	0.21	0.08	4,570.32
Total						**4,903.55**	**0.22**	**0.08**	**4,934.29**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.41	0.04	3.73	0.00		0.00	0.19		0.00	0.19	18.48	110.88	129.36	0.06	0.00	131.42

Unmitigated	6.41	0.04	3.73	0.00		0.00	0.19		0.00	0.19	18.48	110.88	129.36	0.06	0.00	131.42
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.27					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.58	0.01	1.09	0.00		0.00	0.17		0.00	0.17	18.48	106.55	125.03	0.06	0.00	127.01
Landscaping	0.08	0.03	2.64	0.00		0.00	0.01		0.00	0.01	0.00	4.33	4.33	0.00	0.00	4.41
Total	**6.41**	**0.04**	**3.73**	**0.00**		**0.00**	**0.18**		**0.00**	**0.18**	**18.48**	**110.88**	**129.36**	**0.06**	**0.00**	**131.42**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.27					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.58	0.01	1.09	0.00		0.00	0.17		0.00	0.17	18.48	106.55	125.03	0.06	0.00	127.01
Landscaping	0.08	0.03	2.64	0.00		0.00	0.01		0.00	0.01	0.00	4.33	4.33	0.00	0.00	4.41
Total	**6.41**	**0.04**	**3.73**	**0.00**		**0.00**	**0.18**		**0.00**	**0.18**	**18.48**	**110.88**	**129.36**	**0.06**	**0.00**	**131.42**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					525.66	2.80	0.08	608.50
Unmitigated					525.66	2.80	0.08	608.50
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	8.33972 / 5.25765					48.67	0.26	0.01	56.28
General Office Building	5.65016 / 3.463					32.65	0.17	0.00	37.81
Single Family Housing	2.99709 / 1.88947					17.49	0.09	0.00	20.22
Strip Mall	73.8585 / 45.2681					426.85	2.27	0.06	494.20
Total						**525.66**	**2.79**	**0.07**	**608.51**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	8.33972 / 5.25765					48.67	0.26	0.01	56.28
General Office Building	5.65016 / 3.463					32.65	0.17	0.00	37.81
Single Family Housing	2.99709 / 1.88947					17.49	0.09	0.00	20.22
Strip Mall	73.8585 / 45.2681					426.85	2.27	0.06	494.20
Total						**525.66**	**2.79**	**0.07**	**608.51**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					241.46	14.27	0.00	541.14
Unmitigated					241.46	14.27	0.00	541.14
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	58.88					11.95	0.71	0.00	26.79
General Office Building	29.56					6.00	0.35	0.00	13.45
Single Family Housing	54.12					10.99	0.65	0.00	24.62
Strip Mall	1046.97					212.53	12.56	0.00	476.28
Total						**241.47**	**14.27**	**0.00**	**541.14**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	58.88					11.95	0.71	0.00	26.79
General Office Building	29.56					6.00	0.35	0.00	13.45
Single Family Housing	54.12					10.99	0.65	0.00	24.62
Strip Mall	1046.97					212.53	12.56	0.00	476.28
Total						**241.47**	**14.27**	**0.00**	**541.14**

9.0 Vegetation

Alessandro Blvd. - Existing Operations

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	31.79	1000sqft
Apartments Low Rise	128	Dwelling Unit
Single Family Housing	46	Dwelling Unit
Strip Mall	997.11	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Energy	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Mobile	86.16	226.63	694.44	2.25	229.60	10.12	239.72	3.29	9.86	13.16		179,630.93		5.43		179,744.87
Total	**136.83**	**229.32**	**767.50**	**2.40**	**229.60**	**10.12**	**249.13**	**3.29**	**9.86**	**22.57**	**1,227.87**	**184,867.61**		**10.36**	**0.12**	**186,347.95**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Energy	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Mobile	86.16	226.63	694.44	2.25	229.60	10.12	239.72	3.29	9.86	13.16		179,630.93		5.43		179,744.87
Total	**136.83**	**229.32**	**767.50**	**2.40**	**229.60**	**10.12**	**249.13**	**3.29**	**9.86**	**22.57**	**1,227.87**	**184,867.61**		**10.36**	**0.12**	**186,347.95**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	86.16	226.63	694.44	2.25	229.60	10.12	239.72	3.29	9.86	13.16		179,630.93		5.43		179,744.87
Unmitigated	86.16	226.63	694.44	2.25	229.60	10.12	239.72	3.29	9.86	13.16		179,630.93		5.43		179,744.87
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	851.20	916.48	776.96	2,413,875	2,413,875
General Office Building	350.01	75.34	31.15	633,809	633,809
Single Family Housing	440.22	463.68	403.42	1,244,865	1,244,865
Strip Mall	41,065.98	41,918.50	20370.96	58,877,518	58,877,518
Total	42,707.40	43,374.01	21,582.49	63,170,066	63,170,066

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60

General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
NaturalGas Unmitigated	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	5904.51	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04		694.65		0.01	0.01	698.88
General Office Building	317.86	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.40		0.00	0.00	37.62
Single Family Housing	5107.24	0.06	0.47	0.20	0.00		0.00	0.04		0.00	0.04		600.85		0.01	0.01	604.51

Strip Mall	6337.78	0.07	0.62	0.52	0.00		0.00	0.05		0.00	0.05		745.62		0.01	0.01	750.16
Total		**0.19**	**1.66**	**0.98**	**0.00**		**0.00**	**0.13**		**0.00**	**0.13**		**2,078.52**		**0.03**	**0.03**	**2,091.17**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	5.90451	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04		694.65		0.01	0.01	698.88
General Office Building	0.31786	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.40		0.00	0.00	37.62
Single Family Housing	5.10724	0.06	0.47	0.20	0.00		0.00	0.04		0.00	0.04		600.85		0.01	0.01	604.51
Strip Mall	6.33778	0.07	0.62	0.52	0.00		0.00	0.05		0.00	0.05		745.62		0.01	0.01	750.16
Total		**0.19**	**1.66**	**0.98**	**0.00**		**0.00**	**0.13**		**0.00**	**0.13**		**2,078.52**		**0.03**	**0.03**	**2,091.17**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92

Unmitigated	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.98					0.00	0.00		0.00	0.00						0.00
Consumer Products	24.55					0.00	0.00		0.00	0.00						0.00
Hearth	18.52	0.85	57.60	0.14		0.00	9.20		0.00	9.20	1,227.87	3,132.00		4.86	0.08	4,485.24
Landscaping	0.43	0.17	14.48	0.00		0.00	0.08		0.00	0.08		26.16		0.02		26.69
Total	**50.48**	**1.02**	**72.08**	**0.14**		**0.00**	**9.28**		**0.00**	**9.28**	**1,227.87**	**3,158.16**		**4.88**	**0.08**	**4,511.93**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.98					0.00	0.00		0.00	0.00						0.00
Consumer Products	24.55					0.00	0.00		0.00	0.00						0.00
Hearth	18.52	0.85	57.60	0.14		0.00	9.20		0.00	9.20	1,227.87	3,132.00		4.86	0.08	4,485.24
Landscaping	0.43	0.17	14.48	0.00		0.00	0.08		0.00	0.08		26.16		0.02		26.69
Total	**50.48**	**1.02**	**72.08**	**0.14**		**0.00**	**9.28**		**0.00**	**9.28**	**1,227.87**	**3,158.16**		**4.88**	**0.08**	**4,511.93**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Alessandro Blvd. - Existing Operations

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	31.79	1000sqft
Apartments Low Rise	128	Dwelling Unit
Single Family Housing	46	Dwelling Unit
Strip Mall	997.11	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Energy	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Mobile	83.21	223.41	680.70	2.05	229.60	10.20	239.79	3.29	9.94	13.23		164,272.24		5.36		164,384.81
Total	**133.88**	**226.10**	**753.76**	**2.20**	**229.60**	**10.20**	**249.20**	**3.29**	**9.94**	**22.64**	**1,227.87**	**169,508.92**		**10.29**	**0.12**	**170,987.89**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Energy	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Mobile	83.21	223.41	680.70	2.05	229.60	10.20	239.79	3.29	9.94	13.23		164,272.24		5.36		164,384.81
Total	**133.88**	**226.10**	**753.76**	**2.20**	**229.60**	**10.20**	**249.20**	**3.29**	**9.94**	**22.64**	**1,227.87**	**169,508.92**		**10.29**	**0.12**	**170,987.89**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	83.21	223.41	680.70	2.05	229.60	10.20	239.79	3.29	9.94	13.23		164,272.24		5.36		164,384.81
Unmitigated	83.21	223.41	680.70	2.05	229.60	10.20	239.79	3.29	9.94	13.23		164,272.24		5.36		164,384.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	851.20	916.48	776.96	2,413,875	2,413,875
General Office Building	350.01	75.34	31.15	633,809	633,809
Single Family Housing	440.22	463.68	403.42	1,244,865	1,244,865
Strip Mall	41,065.98	41,918.50	20370.96	58,877,518	58,877,518
Total	42,707.40	43,374.01	21,582.49	63,170,066	63,170,066

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60

General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
NaturalGas Unmitigated	0.19	1.67	0.98	0.01		0.00	0.13		0.00	0.13		2,078.52		0.04	0.04	2,091.16
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	5904.51	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04		694.65		0.01	0.01	698.88
General Office Building	317.86	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.40		0.00	0.00	37.62
Single Family Housing	5107.24	0.06	0.47	0.20	0.00		0.00	0.04		0.00	0.04		600.85		0.01	0.01	604.51

Strip Mall	6337.78	0.07	0.62	0.52	0.00		0.00	0.05		0.00	0.05		745.62		0.01	0.01	750.16
Total		**0.19**	**1.66**	**0.98**	**0.00**		**0.00**	**0.13**		**0.00**	**0.13**		**2,078.52**		**0.03**	**0.03**	**2,091.17**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	5.90451	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04		694.65		0.01	0.01	698.88
General Office Building	0.31786	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.40		0.00	0.00	37.62
Single Family Housing	5.10724	0.06	0.47	0.20	0.00		0.00	0.04		0.00	0.04		600.85		0.01	0.01	604.51
Strip Mall	6.33778	0.07	0.62	0.52	0.00		0.00	0.05		0.00	0.05		745.62		0.01	0.01	750.16
Total		**0.19**	**1.66**	**0.98**	**0.00**		**0.00**	**0.13**		**0.00**	**0.13**		**2,078.52**		**0.03**	**0.03**	**2,091.17**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92

Unmitigated	50.48	1.02	72.08	0.14		0.00	9.28		0.00	9.28	1,227.87	3,158.16		4.89	0.08	4,511.92
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.98					0.00	0.00		0.00	0.00						0.00
Consumer Products	24.55					0.00	0.00		0.00	0.00						0.00
Hearth	18.52	0.85	57.60	0.14		0.00	9.20		0.00	9.20	1,227.87	3,132.00		4.86	0.08	4,485.24
Landscaping	0.43	0.17	14.48	0.00		0.00	0.08		0.00	0.08		26.16		0.02		26.69
Total	**50.48**	**1.02**	**72.08**	**0.14**		**0.00**	**9.28**		**0.00**	**9.28**	**1,227.87**	**3,158.16**		**4.88**	**0.08**	**4,511.93**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.98					0.00	0.00		0.00	0.00						0.00
Consumer Products	24.55					0.00	0.00		0.00	0.00						0.00
Hearth	18.52	0.85	57.60	0.14		0.00	9.20		0.00	9.20	1,227.87	3,132.00		4.86	0.08	4,485.24
Landscaping	0.43	0.17	14.48	0.00		0.00	0.08		0.00	0.08		26.16		0.02		26.69
Total	**50.48**	**1.02**	**72.08**	**0.14**		**0.00**	**9.28**		**0.00**	**9.28**	**1,227.87**	**3,158.16**		**4.88**	**0.08**	**4,511.93**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Alessandro Blvd. - Proposed Operations

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	5856	Dwelling Unit
Condo/Townhouse	1432	Dwelling Unit
Strip Mall	1168.61	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Energy	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	22,378.43	22,378.43	0.82	0.39	22,517.35
Mobile	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Waste						0.00	0.00		0.00	0.00	929.60	0.00	929.60	54.94	0.00	2,083.30
Water						0.00	0.00		0.00	0.00	0.00	3,271.42	3,271.42	17.28	0.48	3,783.49
Total	**98.07**	**101.63**	**476.11**	**1.18**	**106.48**	**5.04**	**119.81**	**1.68**	**4.91**	**14.88**	**1,703.72**	**106,939.03**	**108,642.76**	**77.93**	**0.98**	**110,583.37**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Energy	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	22,378.43	22,378.43	0.82	0.39	22,517.35
Mobile	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Waste						0.00	0.00		0.00	0.00	929.60	0.00	929.60	54.94	0.00	2,083.30
Water						0.00	0.00		0.00	0.00	0.00	3,271.42	3,271.42	17.28	0.48	3,783.49
Total	**98.07**	**101.63**	**476.11**	**1.18**	**106.48**	**5.04**	**119.81**	**1.68**	**4.91**	**14.88**	**1,703.72**	**106,939.03**	**108,642.76**	**77.93**	**0.98**	**110,583.37**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Unmitigated	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,604.48	41,928.96	35545.92	103,663,277	103,663,277
Condo/Townhouse	8,706.56	10,253.12	8692.24	25,349,353	25,349,353
Strip Mall	44,325.38	49,128.36	23874.70	64,819,980	64,819,980
Total	88,636.42	101,310.44	68,112.86	193,832,610	193,832,610

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
Condo/Townhouse	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	14,998.66	14,998.66	0.68	0.26	15,092.66
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	14,998.66	14,998.66	0.68	0.26	15,092.66
NaturalGas Mitigated	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	7,379.77	7,379.77	0.14	0.14	7,424.68
NaturalGas Unmitigated	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	7,379.77	7,379.77	0.14	0.14	7,424.68
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.85979e+007	0.53	4.54	1.93	0.03		0.00	0.37		0.00	0.37	0.00	5,261.56	5,261.56	0.10	0.10	5,293.58
Condo/Townhouse	3.69826e+007	0.20	1.70	0.73	0.01		0.00	0.14		0.00	0.14	0.00	1,973.53	1,973.53	0.04	0.04	1,985.54
Strip Mall	2.71118e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.68	144.68	0.00	0.00	145.56
Total		**0.74**	**6.37**	**2.77**	**0.04**		**0.00**	**0.52**		**0.00**	**0.52**	**0.00**	**7,379.77**	**7,379.77**	**0.14**	**0.14**	**7,424.68**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.85979e+007	0.53	4.54	1.93	0.03		0.00	0.37		0.00	0.37	0.00	5,261.56	5,261.56	0.10	0.10	5,293.58
Condo/Townhouse	3.69826e+007	0.20	1.70	0.73	0.01		0.00	0.14		0.00	0.14	0.00	1,973.53	1,973.53	0.04	0.04	1,985.54
Strip Mall	2.71118e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.68	144.68	0.00	0.00	145.56
Total		**0.74**	**6.37**	**2.77**	**0.04**		**0.00**	**0.52**		**0.00**	**0.52**	**0.00**	**7,379.77**	**7,379.77**	**0.14**	**0.14**	**7,424.68**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.6192e+007					7,618.49	0.34	0.13	7,666.24
Condo/Townhouse	7.07226e+006					2,057.11	0.09	0.04	2,070.01
Strip Mall	1.83004e+007					5,323.06	0.24	0.09	5,356.42
Total						**14,998.66**	**0.67**	**0.26**	**15,092.67**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.6192e+007					7,618.49	0.34	0.13	7,666.24
Condo/Townhouse	7.07226e+006					2,057.11	0.09	0.04	2,070.01
Strip Mall	1.83004e+007					5,323.06	0.24	0.09	5,356.42
Total						**14,998.66**	**0.67**	**0.26**	**15,092.67**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Unmitigated	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	24.17	0.61	45.81	0.07		0.00	7.17		0.00	7.16	774.12	4,462.80	5,236.93	2.37	0.11	5,319.80
Landscaping	3.31	1.27	110.61	0.01		0.00	0.61		0.00	0.61	0.00	181.28	181.28	0.17	0.00	184.90
Total	**62.24**	**1.88**	**156.42**	**0.08**		**0.00**	**7.78**		**0.00**	**7.77**	**774.12**	**4,644.08**	**5,418.21**	**2.54**	**0.11**	**5,504.70**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	24.17	0.61	45.81	0.07		0.00	7.17		0.00	7.16	774.12	4,462.80	5,236.93	2.37	0.11	5,319.80
Landscaping	3.31	1.27	110.61	0.01		0.00	0.61		0.00	0.61	0.00	181.28	181.28	0.17	0.00	184.90
Total	**62.24**	**1.88**	**156.42**	**0.08**		**0.00**	**7.78**		**0.00**	**7.77**	**774.12**	**4,644.08**	**5,418.21**	**2.54**	**0.11**	**5,504.70**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					3,271.42	17.28	0.48	3,783.49
Unmitigated					3,271.42	17.28	0.48	3,783.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	381.542 / 240.537					2,226.66	11.75	0.33	2,574.69
Condo/Townhouse	93.3006 / 58.8199					544.50	2.87	0.08	629.60
Strip Mall	86.5619 / 53.0541					500.27	2.66	0.07	579.20
Total						**3,271.43**	**17.28**	**0.48**	**3,783.49**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	381.542 / 240.537					2,226.66	11.75	0.33	2,574.69
Condo/Townhouse	93.3006 / 58.8199					544.50	2.87	0.08	629.60
Strip Mall	86.5619 / 53.0541					500.27	2.66	0.07	579.20
Total						**3,271.43**	**17.28**	**0.48**	**3,783.49**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e

	tons/yr				MT/yr			
Mitigated					929.60	54.94	0.00	2,083.30
Unmitigated					929.60	54.94	0.00	2,083.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2693.76					546.81	32.32	0.00	1,225.43
Condo/Townhouse	658.72					133.71	7.90	0.00	299.66
Strip Mall	1227.04					249.08	14.72	0.00	558.20
Total						**929.60**	**54.94**	**0.00**	**2,083.29**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2693.76					546.81	32.32	0.00	1,225.43
Condo/Townhouse	658.72					133.71	7.90	0.00	299.66
Strip Mall	1227.04					249.08	14.72	0.00	558.20
Total						**929.60**	**54.94**	**0.00**	**2,083.29**

9.0 Vegetation

Alessandro Blvd. - Proposed Operations

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	5856	Dwelling Unit
Condo/Townhouse	1432	Dwelling Unit
Strip Mall	1168.61	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Energy	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Mobile	237.58	598.53	2,089.17	7.18	741.55	31.89	773.43	10.63	31.08	41.71		569,456.69		16.72		569,807.88
Total	**1,225.98**	**676.04**	**5,123.39**	**13.26**	**741.55**	**31.89**	**1,164.99**	**10.63**	**31.08**	**433.18**	**51,429.46**	**746,310.79**		**222.20**	**3.97**	**803,635.67**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Energy	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Mobile	237.58	598.53	2,089.17	7.18	741.55	31.89	773.43	10.63	31.08	41.71		569,456.69		16.72		569,807.88
Total	**1,225.98**	**676.04**	**5,123.39**	**13.26**	**741.55**	**31.89**	**1,164.99**	**10.63**	**31.08**	**433.18**	**51,429.46**	**746,310.79**		**222.20**	**3.97**	**803,635.67**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	237.58	598.53	2,089.17	7.18	741.55	31.89	773.43	10.63	31.08	41.71		569,456.69		16.72		569,807.88
Unmitigated	237.58	598.53	2,089.17	7.18	741.55	31.89	773.43	10.63	31.08	41.71		569,456.69		16.72		569,807.88
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,604.48	41,928.96	35545.92	103,663,277	103,663,277
Condo/Townhouse	8,706.56	10,253.12	8692.24	25,349,353	25,349,353
Strip Mall	44,325.38	49,128.36	23874.70	64,819,980	64,819,980
Total	88,636.42	101,310.44	68,112.86	193,832,610	193,832,610

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
Condo/Townhouse	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
NaturalGas Unmitigated	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	270131	2.91	24.89	10.59	0.16		0.00	2.01		0.00	2.01		31,780.16		0.61	0.58	31,973.57
Condo/Townhouse	101322	1.09	9.34	3.97	0.06		0.00	0.75		0.00	0.75		11,920.26		0.23	0.22	11,992.80
Strip Mall	7427.88	0.08	0.73	0.61	0.00		0.00	0.06		0.00	0.06		873.87		0.02	0.02	879.19
Total		**4.08**	**34.96**	**15.17**	**0.22**		**0.00**	**2.82**		**0.00**	**2.82**		**44,574.29**		**0.86**	**0.82**	**44,845.56**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	270.131	2.91	24.89	10.59	0.16		0.00	2.01		0.00	2.01		31,780.16		0.61	0.58	31,973.57
Condo/Townhouse	101.322	1.09	9.34	3.97	0.06		0.00	0.75		0.00	0.75		11,920.26		0.23	0.22	11,992.80
Strip Mall	7.42788	0.08	0.73	0.61	0.00		0.00	0.06		0.00	0.06		873.87		0.02	0.02	879.19

Total		**4.08**	**34.96**	**15.17**	**0.22**		**0.00**	**2.82**		**0.00**	**2.82**		**44,574.29**		**0.86**	**0.82**	**44,845.56**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Unmitigated	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	23.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	167.44					0.00	0.00		0.00	0.00						0.00
Hearth	775.72	35.58	2,412.39	5.83		0.00	385.38		0.00	385.29	51,429.46	131,184.00		203.58	3.15	187,864.53
Landscaping	18.13	6.97	606.65	0.03		0.00	3.36		0.00	3.36		1,095.82		1.04		1,117.71
Total	**984.31**	**42.55**	**3,019.04**	**5.86**		**0.00**	**388.74**		**0.00**	**388.65**	**51,429.46**	**132,279.82**		**204.62**	**3.15**	**188,982.24**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	23.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	167.44					0.00	0.00		0.00	0.00						0.00
Hearth	775.72	35.58	2,412.39	5.83		0.00	385.38		0.00	385.29	51,429.46	131,184.00		203.58	3.15	187,864.53
Landscaping	18.13	6.97	606.65	0.03		0.00	3.36		0.00	3.36		1,095.82		1.04		1,117.71
Total	**984.31**	**42.55**	**3,019.04**	**5.86**		**0.00**	**388.74**		**0.00**	**388.65**	**51,429.46**	**132,279.82**		**204.62**	**3.15**	**188,982.24**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Alessandro Blvd. - Proposed Operations

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	5856	Dwelling Unit
Condo/Townhouse	1432	Dwelling Unit
Strip Mall	1168.61	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Energy	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Mobile	233.86	597.13	1,984.44	6.51	741.55	32.06	773.60	10.63	31.25	41.88		520,621.91		16.37		520,965.59
Total	**1,222.26**	**674.64**	**5,018.66**	**12.59**	**741.55**	**32.06**	**1,165.16**	**10.63**	**31.25**	**433.35**	**51,429.46**	**697,476.01**		**221.85**	**3.97**	**754,793.38**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Energy	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Mobile	233.86	597.13	1,984.44	6.51	741.55	32.06	773.60	10.63	31.25	41.88		520,621.91		16.37		520,965.59
Total	**1,222.26**	**674.64**	**5,018.66**	**12.59**	**741.55**	**32.06**	**1,165.16**	**10.63**	**31.25**	**433.35**	**51,429.46**	**697,476.01**		**221.85**	**3.97**	**754,793.38**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	233.86	597.13	1,984.44	6.51	741.55	32.06	773.60	10.63	31.25	41.88		520,621.91		16.37		520,965.59
Unmitigated	233.86	597.13	1,984.44	6.51	741.55	32.06	773.60	10.63	31.25	41.88		520,621.91		16.37		520,965.59
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,604.48	41,928.96	35545.92	103,663,277	103,663,277
Condo/Townhouse	8,706.56	10,253.12	8692.24	25,349,353	25,349,353
Strip Mall	44,325.38	49,128.36	23874.70	64,819,980	64,819,980
Total	88,636.42	101,310.44	68,112.86	193,832,610	193,832,610

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
Condo/Townhouse	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
NaturalGas Unmitigated	4.09	34.96	15.18	0.22		0.00	2.82		0.00	2.82		44,574.28		0.85	0.82	44,845.56
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	270131	2.91	24.89	10.59	0.16		0.00	2.01		0.00	2.01		31,780.16		0.61	0.58	31,973.57
Condo/Townhouse	101322	1.09	9.34	3.97	0.06		0.00	0.75		0.00	0.75		11,920.26		0.23	0.22	11,992.80
Strip Mall	7427.88	0.08	0.73	0.61	0.00		0.00	0.06		0.00	0.06		873.87		0.02	0.02	879.19
Total		**4.08**	**34.96**	**15.17**	**0.22**		**0.00**	**2.82**		**0.00**	**2.82**		**44,574.29**		**0.86**	**0.82**	**44,845.56**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	270.131	2.91	24.89	10.59	0.16		0.00	2.01		0.00	2.01		31,780.16		0.61	0.58	31,973.57
Condo/Townhouse	101.322	1.09	9.34	3.97	0.06		0.00	0.75		0.00	0.75		11,920.26		0.23	0.22	11,992.80
Strip Mall	7.42788	0.08	0.73	0.61	0.00		0.00	0.06		0.00	0.06		873.87		0.02	0.02	879.19
Total		**4.08**	**34.96**	**15.17**	**0.22**		**0.00**	**2.82**		**0.00**	**2.82**		**44,574.29**		**0.86**	**0.82**	**44,845.56**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Unmitigated	984.31	42.55	3,019.04	5.86		0.00	388.74		0.00	388.65	51,429.46	132,279.82		204.63	3.15	188,982.23
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	23.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	167.44					0.00	0.00		0.00	0.00						0.00
Hearth	775.72	35.58	2,412.39	5.83		0.00	385.38		0.00	385.29	51,429.46	131,184.00		203.58	3.15	187,864.53
Landscaping	18.13	6.97	606.65	0.03		0.00	3.36		0.00	3.36		1,095.82		1.04		1,117.71
Total	**984.31**	**42.55**	**3,019.04**	**5.86**		**0.00**	**388.74**		**0.00**	**388.65**	**51,429.46**	**132,279.82**		**204.62**	**3.15**	**188,982.24**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	23.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	167.44					0.00	0.00		0.00	0.00						0.00
Hearth	775.72	35.58	2,412.39	5.83		0.00	385.38		0.00	385.29	51,429.46	131,184.00		203.58	3.15	187,864.53
Landscaping	18.13	6.97	606.65	0.03		0.00	3.36		0.00	3.36		1,095.82		1.04		1,117.71
Total	**984.31**	**42.55**	**3,019.04**	**5.86**		**0.00**	**388.74**		**0.00**	**388.65**	**51,429.46**	**132,279.82**		**204.62**	**3.15**	**188,982.24**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

APPENDIX B
Greenhouse Gas Modeling Data

Alessandro Blvd. - CARB Consistency

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	5856	Dwelling Unit
Condo/Townhouse	1432	Dwelling Unit
Strip Mall	1168.61	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use - proposed uses.

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	64.51	2.35	174.59	0.08		0.00	7.71		0.00	7.71	774.12	4,644.08	5,418.21	2.66	0.11	5,507.19
Energy	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	22,378.43	22,378.43	0.82	0.39	22,517.35
Mobile	135.12	361.32	1,453.81	2.47	106.44	11.03	117.47	4.07	11.03	15.10	0.00	103,440.81	103,440.81	9.30	0.00	103,636.17
Waste						0.00	0.00		0.00	0.00	929.60	0.00	929.60	54.94	0.00	2,083.30
Water						0.00	0.00		0.00	0.00	0.00	3,271.42	3,271.42	17.28	0.48	3,783.49
Total	**200.38**	**370.05**	**1,631.17**	**2.59**	**106.44**	**11.03**	**125.70**	**4.07**	**11.03**	**23.33**	**1,703.72**	**133,734.74**	**135,438.47**	**85.00**	**0.98**	**137,527.50**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	40.81	1.75	128.81	0.01		0.00	0.87		0.00	0.87	0.00	4,906.60	4,906.60	0.38	0.09	4,941.46

Energy	0.67	5.73	2.49	0.04		0.00	0.46		0.00	0.46	0.00	18,579.46	18,579.46	0.67	0.33	18,694.70
Mobile	119.79	305.45	1,252.72	2.06	87.27	9.22	96.48	3.34	9.22	12.55	0.00	85,547.23	85,547.23	7.92	0.00	85,713.54
Waste						0.00	0.00		0.00	0.00	464.80	0.00	464.80	27.47	0.00	1,041.65
Water						0.00	0.00		0.00	0.00	0.00	2,775.43	2,775.43	13.83	0.39	3,186.09
Total	**161.27**	**312.93**	**1,384.02**	**2.11**	**87.27**	**9.22**	**97.81**	**3.34**	**9.22**	**13.88**	**464.80**	**111,808.72**	**112,273.52**	**50.27**	**0.81**	**113,577.44**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Limit Parking Supply

Implement Trip Reduction Program

Transit Subsidy

Encourage Telecommuting and Alternative Work Schedules

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	119.79	305.45	1,252.72	2.06	87.27	9.22	96.48	3.34	9.22	12.55	0.00	85,547.23	85,547.23	7.92	0.00	85,713.54
Unmitigated	135.12	361.32	1,453.81	2.47	106.44	11.03	117.47	4.07	11.03	15.10	0.00	103,440.81	103,440.81	9.30	0.00	103,636.17
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,604.48	41,928.96	35545.92	103,663,277	85,553,351
Condo/Townhouse	8,706.56	10,253.12	8692.24	25,349,353	20,920,833
Strip Mall	44,325.38	49,128.36	23874.70	64,819,980	52,442,539
Total	88,636.42	101,310.44	68,112.86	193,832,610	158,916,723

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
Condo/Townhouse	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	11,948.66	11,948.66	0.54	0.20	12,023.55
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	14,998.66	14,998.66	0.68	0.26	15,092.66
NaturalGas Mitigated	0.67	5.73	2.49	0.04		0.00	0.46		0.00	0.46	0.00	6,630.80	6,630.80	0.13	0.12	6,671.15
NaturalGas Unmitigated	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	7,379.77	7,379.77	0.14	0.14	7,424.68
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.85979e+007	0.53	4.54	1.93	0.03		0.00	0.37		0.00	0.37	0.00	5,261.56	5,261.56	0.10	0.10	5,293.58
Condo/Townhouse	3.69826e+007	0.20	1.70	0.73	0.01		0.00	0.14		0.00	0.14	0.00	1,973.53	1,973.53	0.04	0.04	1,985.54
Strip Mall	2.71118e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.68	144.68	0.00	0.00	145.56
Total		**0.74**	**6.37**	**2.77**	**0.04**		**0.00**	**0.52**		**0.00**	**0.52**	**0.00**	**7,379.77**	**7,379.77**	**0.14**	**0.14**	**7,424.68**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	8.87029e+007	0.48	4.09	1.74	0.03		0.00	0.33		0.00	0.33	0.00	4,733.52	4,733.52	0.09	0.09	4,762.33
Condo/Townhouse	3.31257e+007	0.18	1.53	0.65	0.01		0.00	0.12		0.00	0.12	0.00	1,767.71	1,767.71	0.03	0.03	1,778.47
Strip Mall	2.4279e+006	0.01	0.12	0.10	0.00		0.00	0.01		0.00	0.01	0.00	129.56	129.56	0.00	0.00	130.35
Total		**0.67**	**5.74**	**2.49**	**0.04**		**0.00**	**0.46**		**0.00**	**0.46**	**0.00**	**6,630.79**	**6,630.79**	**0.12**	**0.12**	**6,671.15**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.6192e+007					7,618.49	0.34	0.13	7,666.24
Condo/Townhouse	7.07226e+006					2,057.11	0.09	0.04	2,070.01
Strip Mall	1.83004e+007					5,323.06	0.24	0.09	5,356.42
Total						**14,998.66**	**0.67**	**0.26**	**15,092.67**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.20513e+007					6,414.07	0.29	0.11	6,454.27

Condo/Townhouse	5.96496e+006					1,735.03	0.08	0.03	1,745.91
Strip Mall	1.30627e+007					3,799.56	0.17	0.07	3,823.38
Total						**11,948.66**	**0.54**	**0.21**	**12,023.56**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	40.81	1.75	128.81	0.01		0.00	0.87		0.00	0.87	0.00	4,906.60	4,906.60	0.38	0.09	4,941.46
Unmitigated	64.51	2.35	174.59	0.08		0.00	7.71		0.00	7.71	774.12	4,644.08	5,418.21	2.66	0.11	5,507.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	24.17	0.61	45.81	0.07		0.00	7.17		0.00	7.16	774.12	4,462.80	5,236.93	2.37	0.11	5,319.80
Landscaping	5.57	1.75	128.79	0.01		0.00	0.54		0.00	0.54	0.00	181.28	181.28	0.29	0.00	187.38
Total	**64.50**	**2.36**	**174.60**	**0.08**		**0.00**	**7.71**		**0.00**	**7.70**	**774.12**	**4,644.08**	**5,418.21**	**2.66**	**0.11**	**5,507.18**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.48	0.00	0.03	0.00		0.00	0.33		0.00	0.33	0.00	4,725.32	4,725.32	0.09	0.09	4,754.08
Landscaping	5.57	1.75	128.79	0.01		0.00	0.54		0.00	0.54	0.00	181.28	181.28	0.29	0.00	187.38
Total	**40.81**	**1.75**	**128.82**	**0.01**		**0.00**	**0.87**		**0.00**	**0.87**	**0.00**	**4,906.60**	**4,906.60**	**0.38**	**0.09**	**4,941.46**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					2,775.43	13.83	0.39	3,186.09
Unmitigated					3,271.42	17.28	0.48	3,783.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	381.542 / 240.537					2,226.66	11.75	0.33	2,574.69
Condo/Townhouse	93.3006 / 58.8199					544.50	2.87	0.08	629.60
Strip Mall	86.5619 / 53.0541					500.27	2.66	0.07	579.20
Total						**3,271.43**	**17.28**	**0.48**	**3,783.49**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	305.234 / 225.865					1,889.37	9.40	0.26	2,168.48
Condo/Townhouse	74.6405 / 55.2319					462.02	2.30	0.06	530.27
Strip Mall	69.2495 / 49.8178					424.04	2.13	0.06	487.34
Total						**2,775.43**	**13.83**	**0.38**	**3,186.09**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					464.80	27.47	0.00	1,041.65
Unmitigated					929.60	54.94	0.00	2,083.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2693.76					546.81	32.32	0.00	1,225.43
Condo/Townhouse	658.72					133.71	7.90	0.00	299.66
Strip Mall	1227.04					249.08	14.72	0.00	558.20
Total						**929.60**	**54.94**	**0.00**	**2,083.29**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	1346.88					273.40	16.16	0.00	612.72
Condo/Townhouse	329.36					66.86	3.95	0.00	149.83
Strip Mall	613.52					124.54	7.36	0.00	279.10
Total						**464.80**	**27.47**	**0.00**	**1,041.65**

9.0 Vegetation

Alessandro Blvd. - Proposed Operations

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	5856	Dwelling Unit
Condo/Townhouse	1432	Dwelling Unit
Strip Mall	1168.61	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Operations run, no construction.

Vehicle Trips - Trip rates from traffic study.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Energy	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	22,378.43	22,378.43	0.82	0.39	22,517.35
Mobile	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Waste						0.00	0.00		0.00	0.00	929.60	0.00	929.60	54.94	0.00	2,083.30
Water						0.00	0.00		0.00	0.00	0.00	3,271.42	3,271.42	17.28	0.48	3,783.49
Total	**98.07**	**101.63**	**476.11**	**1.18**	**106.48**	**5.04**	**119.81**	**1.68**	**4.91**	**14.88**	**1,703.72**	**106,939.03**	**108,642.76**	**77.93**	**0.98**	**110,583.37**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Energy	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	22,378.43	22,378.43	0.82	0.39	22,517.35
Mobile	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Waste						0.00	0.00		0.00	0.00	929.60	0.00	929.60	54.94	0.00	2,083.30
Water						0.00	0.00		0.00	0.00	0.00	3,271.42	3,271.42	17.28	0.48	3,783.49
Total	**98.07**	**101.63**	**476.11**	**1.18**	**106.48**	**5.04**	**119.81**	**1.68**	**4.91**	**14.88**	**1,703.72**	**106,939.03**	**108,642.76**	**77.93**	**0.98**	**110,583.37**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Unmitigated	35.08	93.37	316.92	1.06	106.48	5.04	111.51	1.68	4.91	6.58	0.00	76,645.10	76,645.10	2.35	0.00	76,694.52
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,604.48	41,928.96	35545.92	103,663,277	103,663,277
Condo/Townhouse	8,706.56	10,253.12	8692.24	25,349,353	25,349,353
Strip Mall	44,325.38	49,128.36	23874.70	64,819,980	64,819,980
Total	88,636.42	101,310.44	68,112.86	193,832,610	193,832,610

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	40.20	19.20	40.60
Condo/Townhouse	10.80	7.30	7.50	40.20	19.20	40.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	14,998.66	14,998.66	0.68	0.26	15,092.66
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	14,998.66	14,998.66	0.68	0.26	15,092.66
NaturalGas Mitigated	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	7,379.77	7,379.77	0.14	0.14	7,424.68
NaturalGas Unmitigated	0.75	6.38	2.77	0.04		0.00	0.52		0.00	0.52	0.00	7,379.77	7,379.77	0.14	0.14	7,424.68
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.85979e+007	0.53	4.54	1.93	0.03		0.00	0.37		0.00	0.37	0.00	5,261.56	5,261.56	0.10	0.10	5,293.58
Condo/Townhouse	3.69826e+007	0.20	1.70	0.73	0.01		0.00	0.14		0.00	0.14	0.00	1,973.53	1,973.53	0.04	0.04	1,985.54
Strip Mall	2.71118e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.68	144.68	0.00	0.00	145.56
Total		**0.74**	**6.37**	**2.77**	**0.04**		**0.00**	**0.52**		**0.00**	**0.52**	**0.00**	**7,379.77**	**7,379.77**	**0.14**	**0.14**	**7,424.68**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.85979e+007	0.53	4.54	1.93	0.03		0.00	0.37		0.00	0.37	0.00	5,261.56	5,261.56	0.10	0.10	5,293.58
Condo/Townhouse	3.69826e+007	0.20	1.70	0.73	0.01		0.00	0.14		0.00	0.14	0.00	1,973.53	1,973.53	0.04	0.04	1,985.54
Strip Mall	2.71118e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.68	144.68	0.00	0.00	145.56
Total		**0.74**	**6.37**	**2.77**	**0.04**		**0.00**	**0.52**		**0.00**	**0.52**	**0.00**	**7,379.77**	**7,379.77**	**0.14**	**0.14**	**7,424.68**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.6192e+007					7,618.49	0.34	0.13	7,666.24
Condo/Townhouse	7.07226e+006					2,057.11	0.09	0.04	2,070.01
Strip Mall	1.83004e+007					5,323.06	0.24	0.09	5,356.42
Total						**14,998.66**	**0.67**	**0.26**	**15,092.67**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.6192e+007					7,618.49	0.34	0.13	7,666.24
Condo/Townhouse	7.07226e+006					2,057.11	0.09	0.04	2,070.01
Strip Mall	1.83004e+007					5,323.06	0.24	0.09	5,356.42
Total						**14,998.66**	**0.67**	**0.26**	**15,092.67**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Unmitigated	62.24	1.88	156.42	0.08		0.00	7.78		0.00	7.78	774.12	4,644.08	5,418.21	2.54	0.11	5,504.71
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	24.17	0.61	45.81	0.07		0.00	7.17		0.00	7.16	774.12	4,462.80	5,236.93	2.37	0.11	5,319.80
Landscaping	3.31	1.27	110.61	0.01		0.00	0.61		0.00	0.61	0.00	181.28	181.28	0.17	0.00	184.90
Total	**62.24**	**1.88**	**156.42**	**0.08**		**0.00**	**7.78**		**0.00**	**7.77**	**774.12**	**4,644.08**	**5,418.21**	**2.54**	**0.11**	**5,504.70**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.20					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.56					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	24.17	0.61	45.81	0.07		0.00	7.17		0.00	7.16	774.12	4,462.80	5,236.93	2.37	0.11	5,319.80
Landscaping	3.31	1.27	110.61	0.01		0.00	0.61		0.00	0.61	0.00	181.28	181.28	0.17	0.00	184.90
Total	**62.24**	**1.88**	**156.42**	**0.08**		**0.00**	**7.78**		**0.00**	**7.77**	**774.12**	**4,644.08**	**5,418.21**	**2.54**	**0.11**	**5,504.70**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					3,271.42	17.28	0.48	3,783.49
Unmitigated					3,271.42	17.28	0.48	3,783.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	381.542 / 240.537					2,226.66	11.75	0.33	2,574.69
Condo/Townhouse	93.3006 / 58.8199					544.50	2.87	0.08	629.60
Strip Mall	86.5619 / 53.0541					500.27	2.66	0.07	579.20
Total						**3,271.43**	**17.28**	**0.48**	**3,783.49**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	381.542 / 240.537					2,226.66	11.75	0.33	2,574.69
Condo/Townhouse	93.3006 / 58.8199					544.50	2.87	0.08	629.60
Strip Mall	86.5619 / 53.0541					500.27	2.66	0.07	579.20
Total						**3,271.43**	**17.28**	**0.48**	**3,783.49**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e

	tons/yr				MT/yr			
Mitigated					929.60	54.94	0.00	2,083.30
Unmitigated					929.60	54.94	0.00	2,083.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2693.76					546.81	32.32	0.00	1,225.43
Condo/Townhouse	658.72					133.71	7.90	0.00	299.66
Strip Mall	1227.04					249.08	14.72	0.00	558.20
Total						**929.60**	**54.94**	**0.00**	**2,083.29**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2693.76					546.81	32.32	0.00	1,225.43
Condo/Townhouse	658.72					133.71	7.90	0.00	299.66
Strip Mall	1227.04					249.08	14.72	0.00	558.20
Total						**929.60**	**54.94**	**0.00**	**2,083.29**

9.0 Vegetation

APPENDIX C
Traffic Study

TRAFFIC IMPACT ANALYSIS

Prepared for

CITY OF MORENO VALLEY

Prepared by

RBF CONSULTING
A Baker Company

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November 30, 2012

JN 10-107939

This is a project of the City of Moreno Valley with funding provided by the Southern California Association of Governments' (SCAG) Compass Blueprint Program. Compass Blueprint assists Southern California cities and other organizations in evaluating planning options and stimulating development consistent with the region's goals. Compass Blueprint tools support visioning efforts, infill analyses, economic and policy analyses, and marketing and communication programs. The preparation of this report was funded in part through grant(s) from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) through the United States Department of Transportation (DOT) in accordance with the Metropolitan Planning Program as set forth in Section 104(f) of Title 23 of the U.S. Code. Additional funding was provided through a Blueprint Planning grant from the California Department of Transportation (Caltrans).

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All exhibits are provided at the end of the report, prior to the Appendices.

EXECUTIVE SUMMARY

This traffic analysis is prepared to evaluate traffic operations related to the Alessandro Boulevard Corridor Implementation Project, and the zoning change for Calculation 4 within the Housing Element. The proposed project is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, and 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City. The proposed changes affect approximately 294 acres along or adjacent to Alessandro Boulevard.

At full implementation, the proposed project would include 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses. This represents a change in the following over existing uses:

- Net decrease of 46 single-family dwelling units
- Net increase of 139,715 square feet of commercial and office uses
- Net increase of 7,160 multi-family dwelling units

The project is generally located at six nodes along Alessandro Boulevard, with one node (Calculation 4) located near the corner of Perris Boulevard/Iris Avenue.

When accounting for the proposed and displaced land uses, the proposed project is forecast to generate approximately 45,915 net new daily trips, which includes 3,660 net new a.m. peak hour trips and 4,154 net new p.m. peak hour trips.

The study roadway segments are operating at an acceptable LOS according to the City of Moreno Valley performance criteria with the exception of the following four study roadway segments:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

With the addition of project-generated trips, the following eight (8) roadway segments are forecast to operate at a deficient LOS according to the City of Moreno Valley performance criteria for forecast existing with project conditions:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Lasselle Street and Morrison Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Perris Street south of Cactus Avenue;
- Lasselle Street north of Alessandro Boulevard;
- Nason Street north of Alessandro Boulevard;

- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

Assuming implementation of the roadway segment mitigation measures, the study roadway segments are forecast to operate at an acceptable LOS according to City of Moreno Valley performance criteria for mitigated forecast existing with project conditions.

The following three (3) roadway segments are forecast to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout without project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

With the addition of project-generated trips, the following three (3) roadway segments are forecast to continue to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout with project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

The three deficient roadway segments identified above were already identified as significantly unavoidable impacts in the General Plan EIR, and Statements of Overriding Consideration were adopted. The proposed project does not generate any new significant impacts beyond those already analyzed in the General Plan EIR, nor does the proposed project generate any impacts that exceed significance threshold criteria.

Since the City LOS standard is LOS C, or LOS D, and is higher than the designated CMP standards for Riverside County, the City LOS standards govern, and no CMP impact is forecast to occur.

Proportionate contribution to the following mitigation measures are identified to fully reduce the forecast traffic impacts to a less than significant level at the deficient study roadway segments for forecast existing with project conditions:

Mitigation Measure #1 **Alessandro Boulevard between Kitching Street and Lasselle Street –** Widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #2 **Alessandro Boulevard between Lasselle Street and Morrison Street –** Widen/restripe Alessandro Boulevard between Lasselle Street and Morrison Street from a two-lane divided roadway to a four -lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #3 **Alessandro Boulevard between Oliver Street and Moreno Beach Drive –** Widen/restripe Alessandro Boulevard between Oliver Street and Moreno Beach Drive from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #4 **Perris Street south of Cactus Avenue –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Perris Street south of Cactus Avenue from a four-lane divided roadway to a six-lane Divided Major Arterial.

Mitigation Measure #5 **Lasselle Street north of Alessandro Boulevard –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Lasselle Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial.

Mitigation Measure #6 **Nason Street north of Alessandro Boulevard –** Widen/restripe Nason Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Modified Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #7 **Moreno Beach Drive north of Alessandro Boulevard –** Widen/restripe Moreno Beach drive north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #8 **Moreno Beach Drive south of Alessandro Boulevard –** Widen/restripe Moreno Beach drive south of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Proportionate contribution to the following mitigation measures are identified to ensure that the forecast traffic impacts at the deficient roadway segments for forecast General Plan Buildout with project conditions remain at or below the LOS in Table 10:

Mitigation Measure #9 **Implement Project-Specific Transportation Demand Management Program –** As development occurs within the entire Traffic Impact Analysis study area, project applicants shall demonstrate, subject to the City's approval, implementation of transportation demand management (TDM) measures to reduce daily and peak hour traffic generation by a minimum of ten (10) percent. TDM measures may include but are not limited to financial contribution to creation and operation of a local shuttle to link land uses with park-and-ride lots and transit facilities (regional bus stations, Metrolink or other Transportation Center, etc.), ridesharing, bike/transit integration, cycling improvements, improved bike/pedestrian facilities, increased park-and-ride, telework, and alternative work schedules, etc.

Mitigation Measure #10 **Arterial Segment Analysis –** Conduct studies of specific arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan Buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan Buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations.

(Source: General Plan EIR, Mitigation Measure TRF-1)

Since implementation of the two mitigation measures listed above are expected to reduce project-related impacts, and since no new significant unavoidable impacts are identified, no additional mitigation measures are required.

INTRODUCTION

This traffic analysis is prepared to evaluate traffic operations related to the Alessandro Boulevard Corridor Implementation Project, and the zoning change for Calculation 4 within the Housing Element. The proposed project is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, and 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City. The proposed changes affect approximately 294 acres along or adjacent to Alessandro Boulevard.

At full implementation, the proposed project would include 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses. This represents a change in the following over existing uses:

- Net decrease of 46 single-family dwelling units
- Net increase of 139,715 square feet of commercial and office uses
- Net increase of 7,160 multi-family dwelling units

The project is generally located at six nodes along Alessandro Boulevard, with one node (Calculation 4) located near the corner of Perris Boulevard/Iris Avenue. Exhibit 1 shows the regional location of the project site. Exhibit 2 shows the project site location with the six nodes and the Housing Element Calculation 4 Area.

Study Area

This study evaluates operations at the following thirty-four (34) roadway segments:

1. Alessandro Boulevard between I-215 Frontage Road and Day Street;
2. Alessandro Boulevard between Day Street and Elsworth Street;
3. Alessandro Boulevard between Elsworth Street and Frederick Street;
4. Alessandro Boulevard between Frederick Street and Graham Street;
5. Alessandro Boulevard between Graham Street and Heacock Street;
6. Alessandro Boulevard between Heacock Street and Indian Street;
7. Alessandro Boulevard between Indian Street and Perris Street;
8. Alessandro Boulevard between Perris Street and Kitching Street;
9. Alessandro Boulevard between Kitching Street and Lasselle Street;
10. Alessandro Boulevard between Lasselle Street and Morrison Street;
11. Alessandro Boulevard between Morrison Street and Nason Street;
12. Alessandro Boulevard between Nason Street and Oliver Street;
13. Alessandro Boulevard between Oliver Street and Moreno Beach Drive;

14. Alessandro Boulevard between Moreno Beach Drive and Quincy Street;
15. Cactus Avenue west of Perris Street;
16. Cactus Avenue east of Perris Street;
17. Day Street north of Alessandro Boulevard;
18. Frederick Street north of Alessandro Boulevard;
19. Frederick Street south of Alessandro Boulevard;
20. Heacock Street north of Alessandro Boulevard;
21. Heacock Street south of Alessandro Boulevard;
22. Perris Street north of Alessandro Boulevard;
23. Perris Street south of Alessandro Boulevard;
24. Perris Street north of Cactus Avenue;
25. Perris Street south of Cactus Avenue;
26. Perris Street south of Iris Avenue;
27. Lasselle Street north of Alessandro Boulevard;
28. Lasselle Street south of Alessandro Boulevard;
29. Morrison Street north of Alessandro Boulevard;
30. Morrison Street south of Alessandro Boulevard (future);
31. Nason Street north of Alessandro Boulevard;
32. Nason Street south of Alessandro Boulevard;
33. Moreno Beach Drive north of Alessandro Boulevard; and
34. Moreno Beach Drive south of Alessandro Boulevard.

Exhibit 3 shows the locations of the study roadway segments, which are analyzed for the following study scenarios:

- Existing Conditions;
- Forecast Existing With Project Conditions;
- Forecast General Plan Buildout Without Project Conditions; and
- Forecast General Plan Buildout With Project Conditions.

TRANSPORTATION NETWORK

As noted in the City of Moreno Valley General Plan Circulation Element (GPCE), the City of Moreno Valley possesses an extensive transportation network that consists of state highways, arterials and local streets, public transit, and nearby rail. The following sections provide description of the key transportation systems such as the arterial system, transit network, bicycle network, and the pedestrian network.

Roadway Network

The project includes areas located along Alessandro Boulevard and near the Perris Boulevard/Iris Avenue. Major regional traffic is served by Interstate 215 (I-215) to the west, and State Route 60 (SR-60) to the north. Access to I-215 in the project vicinity is provided via interchanges at Alessandro Boulevard and Cactus Boulevard. Access to SR-60 in the project vicinity is provided via interchanges at Day Street, Frederik Street, Heacock Street, Perris Boulevard, Nason Street, and Moreno Beach Drive.

Alessandro Boulevard is an east-west roadway connecting the Moreno Valley area to the I-215 Freeway. Currently, Alessandro Boulevard varies in width from a two-lane divided roadway on the east end of the study area to a six-lane divided roadway on the west boundary of the study area near the I-215 Freeway. On-street parking is prohibited along Alessandro Boulevard in the study area. The City of Moreno Valley General Plan Circulation Element classifies Alessandro Boulevard within the study area as a six lane Divided Major Arterial.

Bicycle Network

The Moreno Valley Bikeway Plan consists of Class I, Class II and Class III routes. Class I bikeways are dedicated trails, separated from vehicular traffic. Class II are designated, striped bikeways generally located along the right shoulder of the roadway. Class III routes are designated bikeways, not striped, and are shared with vehicles. These bikeways provide the opportunity for an alternative mode of transportation for both recreational and commuting uses.

Transit Network

Public transit in the City of Moreno Valley consists primarily of bus service. As noted in the GPCE, it is anticipated that Moreno Valley will also have future access to commuter rail and Bus Rapid Transit (BRT) services. Major components of the public transit system are described below:

The ability to efficiently maneuver within and outside Moreno Valley is predominantly dependent on the automobile. Moreno Valley is working closely with the Riverside County Transportation Commission, the Riverside Transit Agency (RTA) and other local governments to establish efficient transit connections among areas of activity and concentrated development.

Fixed bus service on or crossing Alessandro Boulevard is provided via RTA routes 11, 18, 19, 20, and 35. Additionally, Amtrak Thruway service picks up on Alessandro Boulevard just west of Old 215 Frontage Road.

Currently, the RCTC owns a rail line located west of Moreno Valley, parallel to I-215. This is a service line track that carries a low volume of freight trains to and from industrial, commercial, and agricultural areas, south of Moreno Valley. As a Measure A project, RCTC intends to initiate commuter rail service on this line that would extend initially to Perris. A commuter rail station is planned for the southwest quadrant of the Alessandro Boulevard/I-215 interchange that would provide direct access for Moreno Valley residents. Funding is being collected to implement the new commuter rail service, and design plans are underway for stations along the new spur.

Consistency With General Plan Circulation Element

The General Plan Circulation Element (GPCE) includes discussion of issues and improvements that are relevant to roadway improvements in the vicinity of the proposed project. Goal 1 of the Circulation Element states:

- Develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system consistent with the City General Plan Circulation Element Map, which provides access to development and supports mobility requirements of the system's users.

ANALYSIS METHODOLOGY

Roadway Segment Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segment operation and is based on the capacity of the roadway segment and the volume of traffic using the roadway segment. The City of Moreno Valley utilizes the Volume-to-Capacity (V/C) analysis methodology to determine the operating LOS of the roadway segments.

The V/C analysis methodology describes the operation of a roadway segment using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding Volume/Capacity (V/C) ratios shown in Table 1.

Table 1
V/C & LOS Ranges

Roadway Segment	
V/C Ratio	**LOS**
≤ 0.60	A
> 0.61 ≤ 0.70	B
> 0.71 ≤ 0.80	C
> 0.81 ≤ 0.90	D
> 0.91 ≤ 1.00	E
> 1.00	F

Source: *1990 Transportation Research Board*.

The City of Moreno Valley Circulation Element recognizes that an LOS of C is optimal. However, it also allows peak hour levels of service in the LOS "D" range in certain locations. These locations include areas of high employment concentration, north/south roads in the vicinity of SR-60 or other locations in already developed areas of the City with geometric constraints that prevent LOS "C" from being achieved.

Generally, the capacity of a roadway is affected by a number of factors, including the street's width, the number of crossing arterials and collectors, the amount of green time give to the street at each signal, the presence or absence of on-street parking, the number of turning lanes at each intersection and the number of driveways.

The City of Moreno Valley roadway capacities used in this analysis to determine V/C ratios are shown in Table 2.

Table 2
City of Moreno Valley Roadway Segment Classification and Capacity

Facility Type	Number of Lanes	LOS E Capacity (Vehicles)
Divided Major Arterial	6	56,300
Divided Arterial	6	56,300
Divided Arterial	4	37,500
Arterial	4	25,000
Minor Arterial	4	25,000
Collector	2	12,500

Source: *City of Moreno Valley Traffic Impact analysis Preparation Guide (August 2007).*

City of Moreno Valley Performance Criteria

The City of Moreno Valley Circulation Element recognizes that an LOS of C is optimal, however, LOS D is the acceptable performance at some locations within the City. The LOS Standards within the City are identified within the Circulation Element by roadway segment and are summarized in Table 3 for the roadway segments analyzed within this report.

Table 3
Study Roadway Segment Acceptable LOS Target

Study Roadway Segment	Acceptable LOS
1. Alessandro Blvd btwn Old 215 Frontage Rd & Day St	D
2. Alessandro Blvd btwn Day St & Elsworth St	D
3. Alessandro Blvd btwn Elsworth St & Frederick St	D
4. Alessandro Blvd btwn Frederick St Graham St	D
5. Alessandro Blvd btwn Graham St & Heacock St	D
6. Alessandro Blvd btwn Heacock St & Indian St	D
7. Alessandro Blvd btwn Indian St & Perris St	D
8. Alessandro Blvd btwn Perris St & Kitching St	D
9. Alessandro Blvd btwn Kitching St & Lasselle St	D
10. Alessandro Blvd btwn Lasselle St & Morrison St	D
11. Alessandro Blvd btwn Morrison St & Nason St	D
12. Alessandro Blvd btwn Nason St & Oliver St	C
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	C
14. Alessandro Blvd btwn Moreno Beach Dr & Quincy St	C
15. Cactus Ave w/o Perris St	C
16. Cactus Ave e/o Perris St	C
17. Day St n/o Alessandro Blvd	D
18. Frederick St n/o Alessandro Blvd	C
19. Frederick St s/o Alessandro Blvd	D
20. Heacock St n/o Alessandro Blvd	D
21. Heacock St s/o Alessandro Blvd	D
22. Perris St n/o Alessandro Blvd	D
23. Perris St s/o Alessandro Blvd	D
24. Perris St n/o Cactus Ave	D
25. Perris St s/o Cactus Ave	D
26. Perris St s/o Iris Ave	D
27. Lasselle St n/o Alessandro Blvd	D
28. Lasselle St s/o Alessandro Blvd	D
29. Morrison St n/o Alessandro Blvd	C
30. Morrison St s/o Alessandro Blvd (future)	D
31. Nason St n/o Alessandro Blvd	C
32. Nason St s/o Alessandro Blvd	D
33. Moreno Beach Dr n/o Alessandro Blvd	D
34. Moreno Beach Dr s/o Alessandro Blvd	D

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between**.**
Source: *City of Moreno Valley Traffic Impact analysis Preparation Guide (August 2007).*

City of Moreno Valley Thresholds of Significance

Consistent with the GPCE traffic analysis, a significant impact would occur at roadway segments if implementation of the project would:

- Cause an increase in traffic that results in an LOS exceeding the City's LOS standards.

PROPOSED PROJECT

The proposed project is a City-initiated project to: 1) create the Mixed Use Overlay Districts to implement the Vision Plan for Alessandro Boulevard Corridor, and 2) increase the maximum permitted density to 30 dwelling units per acre in specified areas of the City. The proposed changes affect approximately 294 acres along or adjacent to Alessandro Boulevard.

At full implementation, the proposed project would include 7,288 multi-family dwelling units and 1,168,608 square feet of commercial uses. This represents a change in the following over existing uses:

- Net decrease of 46 single-family dwelling units
- Net increase of 139,715 square feet of commercial and office uses
- Net increase of 7,160 multi-family dwelling units

The project is generally located at six nodes along Alessandro Boulevard, with one node (Calculation 4) located near the corner of Perris Boulevard/Iris Avenue. Exhibit 2 shows the project site location with the six nodes and the Housing Element Calculation 4 Area. Each node is considered individually for the traffic analysis since they are typically spaced about 1-mile apart.

Forecast Project Trip Generation

To calculate trips forecast to be generated by the proposed land use, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized. Table 4 summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by uses proposed and displaced by the proposed project.

Table 4
***ITE* Trip Rates for Displaced & Proposed Project Site Uses**

Land Use (*ITE* Code)	Units	AM Peak Hour			PM Peak Hour			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Single-Family Detached Housing (210)	du	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Apartment (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Residential Townhouse (230)	du	0.07	0.37	0.44	0.35	0.17	0.52	5.81
General Office (710)	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
Shopping Center (820)	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94

Source: *2008 ITE Trip Generation Manual, 8th Edition*.
Note: tsf = thousand square feet. du = dwelling unit.

Table 4 summarizes the net trips forecast to be generated by the proposed project by each Node when accounting for proposed and displaced land uses.

Table 5
Forecast Trip Generation of Proposed Project

Location	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Node 1							
- 15 Single Family Dwelling Units	-3	-8	-11	-10	-6	-16	-144
- 177.881-tsf Shopping Center/Retail	-109	-69	-178	-326	-338	-664	-7,638
ITE 34% PM Pass-by Discount for Retail	0	0	0	111	115	226	226
542 Apartment Dwelling Units	54	222	276	217	119	336	3,604
136 Townhouse Dwelling Units	10	50	60	48	23	71	790
Node 1 Subtotal	**-48**	**195**	**147**	**40**	**-87**	**-47**	**-3,162**
Node 2							
575 Apartment Dwelling Units [1]	58	236	294	214	118	332	3,518
144 Townhouse Dwelling Units [1]	10	53	63	46	22	68	770
14.32-tsf General Office [1]	19	3	22	4	17	21	145
57.283-tsf Shopping Center/Retail [1]	35	22	57	98	101	199	2,263
ITE 34% PM Pass-by Discount for Retail	0	0	0	-33	-34	-67	-67
Node 2 Subtotal	**122**	**314**	**436**	**329**	**224**	**553**	**6,629**

Location	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Node 3							
- 70.677-tsf Shopping Center/Retail	-43	-28	-71	-129	-134	-263	-3,035
ITE 34% PM Pass-by Discount for Retail	0	0	0	44	46	89	89
377 Apartment Dwelling Units	38	155	193	151	83	234	2,507
94 Townhouse Dwelling Units	7	35	42	33	16	49	546
Node 3 Subtotal	**2**	**162**	**164**	**99**	**11**	**109**	**107**
Node 4							
- 273.757-tsf Shopping Center/Retail	-167	-107	-274	-501	-520	-1021	-11,755
ITE 34% PM Pass-by Discount for Retail	0	0	0	170	177	347	347
697 Apartment Dwelling Units	70	286	356	279	153	432	4,635
174 Townhouse Dwelling Units	12	64	76	61	30	91	1,011
Node 4 Subtotal	**-85**	**243**	**158**	**9**	**-160**	**-151**	**-5,762**
Node 5							
390 Apartment Dwelling Units [2]	39	160	199	136	75	211	2,283
97 Townhouse Dwelling Units [2]	7	36	43	30	14	44	496
24.350-tsf General Office [2]	33	5	38	5	26	31	236
97.400-tsf Shopping Center/Retail [2]	59	38	97	155	161	316	3,680
ITE 34% PM Pass-by Discount for Retail	0	0	0	-53	-55	-108	-108
Node 5 Subtotal	**138**	**239**	**377**	**273**	**221**	**494**	**6,587**
Node 6							
- 21 Single Family Dwelling Units	-4	-12	-16	-13	-8	-21	-201
- 31.786-tsf General Office	-43	-6	-49	-8	-39	-47	-350
2417 Apartment Dwelling Units [3]	242	991	1,233	899	495	1,394	14,948
604 Townhouse Dwelling Units [3]	42	223	265	196	96	292	3,263
263.712-tsf Shopping Center/Retail [3]	161	103	264	449	466	915	10,531
ITE 34% PM Pass-by Discount for Retail	0	0	0	-153	-158	-311	-311
Node 6 Subtotal	**398**	**1,299**	**1,697**	**1,370**	**852**	**2,222**	**27,880**

Location	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Calculation Area 4							
- 10 Single Family Dwelling Units	-2	-6	-8	-6	-4	-10	-96
730 Apartment Dwelling Units [4]	73	299	372	254	140	394	4,224
183 Townhouse Dwelling Units [4]	13	68	81	56	27	83	925
236.750- tsf Shopping Center [4]	144	92	236	377	391	768	8,844
ITE 34% PM Pass-by Discount for Retail	0	0	0	-128	-133	-261	-261
Calculation Area 4 Subtotal	**228**	**453**	**681**	**553**	**421**	**974**	**13,636**
Proposed Project Total Forecast Net Trip Generation	**755**	**2,905**	**3,660**	**2,673**	**1,482**	**4,154**	**45,915**

Notes: tsf = thousand square feet.

1 = Assumes the following internal trip capture reduction as calculated per ITE guidelines: 7% Reduction in p.m. peak hour trips, and 8% reduction in daily trips.

2 = Assumes the following internal trip capture reduction as calculated per ITE guidelines: 13% Reduction in p.m. peak hour trips, and 12% reduction in daily trips.

3 = Assumes the following internal trip capture reduction as calculated per ITE guidelines: 7% Reduction in p.m. peak hour trips, and 7% reduction in daily trips.

4 = Assumes the following internal trip capture reduction as calculated per ITE guidelines: 13% Reduction in p.m. peak hour trips, and 13% reduction in daily trips.

As shown in Table 5, when accounting for the proposed and displaced land uses, the proposed project is forecast to generate approximately 45,915 net new daily trips, which includes 3,660 net new a.m. peak hour trips and 4,154 net new p.m. peak hour trips.

Trip Distribution of Proposed Project

Forecast trip distribution of the proposed project generated trips is based on field reconnaissance, understanding of the circulation system, and City-provided information. The trip distribution was refined where appropriate for General Plan Buildout conditions accounting for additional roadway connections. Appendix A shows forecast trip percent distribution of project-generated trips.

Project Trip Assignment

Exhibit 4 shows the corresponding assignment of project-generated daily trips assuming the trip percent distribution shown in Appendix A for forecast existing plus project conditions. Exhibit 5 shows the corresponding assignment of project-generated daily trips assuming the trip percent distribution shown in Appendix A for forecast General Plan Buildout conditions.

EXISTING CONDITIONS ANALYSIS

This section analyzes operations of the circulation system for existing conditions.

Existing Conditions Peak Hour Traffic Volumes

To determine existing operation of the study roadways, City of Moreno Valley staff provided year 2006 average daily traffic (ADT) volumes for the study roadway segments. Existing data was not available on Alessandro Boulevard between Old 215 Frontage Road and Day Street, however, this location is analyzed in the General Plan Buildout conditions scenarios.

Exhibit 6 shows existing ADT volumes at the study roadways. Exhibit 7 shows existing conditions roadway segment geometry.

Existing Conditions Roadway Segment LOS

Existing Table 6 summarizes existing conditions roadway segment ADT volumes and corresponding LOS.

Table 6
Existing Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	Existing ADT	V/C Ratio	LOS
1. Alessandro Blvd btwn Old 215 Frontage Rd & Day St	6D	56,300	D	N/A	N/A	N/A
2. Alessandro Blvd btwn Day St & Elsworth St	5D	46,875	D	35,600	0.76	C
3. Alessandro Blvd btwn Elsworth St & Frederick St	6D	56,300	D	31,300	0.56	A
4. Alessandro Blvd btwn Frederick St Graham St	5D	46,875	D	39,000	0.83	D
5. Alessandro Blvd btwn Graham St & Heacock St	5D	46,875	D	34,500	0.74	C
6. Alessandro Blvd btwn Heacock St & Indian St	6D	56,300	D	30,000	0.53	A
7. Alessandro Blvd btwn Indian St & Perris St	6D	56,300	D	23,000	0.41	A
8. Alessandro Blvd btwn Perris St & Kitching St	4D	37,500	D	18,100	0.48	A
9. Alessandro Blvd btwn Kitching St & Lasselle St	2D	12,500	D	16,600	**1.33**	**F**
10. Alessandro Blvd btwn Lasselle St & Morrison St	2D	12,500	D	8,000	0.64	B
11. Alessandro Blvd btwn Morrison St & Nason St	2D	12,500	D	8,400	0.67	B
12. Alessandro Blvd btwn Nason St & Oliver St	2D	12,500	C	8,800	0.70	B
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	2D	12,500	C	10,200	**0.82**	**D**
14. Alessandro Blvd btwn Moreno Beach Dr & Quincy St	2D	12,500	C	7,150	0.57	A
15. Cactus Ave w/o Perris St	4D	37,500	C	18,000	0.48	A
16. Cactus Ave e/o Perris St	4D	37,500	C	20,200	0.54	A
17. Day St n/o Alessandro Blvd	2D	12,500	D	8,600	0.69	B
18. Frederick St n/o Alessandro Blvd	4D	37,500	C	17,200	0.46	A
19. Frederick St s/o Alessandro Blvd	4D	37,500	D	8,500	0.23	A
20. Heacock St n/o Alessandro Blvd	4D	37,500	D	18,500	0.49	A
21. Heacock St s/o Alessandro Blvd	4D	37,500	D	16,000	0.43	A
22. Perris St n/o Alessandro Blvd	4D	37,500	D	27,300	0.73	C
23. Perris St s/o Alessandro Blvd	4D	37,500	D	24,800	0.66	B
24. Perris St n/o Cactus Ave	4D	37,500	D	24,800	0.66	B
25. Perris St s/o Cactus Ave	4D	37,500	D	23,600	0.63	B
26. Perris St s/o Iris Ave	6D	56,300	D	25,900	0.46	A
27. Lasselle St n/o Alessandro Blvd	2D	12,500	D	10,100	0.81	D
28. Lasselle St s/o Alessandro Blvd	4D	37,500	D	12,100	0.32	A
29. Morrison St n/o Alessandro Blvd	4D	37,500	C	1,200	0.03	A
30. Morrison St s/o Alessandro Blvd (future)	--	--	D	N/A	N/A	N/A
31. Nason St n/o Alessandro Blvd	2D	12,500	C	9,000	0.72	C
32. Nason St s/o Alessandro Blvd	4D	37,500	D	10,600	0.28	A
33. Moreno Beach Dr n/o Alessandro Blvd	2D	12,500	D	14,900	**1.19**	**F**
34. Moreno Beach Dr s/o Alessandro Blvd	2D	12,500	D	14,000	**1.12**	**F**

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

As shown in Table 6, the study roadway segments are operating at an acceptable LOS according to the City of Moreno Valley performance criteria with the exception of the following four study roadway segments:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

FORECAST EXISTING WITH PROJECT CONDITIONS ANALYSIS

This section analyzes operations of the circulation system with the addition of trips forecast to be generated by the proposed project to existing conditions.

Forecast Existing With Project Conditions Traffic Volumes

Forecast existing with project conditions traffic volumes were derived by adding trips forecast to be generated by the proposed project to existing conditions traffic volumes. Exhibit 8 shows forecast existing with project conditions ADT volumes at the study roadways.

Forecast Existing With Project Conditions Roadway Segment LOS

Table 7 summarizes forecast existing with project conditions roadway segment ADT volumes and corresponding LOS.

Table 7
Forecast Existing With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	Existing With Project ADT	V/C Ratio	LOS
1. Alessandro Blvd btwn Old 215 Frontage Rd & Day St	6D	56,300	D	N/A	N/A	N/A
2. Alessandro Blvd btwn Day St & Elsworth St	5D	46,875	D	37,744	0.81	D
3. Alessandro Blvd btwn Elsworth St & Frederick St	6D	56,300	D	34,886	0.62	B
4. Alessandro Blvd btwn Frederick St Graham St	5D	46,875	D	40,930	0.87	D
5. Alessandro Blvd btwn Graham St & Heacock St	5D	46,875	D	36,430	0.78	C
6. Alessandro Blvd btwn Heacock St & Indian St	6D	56,300	D	31,892	0.57	A
7. Alessandro Blvd btwn Indian St & Perris St	6D	56,300	D	24,892	0.44	A
8. Alessandro Blvd btwn Perris St & Kitching St	4D	37,500	D	23,296	0.62	B
9. Alessandro Blvd btwn Kitching St & Lasselle St	2D	12,500	D	21,796	**1.74**	**F**
10. Alessandro Blvd btwn Lasselle St & Morrison St	2D	12,500	D	14,112	**1.13**	**F**
11. Alessandro Blvd btwn Morrison St & Nason St	2D	12,500	D	9,786	0.78	C
12. Alessandro Blvd btwn Nason St & Oliver St	2D	12,500	C	8,974	0.72	C
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	2D	12,500	C	10,374	**0.83**	**D**
14. Alessandro Blvd btwn Moreno Beach Dr & Quincy St	2D	12,500	C	8,006	0.64	B
15. Cactus Ave w/o Perris St	4D	37,500	C	22,844	0.61	B
16. Cactus Ave e/o Perris St	4D	37,500	C	21,742	0.58	A
17. Day St n/o Alessandro Blvd	2D	12,500	D	8,412	0.67	B
18. Frederick St n/o Alessandro Blvd	4D	37,500	C	20,846	0.56	A
19. Frederick St s/o Alessandro Blvd	4D	37,500	D	9,164	0.24	A
20. Heacock St n/o Alessandro Blvd	4D	37,500	D	18,560	0.49	A
21. Heacock St s/o Alessandro Blvd	4D	37,500	D	16,010	0.43	A
22. Perris St n/o Alessandro Blvd	4D	37,500	D	31,526	0.84	D
23. Perris St s/o Alessandro Blvd	4D	37,500	D	32,328	0.86	D
24. Perris St n/o Cactus Ave	4D	37,500	D	32,328	0.86	D
25. Perris St s/o Cactus Ave	4D	37,500	D	34,644	**0.92**	**E**
26. Perris St s/o Iris Ave	6D	56,300	D	29,450	0.52	A
27. Lasselle St n/o Alessandro Blvd	2D	12,500	D	14,712	**1.18**	**F**
28. Lasselle St s/o Alessandro Blvd	4D	37,500	D	14,992	0.40	A
29. Morrison St n/o Alessandro Blvd	4D	37,500	C	12,226	0.33	A
30. Morrison St s/o Alessandro Blvd (future)	--	--	D	N/A	N/A	N/A
31. Nason St n/o Alessandro Blvd	2D	12,500	C	17,490	**1.40**	**F**
32. Nason St s/o Alessandro Blvd	4D	37,500	D	13,026	0.35	A
33. Moreno Beach Dr n/o Alessandro Blvd	2D	12,500	D	14,900	**1.19**	**F**
34. Moreno Beach Dr s/o Alessandro Blvd	2D	12,500	D	14,682	**1.17**	**F**

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

As shown in Table 7, with the addition of project-generated trips, the following eight (8) roadway segments are forecast to operate at a deficient LOS according to the City of Moreno Valley performance criteria for forecast existing with project conditions:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Lasselle Street and Morrison Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Perris Street south of Cactus Avenue;
- Lasselle Street north of Alessandro Boulevard;
- Nason Street north of Alessandro Boulevard;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

Forecast Existing With Project Conditions Mitigation Measures

Proportionate contribution to the following mitigation measures are identified to fully reduce the forecast traffic impacts to a less than significant level at the deficient study roadway segments for forecast existing with project conditions:

Mitigation Measure #1 **Alessandro Boulevard between Kitching Street and Lasselle Street –** Widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #2 **Alessandro Boulevard between Lasselle Street and Morrison Street –** Widen/restripe Alessandro Boulevard between Lasselle Street and Morrison Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #3 **Alessandro Boulevard between Oliver Street and Moreno Beach Drive –** Widen/restripe Alessandro Boulevard between Oliver Street and Moreno Beach Drive from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #4 **Perris Street south of Cactus Avenue –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Perris Street south of Cactus Avenue from a four-lane divided roadway to a six-lane Divided Major Arterial.

Mitigation Measure #5 **Lasselle Street north of Alessandro Boulevard –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Lasselle Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial.

Mitigation Measure #6 **Nason Street north of Alessandro Boulevard –** Widen/restripe Nason Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Modified Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #7 **Moreno Beach Drive north of Alessandro Boulevard –** Widen/restripe Moreno Beach drive north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #8 **Moreno Beach Drive south of Alessandro Boulevard –** Widen/restripe Moreno Beach drive south of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Exhibit 9 shows the mitigated forecast existing with project conditions roadway segment geometry assuming implementation of the mitigation measures.

Mitigated Forecast Existing With Project Conditions Roadway Segment LOS

Table 8 summarizes mitigated forecast existing with project conditions roadway segment ADT volumes and corresponding LOS at affected locations assuming implementation of the roadway segment mitigation measures.

Table 8
Mitigated Forecast Existing With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Mitigated Roadway Geometry	Mitigated LOS E Capacity	Acceptable LOS	Existing With Project ADT	V/C Ratio	LOS
9. Alessandro Blvd btwn Kitching St & Lasselle St	4D	37,500	D	21,796	0.58	A
10. Alessandro Blvd btwn Lasselle St & Morrison St	4D	37,500	D	14,112	0.38	A
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	4D	37,500	C	10,374	0.28	A
25. Perris St s/o Cactus Ave	6D	56,300	D	34,644	0.62	B
27. Lasselle St n/o Alessandro Blvd	4D	37,500	D	14,712	0.39	A
31. Nason St n/o Alessandro Blvd	4D	37,500	C	17,490	0.47	A
33. Moreno Beach Dr n/o Alessandro Blvd	4D	37,500	D	14,900	0.40	A
34. Moreno Beach Dr s/o Alessandro Blvd	4D	37,500	D	14,682	0.39	A

Notes: n/o = north of; s/o = south of; btwn = between; Deficient operation shown in **bold.**

As shown in Table 8, assuming implementation of the roadway segment mitigation measures, the study roadway segments are forecast to operate at an acceptable LOS according to City of Moreno Valley performance criteria for mitigated forecast existing with project conditions.

FORECAST GENERAL PLAN BUILDOUT WITHOUT PROJECT CONDITIONS ANALYSIS

This section analyzes operations of the circulation system for forecast General Plan without project conditions.

Forecast General Plan Without Project Conditions Peak Hour Traffic Volumes

To determine forecast General Plan Buildout conditions operation of the study roadways, City of Moreno Valley staff provided General Plan Buildout average daily traffic (ADT) volumes for the study roadway segments.

Exhibit 10 shows forecast General Plan Buildout without project conditions ADT volumes at the study roadways.

This traffic analysis assumes implementation of the General Plan Circulation Element roadway designations listed below:

- Improvement of Day Street north and south of Alessandro Boulevard from a two-lane Industrial Collector to a four-lane Divided Arterial;
- Improvement of Perris Street north and south of Alessandro Boulevard from a four-lane Divided Arterial to a six-lane Divided Major Arterial;
- Improvement of Perris Street north and south of Cactus Avenue from a four-lane Divided Arterial to a six-lane Divided Major Arterial;

- Improvement of Lasselle Street north of Alessandro Boulevard from a two-lane Industrial Collector to a four-lane Divided Arterial;
- Construction of Morrison Street south of Alessandro Boulevard as a four-lane divided Arterial;
- Improvement of Nason Street north of Alessandro Boulevard from a two-lane Industrial Collector to a six-lane Modified Divided Major Arterial;
- Improvement of Nason Street south of Alessandro Boulevard from a four-lane Divided Arterial to a six-lane Modified Divided Major Arterial;
- Improvement of Moreno Beach Drive north and south of Alessandro Boulevard from a two-lane Industrial Collector to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between I-215 and Old 215 Frontage Road from a four-lane Divided Arterial to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Day Street and Elsworth Street from a five-lane divided roadway to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Frederick Street and Heacock Street from a five-lane divided roadway to a six-lane Divided Major Arterial;
- Improvement of Alessandro Boulevard between Perris Street and Kitching Street from a four-lane Divided Arterial to a six-lane Divided Major Arterial; and
- Improvement of Alessandro Boulevard Kitching Street and Quincy Street from a two-lane Industrial Collector to a six-lane Divided Major Arterial.

Exhibit 11 shows forecast General Plan Buildout without project conditions roadway segment geometry.

Forecast General Plan Buildout Without Project Conditions Roadway Segment LOS

Table 9 summarizes forecast General Plan Buildout without project conditions roadway segment ADT volumes and corresponding LOS.

Table 9
Forecast General Plan Buildout Without Project Conditions
Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	GP Without Project ADT	V/C Ratio	LOS
1. Alessandro Blvd btwn Old 215 Frontage Rd & Day St	6D	56,300	D	52,800	**0.94**	**E**
2. Alessandro Blvd btwn Day St & Elsworth St	6D	56,300	D	48,000	0.85	D
3. Alessandro Blvd btwn Elsworth St & Frederick St	6D	56,300	D	46,900	0.83	D
4. Alessandro Blvd btwn Frederick St Graham St	6D	56,300	D	48,900	0.87	D
5. Alessandro Blvd btwn Graham St & Heacock St	6D	56,300	D	40,100	0.71	C
6. Alessandro Blvd btwn Heacock St & Indian St	6D	56,300	D	26,200	0.47	A
7. Alessandro Blvd btwn Indian St & Perris St	6D	56,300	D	31,100	0.55	A
8. Alessandro Blvd btwn Perris St & Kitching St	6D	56,300	D	30,300	0.54	A
9. Alessandro Blvd btwn Kitching St & Lasselle St	6D	56,300	D	25,300	0.45	A
10. Alessandro Blvd btwn Lasselle St & Morrison St	6D	56,300	D	17,700	0.31	A
11. Alessandro Blvd btwn Morrison St & Nason St	6D	56,300	D	16,600	0.29	A
12. Alessandro Blvd btwn Nason St & Oliver St	6D	56,300	C	20,200	0.36	A
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	6D	56,300	C	21,600	0.38	A
14. Alessandro Blvd btwn Moreno Beach Dr & Quincy St	6D	56,300	C	17,900	0.32	A
15. Cactus Ave w/o Perris St	4D	37,500	C	23,200	0.62	B
16. Cactus Ave e/o Perris St	4D	37,500	C	26,700	0.71	C
17. Day St n/o Alessandro Blvd	4D	37,500	D	29,700	0.79	C
18. Frederick St n/o Alessandro Blvd	4D	37,500	C	15,300	0.41	A
19. Frederick St s/o Alessandro Blvd	4D	37,500	D	4,300	0.11	A
20. Heacock St n/o Alessandro Blvd	4D	37,500	D	35,900	**0.96**	**E**
21. Heacock St s/o Alessandro Blvd	4D	37,500	D	35,000	**0.93**	**E**
22. Perris St n/o Alessandro Blvd	6D	56,300	D	30,700	0.55	A
23. Perris St s/o Alessandro Blvd	6D	56,300	D	30,900	0.55	A
24. Perris St n/o Cactus Ave	6D	56,300	D	30,900	0.55	A
25. Perris St s/o Cactus Ave	6D	56,300	D	29,700	0.53	A
26. Perris St s/o Iris Ave	6D	56,300	D	31,300	0.56	A
27. Lasselle St n/o Alessandro Blvd	4D	37,500	D	19,000	0.51	A
28. Lasselle St s/o Alessandro Blvd	4D	37,500	D	11,700	0.31	A
29. Morrison St n/o Alessandro Blvd	4D	37,500	C	17,200	0.46	A
30. Morrison St s/o Alessandro Blvd (future)	4D	37,500	D	23,400	0.62	B
31. Nason St n/o Alessandro Blvd	6D	56,300	C	32,700	0.58	A
32. Nason St s/o Alessandro Blvd	6D	56,300	D	28,900	0.51	A
33. Moreno Beach Dr n/o Alessandro Blvd	6D	56,300	D	19,800	0.35	A
34. Moreno Beach Dr s/o Alessandro Blvd	6D	56,300	D	20,600	0.37	A

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

As shown in Table 9, the following three (3) roadway segments are forecast to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout without project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

FORECAST GENERAL PLAN BUILDOUT WITH PROJECT CONDITIONS ANALYSIS

Forecast General Plan Buildout With Project Conditions Traffic Volumes

Forecast General Plan Buildout with project conditions traffic volumes were derived by adding trips forecast to be generated by the proposed project to forecast General Plan Buildout without project conditions traffic volumes. Exhibit 12 shows forecast General Plan Buildout with project conditions ADT volumes at the study roadways.

Forecast General Plan Buildout With Project Conditions Roadway Segment LOS

Table 10 summarizes forecast General Plan Buildout with project conditions roadway segment ADT volumes and corresponding LOS.

Table 10
Forecast General Plan Buildout With Project Conditions Roadway Segment ADT & LOS

Study Roadway Segment	Roadway Geometry	LOS E Capacity	Acceptable LOS	GP With Project ADT	V/C Ratio	LOS
1. Alessandro Blvd btwn Old 215 Frontage Rd & Day St	6D	56,300	D	54,332	**0.97**	**E**
2. Alessandro Blvd btwn Day St & Elsworth St	6D	56,300	D	50,144	0.89	D
3. Alessandro Blvd btwn Elsworth St & Frederick St	6D	56,300	D	50,486	0.90	D
4. Alessandro Blvd btwn Frederick St Graham St	6D	56,300	D	50,830	0.90	D
5. Alessandro Blvd btwn Graham St & Heacock St	6D	56,300	D	42,030	0.75	C
6. Alessandro Blvd btwn Heacock St & Indian St	6D	56,300	D	28,092	0.50	A
7. Alessandro Blvd btwn Indian St & Perris St	6D	56,300	D	32,992	0.59	A
8. Alessandro Blvd btwn Perris St & Kitching St	6D	56,300	D	33,920	0.60	A
9. Alessandro Blvd btwn Kitching St & Lasselle St	6D	56,300	D	28,920	0.51	A
10. Alessandro Blvd btwn Lasselle St & Morrison St	6D	56,300	D	20,662	0.37	A
11. Alessandro Blvd btwn Morrison St & Nason St	6D	56,300	D	17,986	0.32	A
12. Alessandro Blvd btwn Nason St & Oliver St	6D	56,300	C	20,374	0.36	A
13. Alessandro Blvd btwn Oliver St & Moreno Beach Dr	6D	56,300	C	21,774	0.39	A
14. Alessandro Blvd btwn Moreno Beach Dr & Quincy St	6D	56,300	C	18,756	0.33	A
15. Cactus Ave w/o Perris St	4D	37,500	C	28,044	0.75	C
16. Cactus Ave e/o Perris St	4D	37,500	C	29,818	0.80	C
17. Day St n/o Alessandro Blvd	4D	37,500	D	29,512	0.79	C
18. Frederick St n/o Alessandro Blvd	4D	37,500	C	18,946	0.51	A
19. Frederick St s/o Alessandro Blvd	4D	37,500	D	4,964	0.13	A
20. Heacock St n/o Alessandro Blvd	4D	37,500	D	35,960	**0.96**	**E**
21. Heacock St s/o Alessandro Blvd	4D	37,500	D	35,010	**0.93**	**E**
22. Perris St n/o Alessandro Blvd	6D	56,300	D	34,926	0.62	B
23. Perris St s/o Alessandro Blvd	6D	56,300	D	36,854	0.65	B
24. Perris St n/o Cactus Ave	6D	56,300	D	36,854	0.65	B
25. Perris St s/o Cactus Ave	6D	56,300	D	40,744	0.72	C
26. Perris St s/o Iris Ave	6D	56,300	D	34,850	0.62	B
27. Lasselle St n/o Alessandro Blvd	4D	37,500	D	23,612	0.63	B
28. Lasselle St s/o Alessandro Blvd	4D	37,500	D	13,018	0.35	A
29. Morrison St n/o Alessandro Blvd	4D	37,500	C	28,226	0.75	C
30. Morrison St s/o Alessandro Blvd (future)	4D	37,500	D	26,550	0.71	C
31. Nason St n/o Alessandro Blvd	6D	56,300	C	41,190	0.73	C
32. Nason St s/o Alessandro Blvd	6D	56,300	D	31,326	0.56	A
33. Moreno Beach Dr n/o Alessandro Blvd	6D	56,300	D	19,800	0.35	A
34. Moreno Beach Dr s/o Alessandro Blvd	6D	56,300	D	21,282	0.38	A

Notes: n/o = north of; s/o = south of; e/o = east of; w/o = west of; btwn = between; Deficient operation shown in **bold.**
N/A = Not Available.

As shown in Table 10, with the addition of project-generated trips, the following three (3) roadway segments are forecast to continue to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout with project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

The three deficient roadway segments identified above were already identified as significantly unavoidable impacts in the General Plan EIR, and Statements of Overriding Consideration were adopted. The proposed project does not generate any new significant impacts beyond those already analyzed in the General Plan EIR, nor does the proposed project generate any impacts that exceed significance threshold criteria.

Forecast General Plan Buildout With Project Conditions Mitigation Measures

Proportionate contribution to the following mitigation measures are identified to ensure that the forecast traffic impacts at the deficient roadway segments remain at or below the LOS shown in the operations table for forecast General Plan Buildout with project conditions:

Mitigation Measure #9 **Implement Project-Specific Transportation Demand Management Program –** As development occurs within the entire Traffic Impact Analysis study area, project applicants shall demonstrate, subject to the City's approval, implementation of transportation demand management (TDM) measures to reduce daily and peak hour traffic generation by a minimum of ten (10) percent. TDM measures may include but are not limited to financial contribution to creation and operation of a local shuttle to link land uses with park-and-ride lots and transit facilities (regional bus stations, Metrolink or other Transportation Center, etc.), ridesharing, bike/transit integration, cycling improvements, improved bike/pedestrian facilities, increased park-and-ride, telework, and alternative work schedules, etc.

Mitigation Measure #10 **Arterial Segment Analysis –** Conduct studies of specific arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan Buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of

specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan Buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations.

(Source: General Plan EIR, Mitigation Measure TRF-1)

Since implementation of the two mitigation measures listed above are expected to reduce project-related impacts, and since no new significant unavoidable impacts are identified, no additional mitigation measures are required.

CONGESTION MANAGEMENT PROGRAM ANALYSIS

The Congestion Management Program (CMP) was established in 1990 under Proposition 111. The intent of the CMP is to more directly link land use, transportation and air quality thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) for Riverside County, and holds responsibility for the development and implementation of the Riverside County CMP. The CMP identifies a network of roadways that serve as regional linkages between Riverside County cities and adjacent counties. Local agencies are required to monitor how new development projects will impact the CMP network. Should a new development project cause a location on the CMP network to fall below a Level of Service (LOS) F, the local agency must prepare a deficiency plan that would outline specific mitigation measures and a schedule for mitigating the deficiency.

Since the City LOS standard is LOS C, or LOS D, and is higher than the designated CMP standards for Riverside County, the City LOS standards govern, and no CMP impact is forecast to occur.

MITIGATION MEASURE IMPLEMENTATION

The County of Riverside requires transportation and general infrastructure fees paid at the time a certificate of occupancy is used for the proposed project or upon final inspection, whichever comes first. As applicable for each project, the City will clarify the need for payment towards the *Riverside County Transportation Uniform Mitigation Fee (TUMF) Program* (per Ordinance Number 824) and/or towards other applicable fee programs such as the City Development Impact Fee Program (DIF). The City DIF address local transportation improvements such as arterial streets, traffic signals, and interchange improvements, while TUMF fees are set by the Western Riverside Council of Governments and address regional transportation improvements.

MITIGATION MEASURES

Proportionate contribution to the following mitigation measures are identified to fully reduce the forecast traffic impacts to a less than significant level at the deficient study roadway segments for forecast existing with project conditions:

Mitigation Measure #1 **Alessandro Boulevard between Kitching Street and Lasselle Street –** Widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #2 **Alessandro Boulevard between Lasselle Street and Morrison Street –** Widen/restripe Alessandro Boulevard between Lasselle Street and Morrison Street from a two-lane divided roadway to a four -lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #3 **Alessandro Boulevard between Oliver Street and Moreno Beach Drive –** Widen/restripe Alessandro Boulevard between Oliver Street and Moreno Beach Drive from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #4 **Perris Street south of Cactus Avenue –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Perris Street south of Cactus Avenue from a four-lane divided roadway to a six-lane Divided Major Arterial.

Mitigation Measure #5 **Lasselle Street north of Alessandro Boulevard –** Consistent with the City of Moreno Valley General Plan Circulation Element, widen/restripe Lasselle Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial.

Mitigation Measure #6 **Nason Street north of Alessandro Boulevard –** Widen/restripe Nason Street north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Modified Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #7 **Moreno Beach Drive north of Alessandro Boulevard –** Widen/restripe Moreno Beach drive north of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Mitigation Measure #8 **Moreno Beach Drive south of Alessandro Boulevard –** Widen/restripe Moreno Beach drive south of Alessandro Boulevard from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

Proportionate contribution to the following mitigation measures are identified to ensure that the forecast traffic impacts at the deficient roadway segments for forecast General Plan Buildout with project conditions remain at or below the LOS in Table 10:

Mitigation Measure #9 **Implement Project-Specific Transportation Demand Management Program –** As development occurs within the entire Traffic Impact Analysis study area, project applicants shall demonstrate, subject to the City's approval, implementation of transportation demand management (TDM) measures to reduce daily and peak hour traffic generation by a minimum of ten (10) percent. TDM measures may include but are not limited to financial contribution to creation and operation of a local shuttle to link land uses with park-and-ride lots and transit facilities

(regional bus stations, Metrolink or other Transportation Center, etc.), ridesharing, bike/transit integration, cycling improvements, improved bike/pedestrian facilities, increased park-and-ride, telework, and alternative work schedules, etc.

Mitigation Measure #10 **Arterial Segment Analysis –** Conduct studies of specific arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan Buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan Buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations.

(Source: General Plan EIR, Mitigation Measure TRF-1)

Since implementation of the two mitigation measures listed above are expected to reduce project-related impacts, and since no new significant unavoidable impacts are identified, no additional mitigation measures are required.

CONCLUSIONS

When accounting for the proposed and displaced land uses, the proposed project is forecast to generate approximately 45,915 net new daily trips, which includes 3,660 net new a.m. peak hour trips and 4,154 net new p.m. peak hour trips.

The study roadway segments are operating at an acceptable LOS according to the City of Moreno Valley performance criteria with the exception of the following four study roadway segments:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

With the addition of project-generated trips, the following eight (8) roadway segments are forecast to operate at a deficient LOS according to the City of Moreno Valley performance criteria for forecast existing with project conditions:

- Alessandro Boulevard between Kitching Street and Lasselle Street;
- Alessandro Boulevard between Lasselle Street and Morrison Street;
- Alessandro Boulevard between Oliver Street and Moreno Beach Drive;
- Perris Street south of Cactus Avenue;
- Lasselle Street north of Alessandro Boulevard;
- Nason Street north of Alessandro Boulevard;
- Moreno Beach Drive north of Alessandro Boulevard; and
- Moreno Beach Drive south of Alessandro Boulevard.

Assuming implementation of the roadway segment mitigation measures, the study roadway segments are forecast to operate at an acceptable LOS according to City of Moreno Valley performance criteria for mitigated forecast existing with project conditions.

The following three (3) roadway segments are forecast to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout without project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

With the addition of project-generated trips, the following three (3) roadway segments are forecast to continue to operate at a deficient LOS according to City of Moreno Valley performance criteria for forecast General Plan Buildout with project conditions:

- Alessandro Boulevard between I-215 Frontage Road and Day Street;
- Heacock Street north of Alessandro Boulevard; and
- Heacock Street south of Alessandro Boulevard.

The three deficient roadway segments identified above were already identified as significantly unavoidable impacts in the General Plan EIR, and Statements of Overriding Consideration were adopted. The proposed project does not generate any new significant impacts beyond those already analyzed in the General Plan EIR, nor does the proposed project generate any impacts that exceed significance threshold criteria.

Since the City LOS standard is LOS C, or LOS D, and is higher than the designated CMP standards for Riverside County, the City LOS standards govern, and no CMP impact is forecast to occur.

Proportionate contribution to the following mitigation measures are identified to fully reduce the forecast traffic impacts to a less than significant level at the deficient study roadway segments for forecast existing with project conditions:

Mitigation Measure #1 **Alessandro Boulevard between Kitching Street and Lasselle Street –** Widen/restripe Alessandro Boulevard between Kitching Street and Lasselle Street from a two-lane divided roadway to a four-lane Divided Arterial. This study roadway segment is classified as a six-lane Divided Major Arterial in the City of Moreno General Plan Circulation Element.

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Proportionate contribution to the following mitigation measures are identified to ensure that the forecast traffic impacts at the deficient roadway segments for forecast General Plan Buildout with project conditions remain at or below the LOS in Table 10:

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(regional bus stations, Metrolink or other Transportation Center, etc.), ridesharing, bike/transit integration, cycling improvements, improved bike/pedestrian facilities, increased park-and-ride, telework, and alternative work schedules, etc.

Mitigation Measure #10 **Arterial Segment Analysis –** Conduct studies of specific arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan Buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan Buildout for at least one of the reasons discussed below:

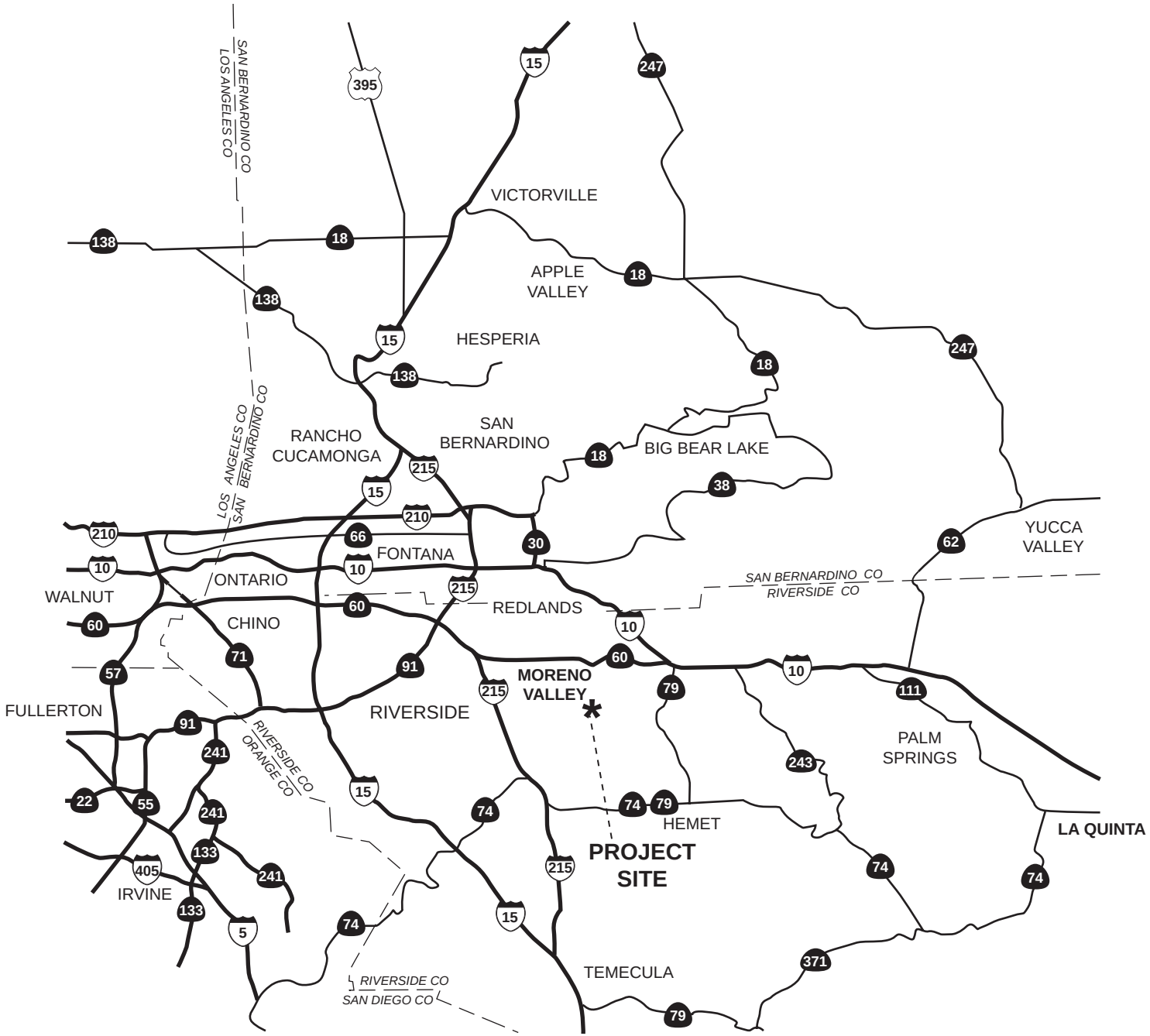
(d) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(e) Segments will need improvements but require inter-jurisdictional coordination.

(f) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations.

(Source: General Plan EIR, Mitigation Measure TRF-1)

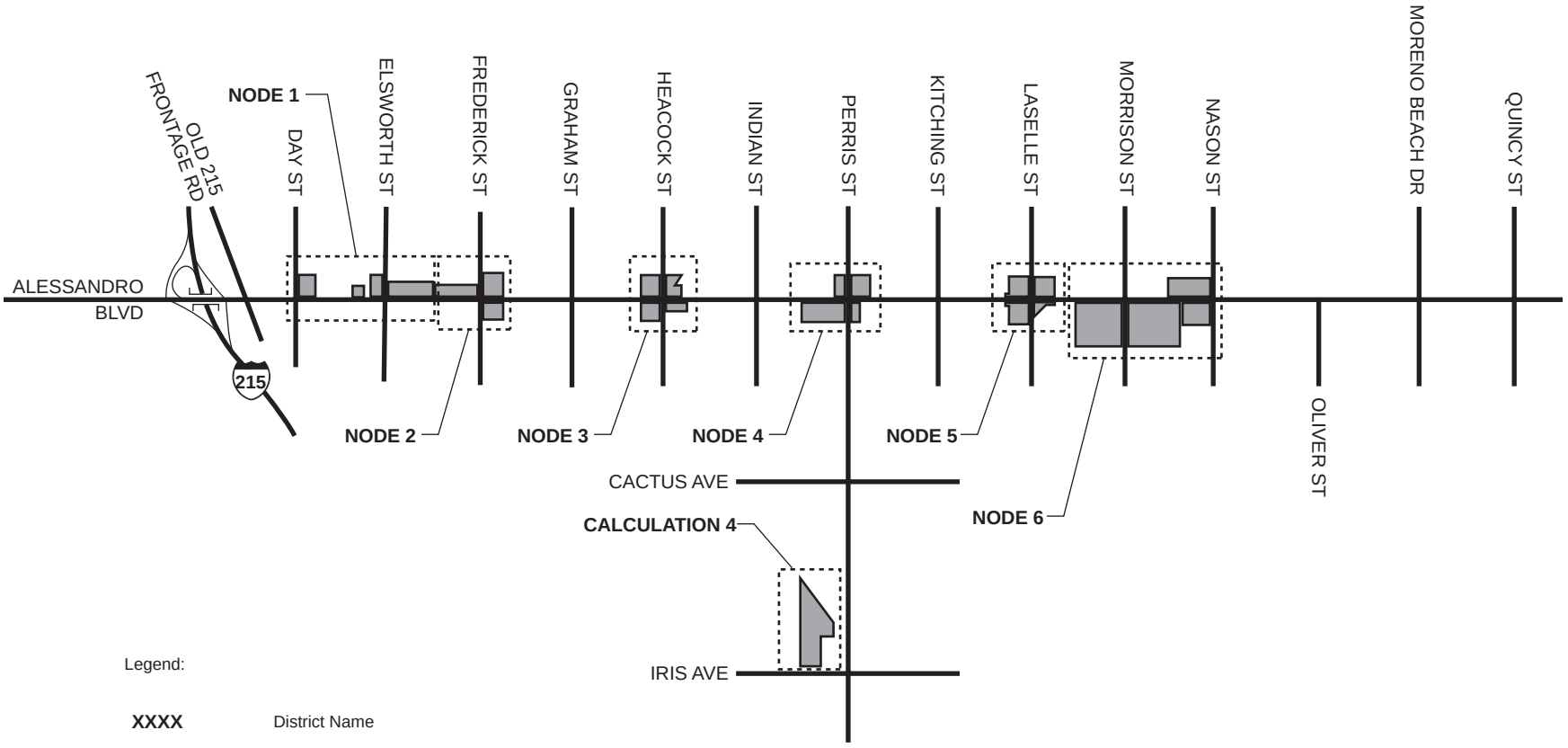
Since implementation of the two mitigation measures listed above are expected to reduce project-related impacts, and since no new significant unavoidable impacts are identified, no additional mitigation measures are required.



Not to Scale

Regional Project Location

Exhibit 1



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Project Location Map & Nodes

Exhibit 2

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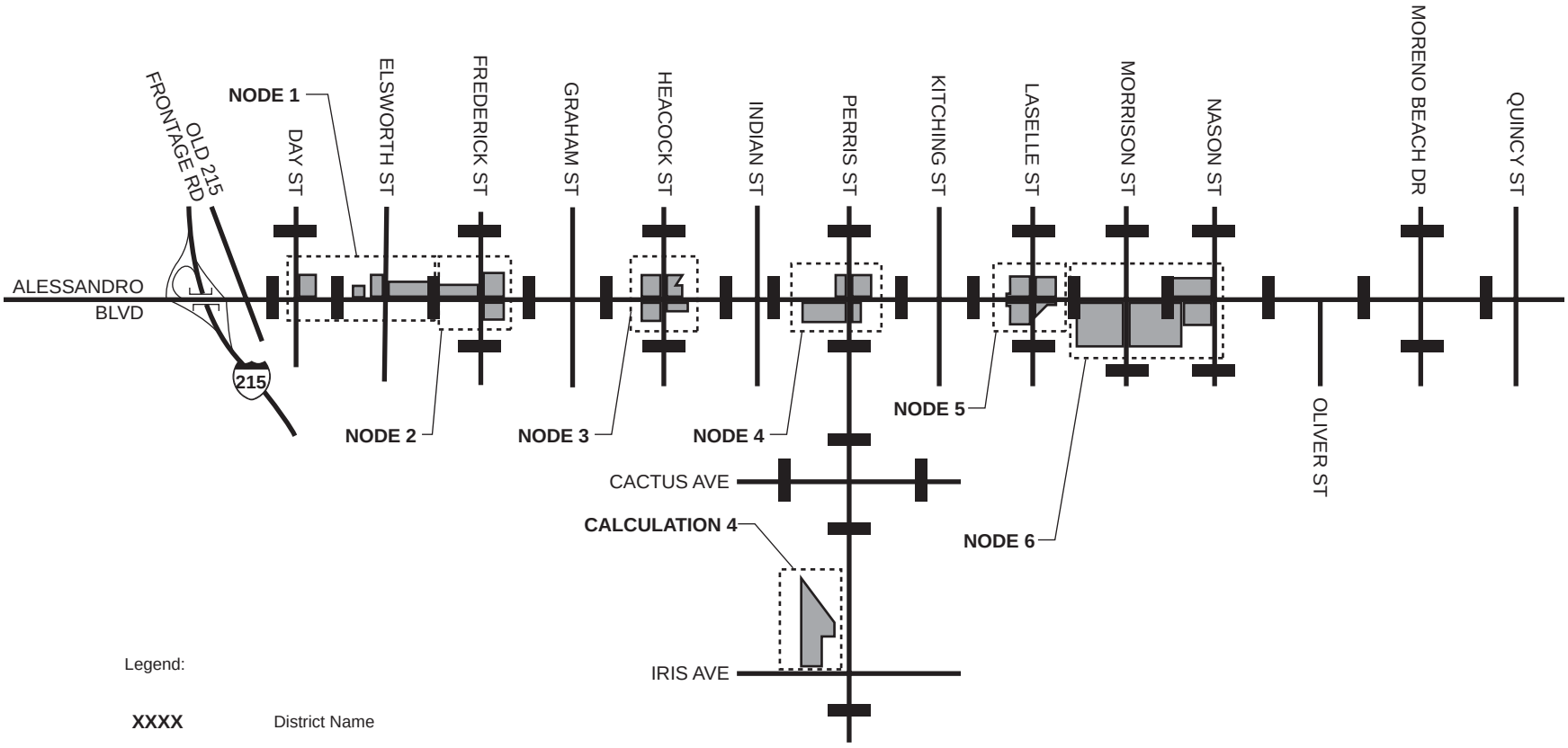

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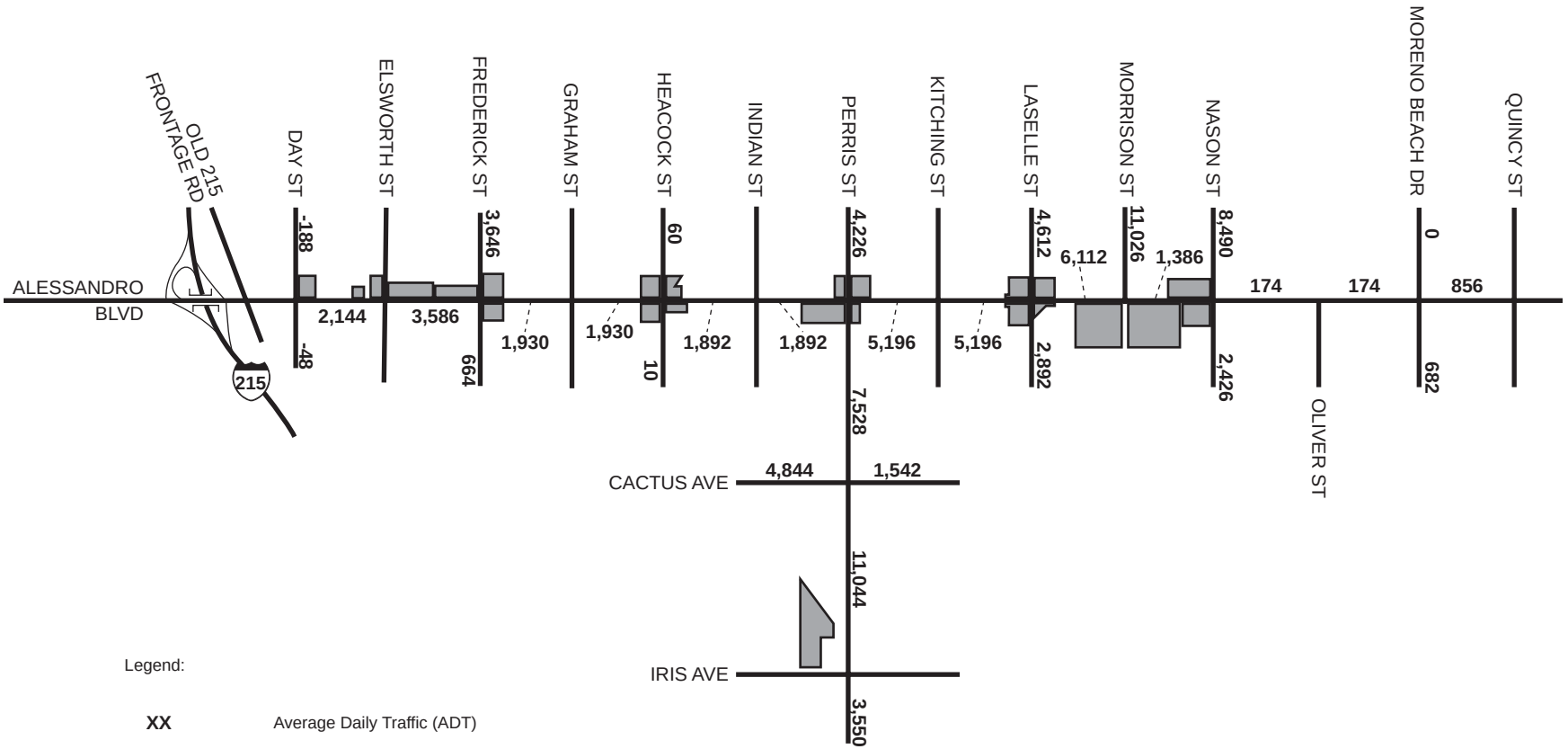
Study Roadway Segment Locations

Exhibit 3



Forecast ADT Trip Assignment of Proposed Project (Existing Circulation System)

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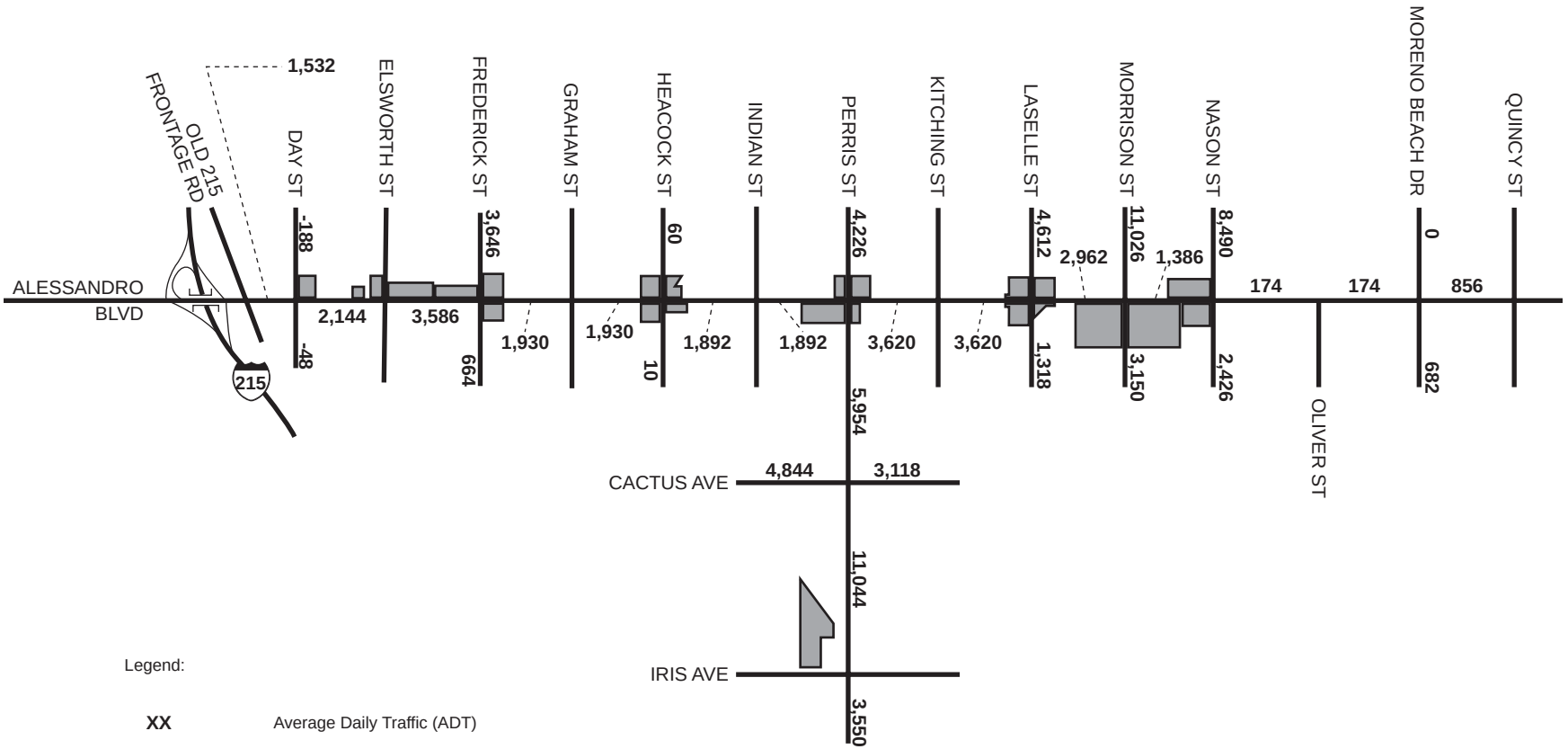
Exhibit 4



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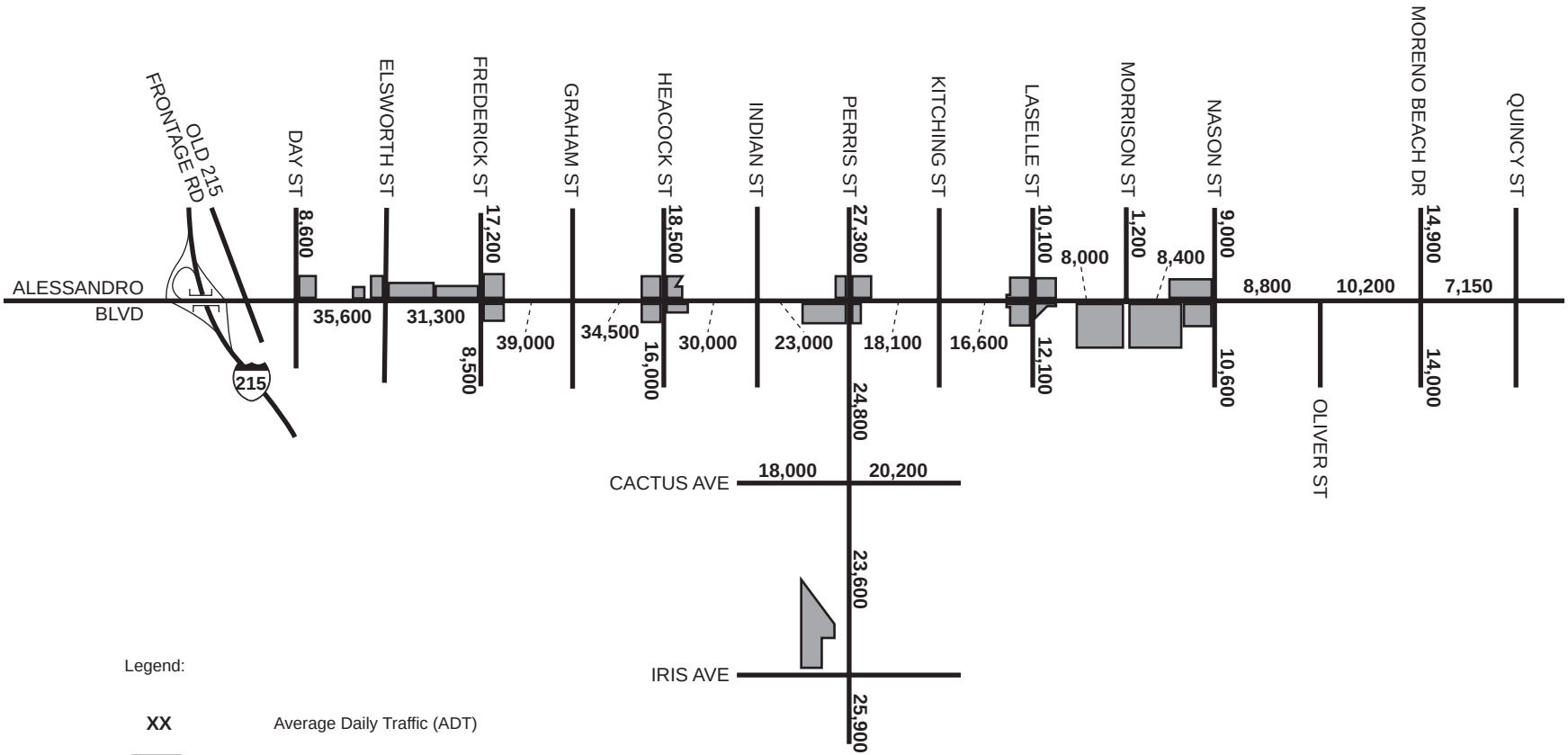
Forecast ADT Trip Assignment of Proposed Project (General Plan Buildout Circulation System)

Exhibit 5



Existing ADT Volumes

Exhibit 6

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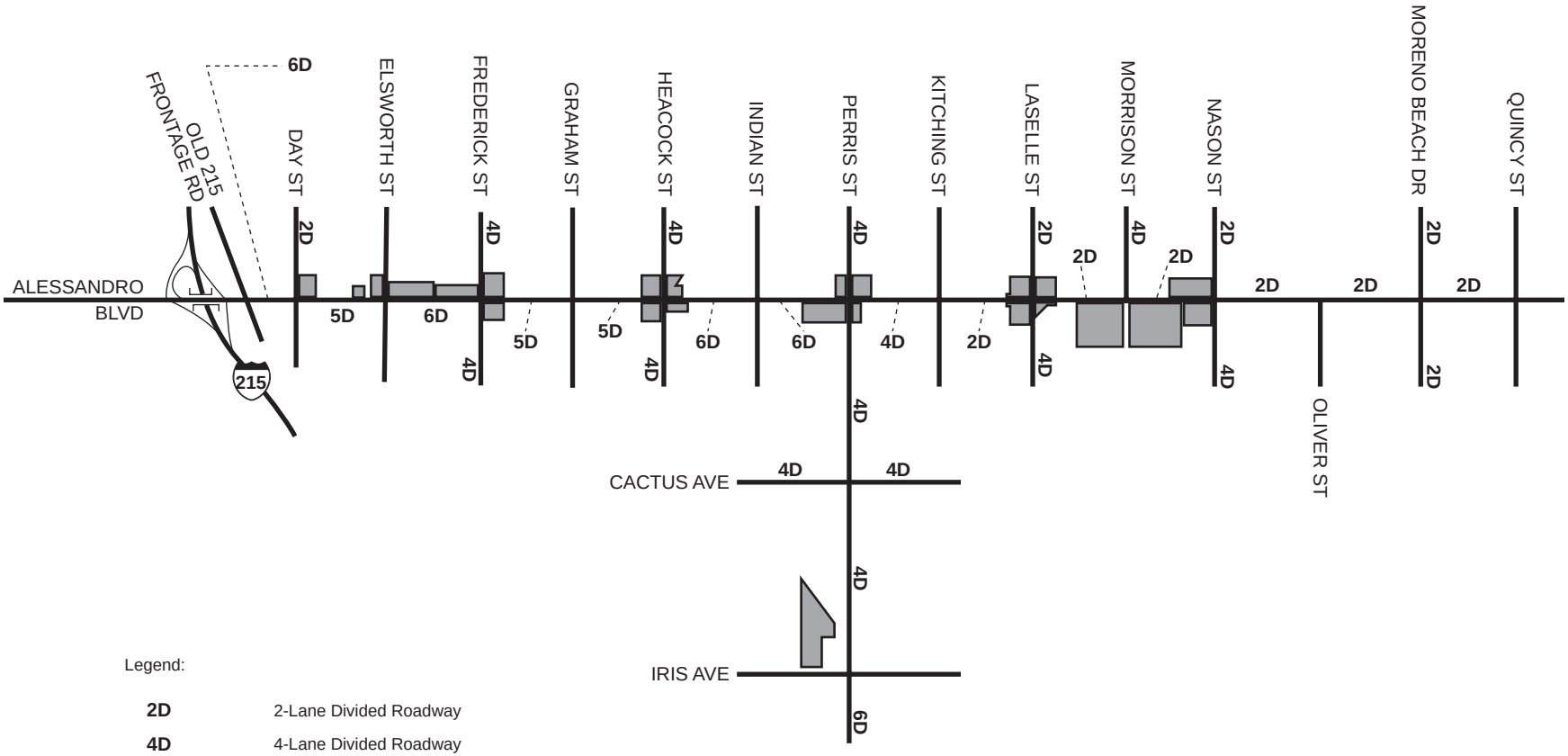

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Existing Conditions Roadway Segment Geometry

Exhibit 7

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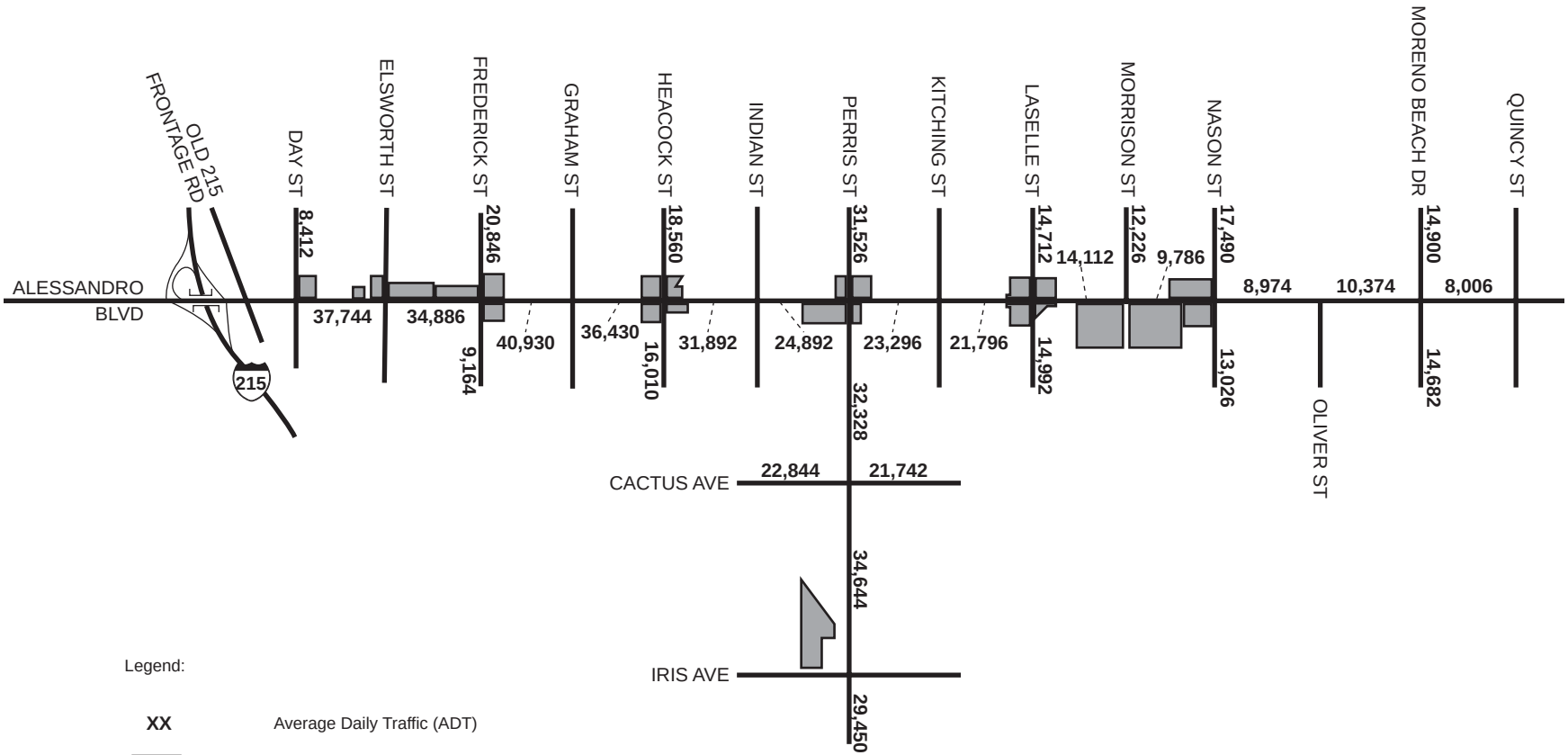

Forecast Existing With Project Conditions ADT Volumes

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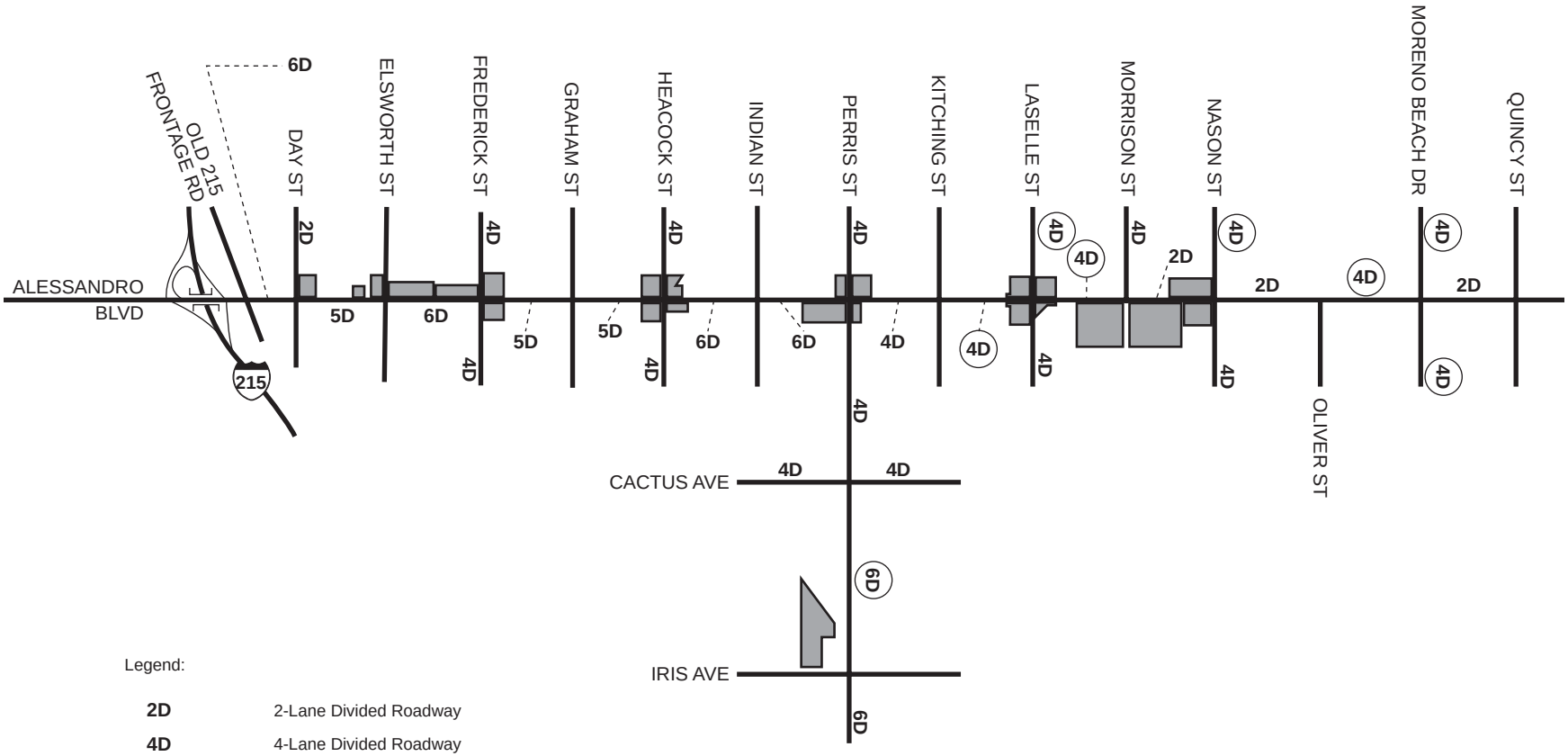
Exhibit 8



Legend:

2D	2-Lane Divided Roadway
4D	4-Lane Divided Roadway
5D	5-Lane Divided Roadway
6D	6-Lane Divided Roadway
XX	Mitigated Roadway Geometry
	Proposed Project Nodes

Not to Scale

Mitigated Forecast Existing With Project Conditions
Roadway Segment Geometry

RBF

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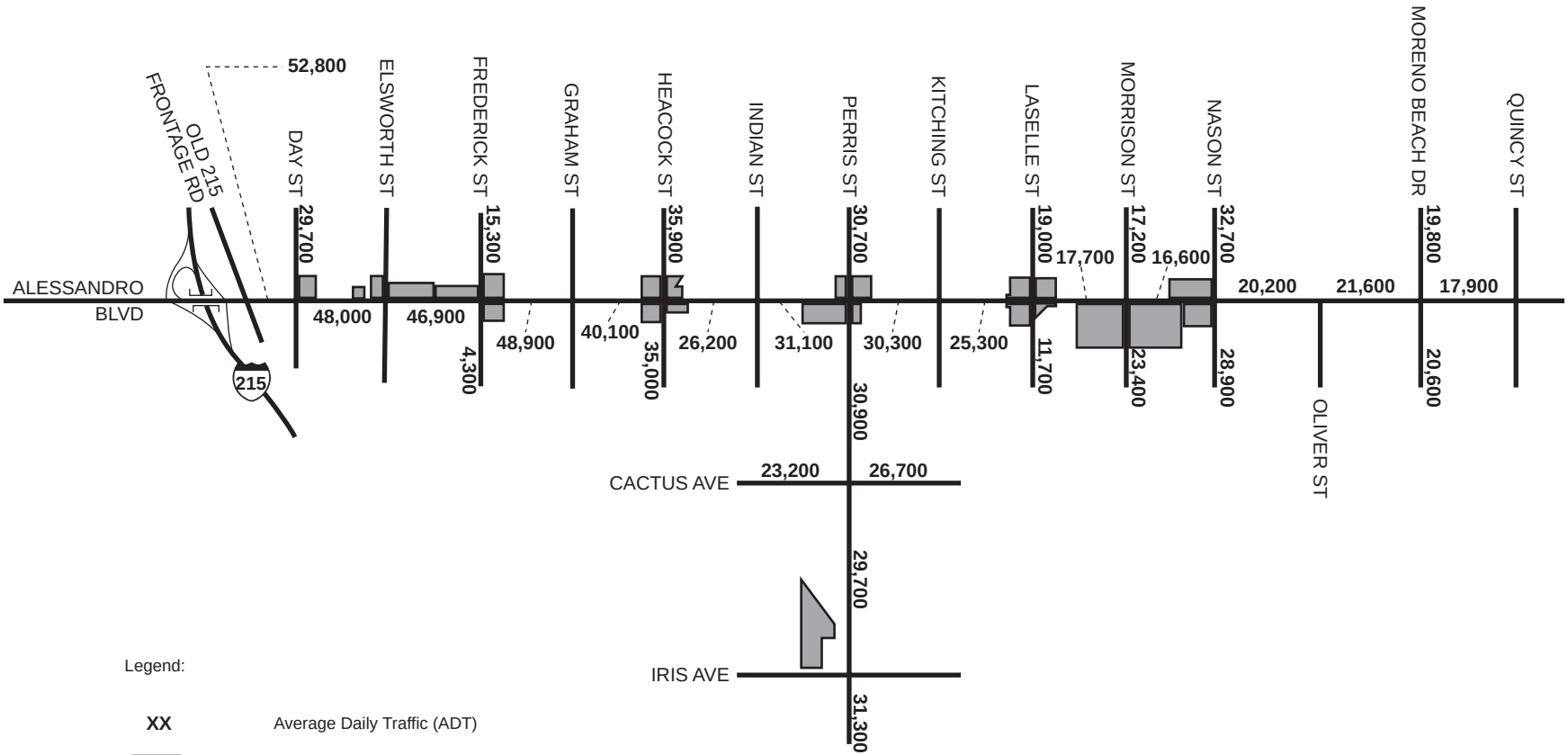
Exhibit 9



Forecast General Plan Buildout Without Project Conditions ADT Volumes

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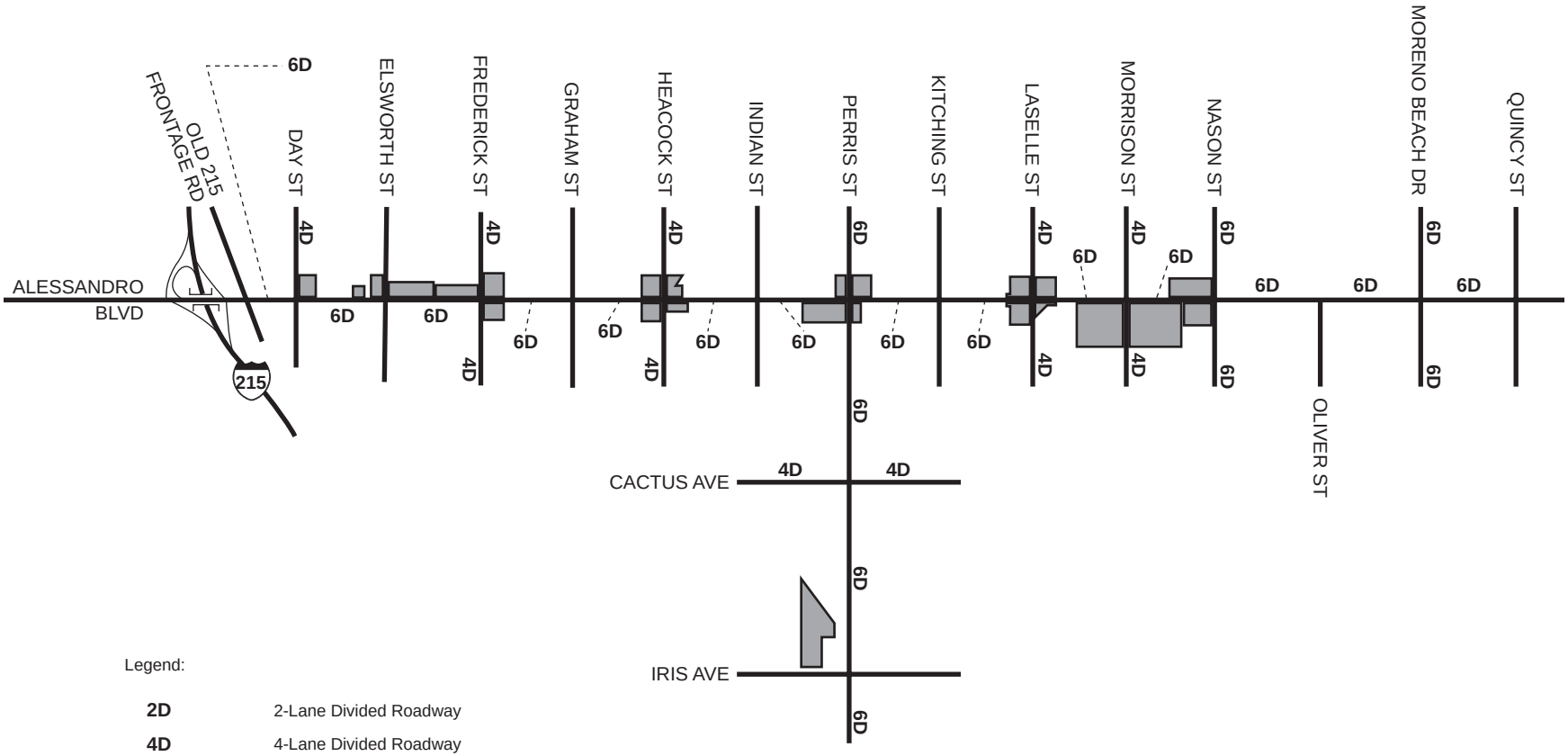
Exhibit 10



Legend:

2D	2-Lane Divided Roadway
4D	4-Lane Divided Roadway
5D	5-Lane Divided Roadway
6D	6-Lane Divided Roadway
	Proposed Project Nodes

Not to Scale

Source: *City of Moreno Valley General Plan Circulation Element (July, 11 2006)*

General Plan Buildout Conditions Roadway Segment Geometry

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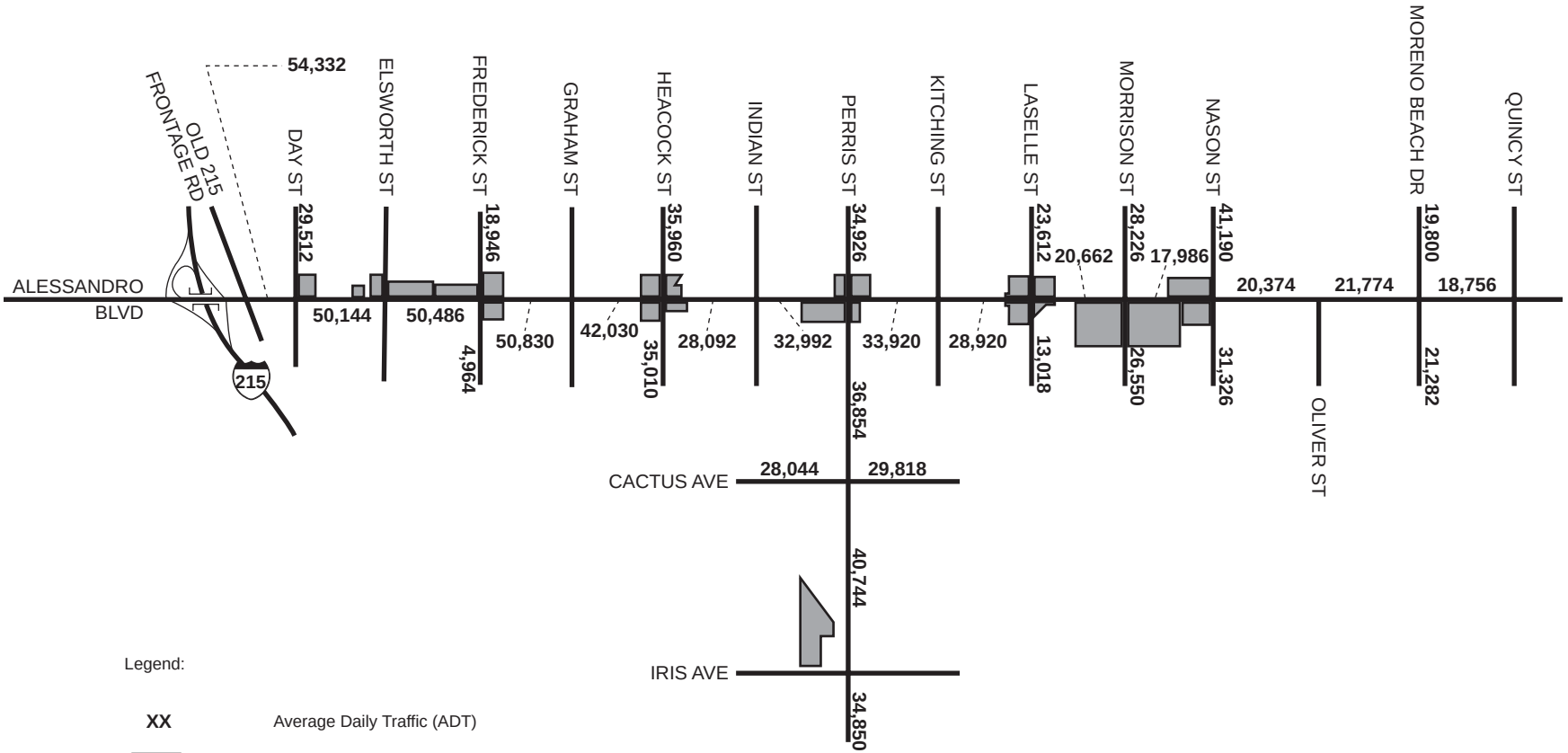
Exhibit 11



Forecast General Plan Buildout With Project Conditions ADT Volumes

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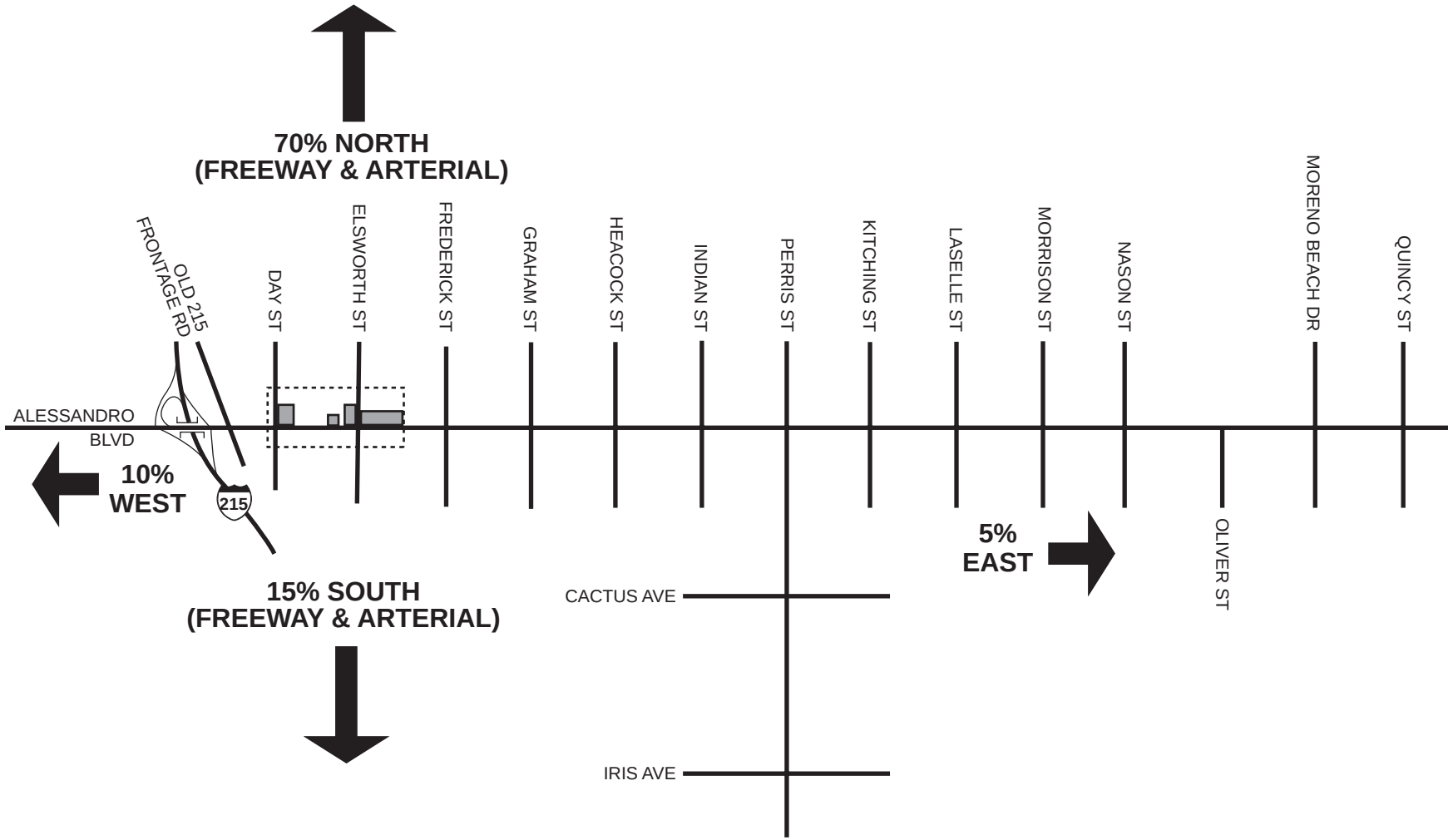
Exhibit 12

APPENDIX A
Trip Distribution Graphics by Node



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Node 1 Forecast Trip Percent Distribution

Attachment A

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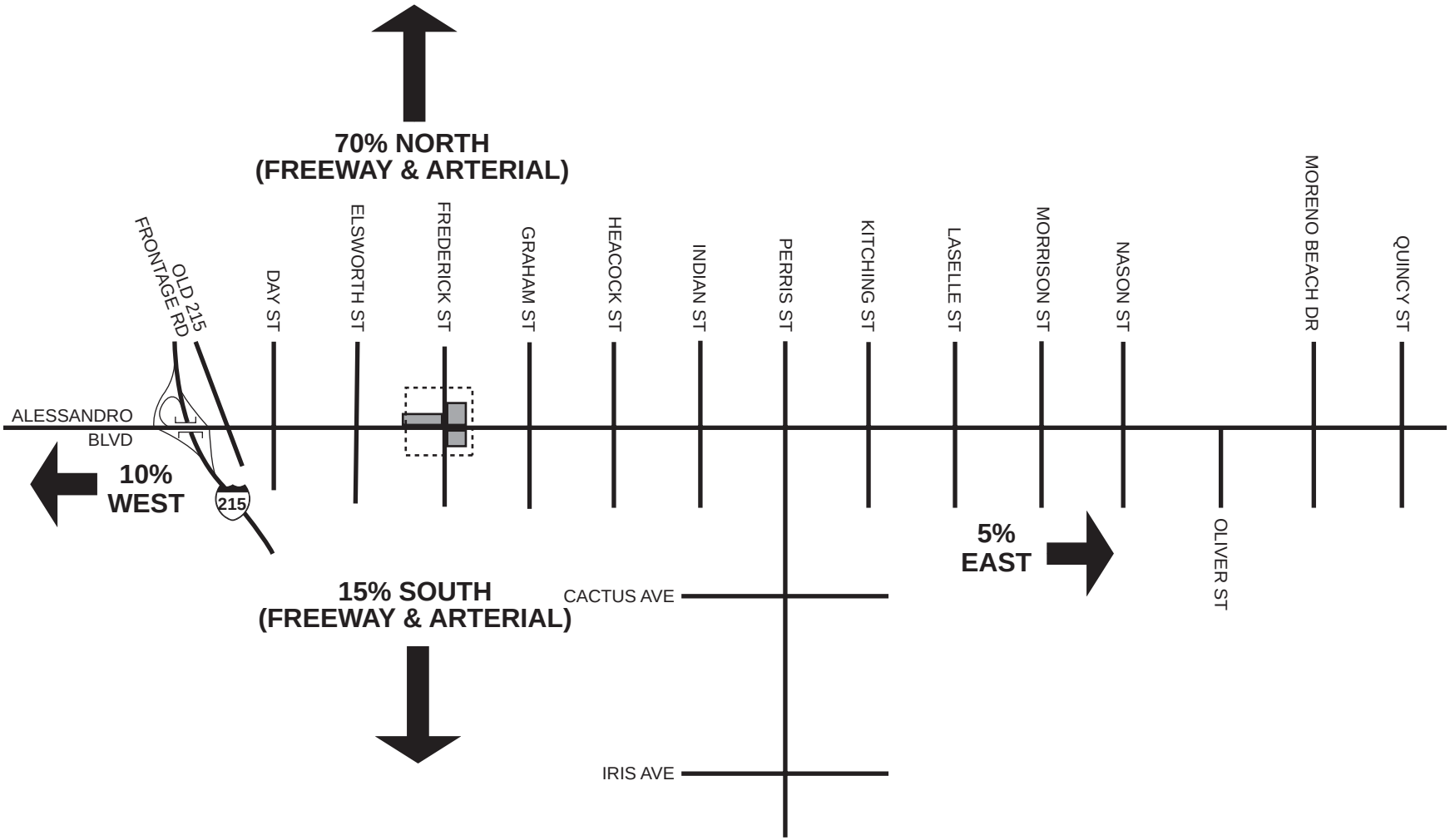

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Node 2 Forecast Trip Percent Distribution

Attachment B

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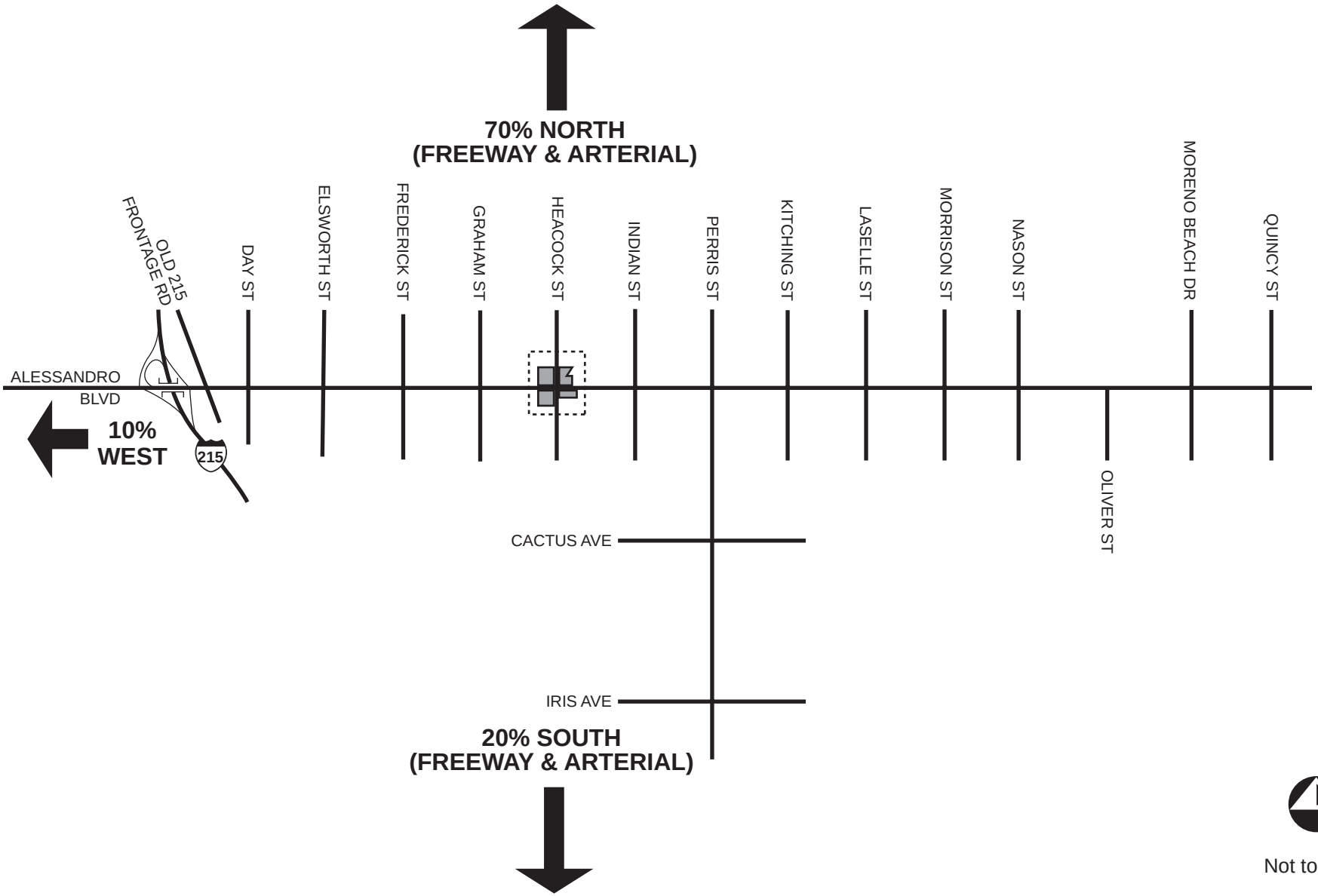
NOV/2012

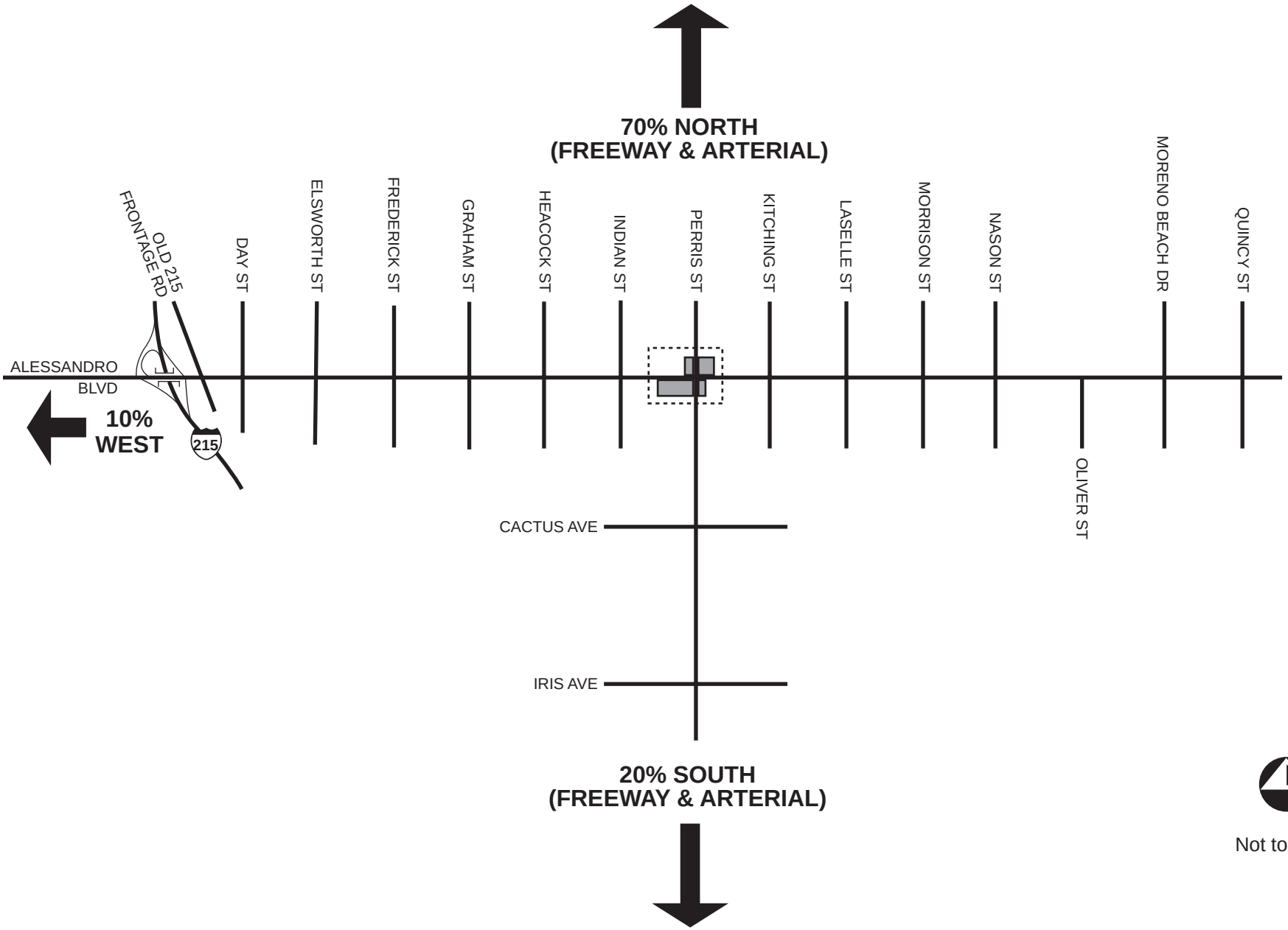


Node 3 Forecast Trip Percent Distribution

Attachment C

H:\pdata\10107939\Traffic\Exhibits\AttC.ai

NOV/2012

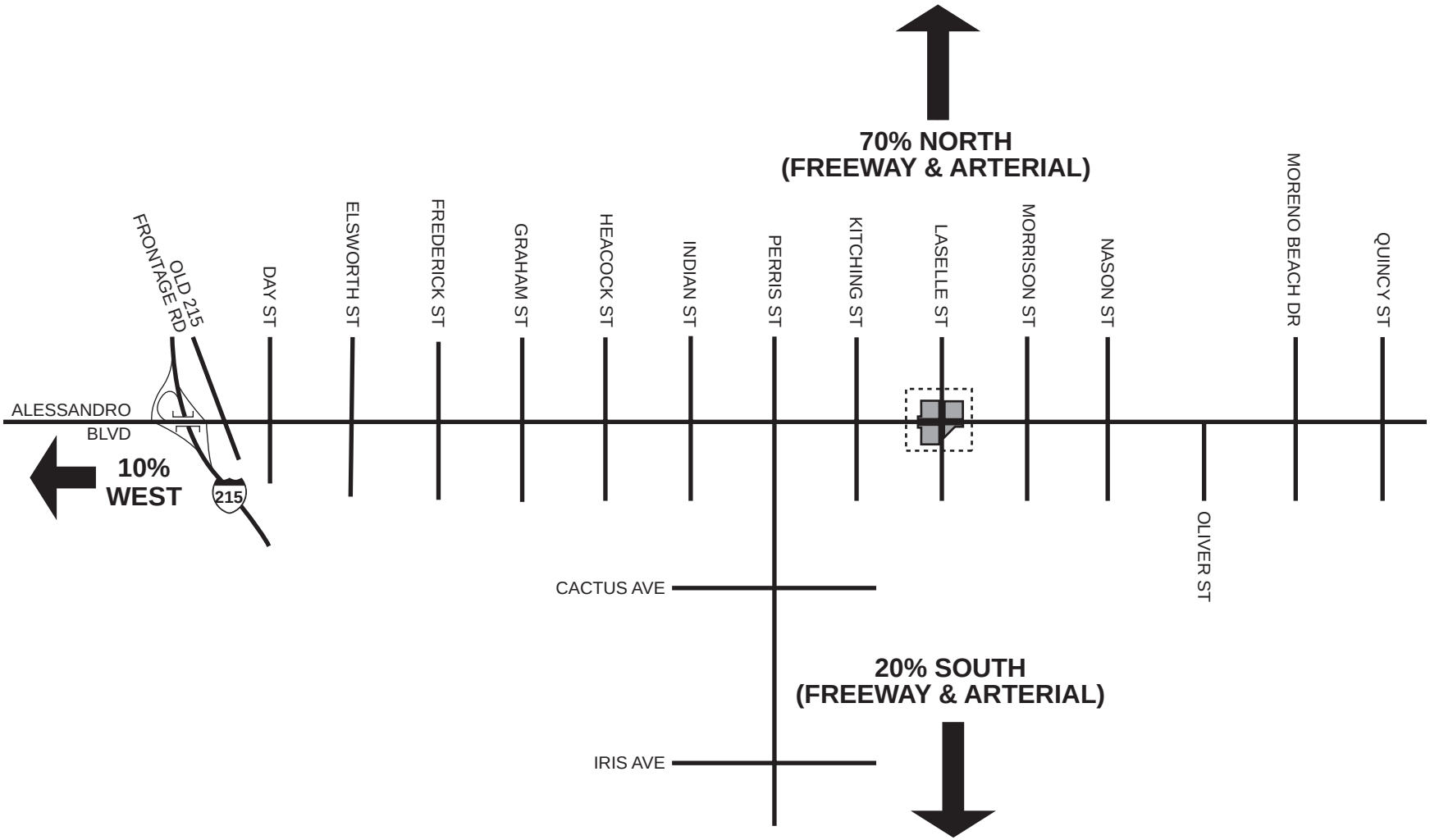


Node 4 Forecast Trip Percent Distribution

Attachment D

H:\pdata\10107939\Traffic\Exhibits\AttD.ai

NOV/2012



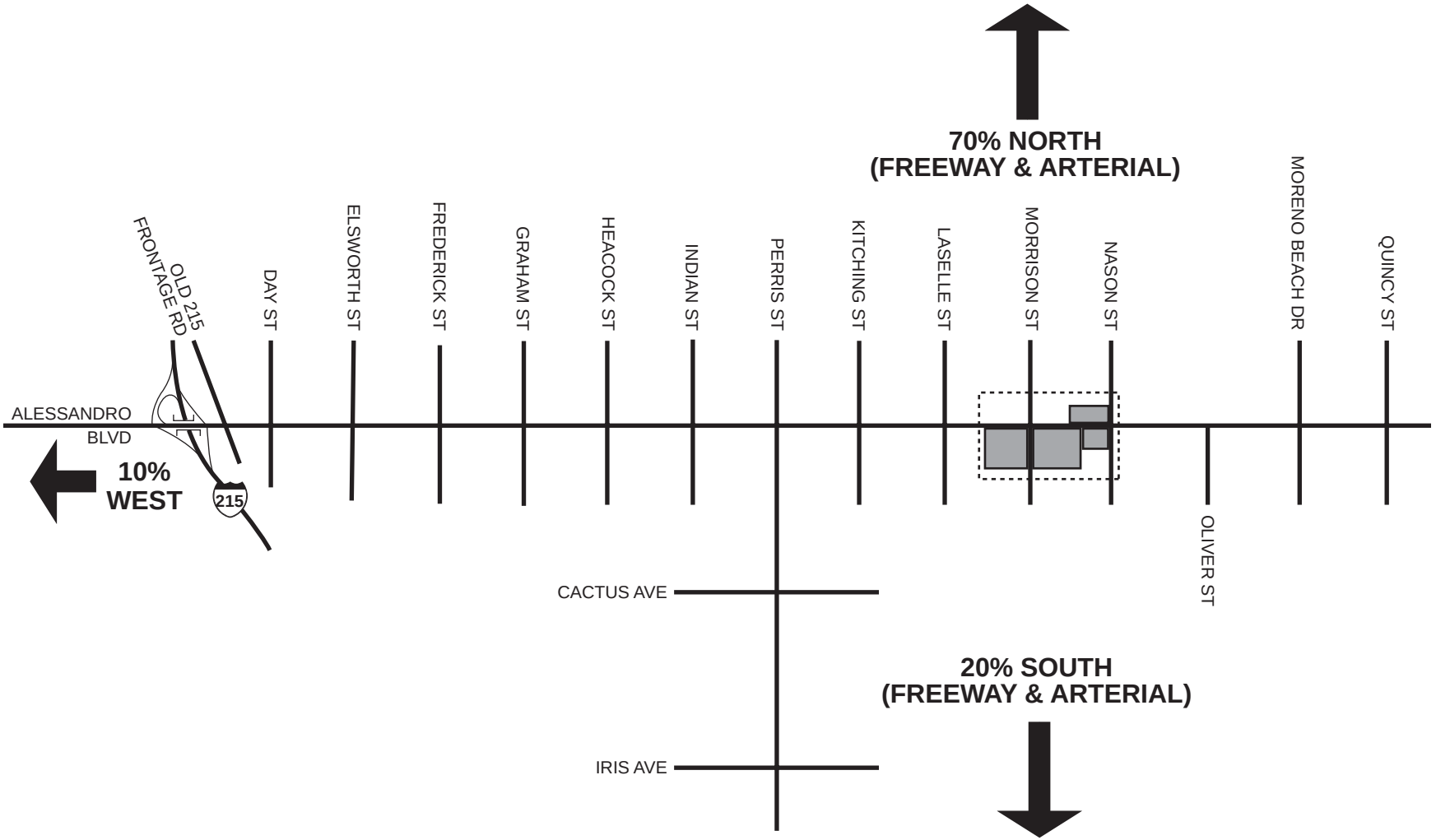
Not to Scale

Node 5 Forecast Trip Percent Distribution

Attachment E

H:\pdata\10107939\Traffic\Exhibits\AttE.ai

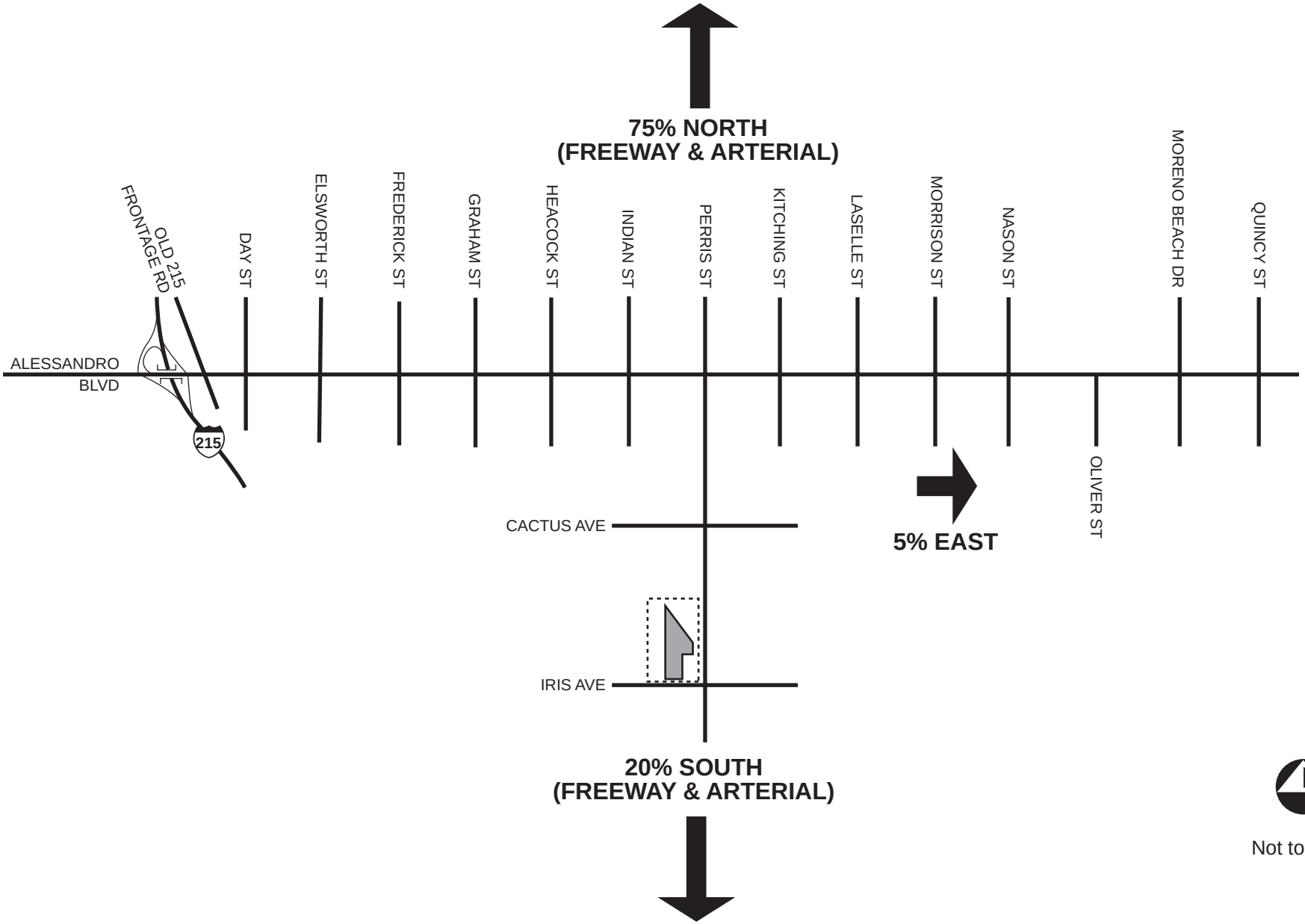
NOV/2012



Not to Scale

Node 6 Forecast Trip Percent Distribution

Attachment F



Calculation 4 Forecast Trip Percent Distribution

Attachment G