CITY OF SAN BERNARDINO

RANCHO PALMA DEVELOPMENT PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT

SCH No. 2016031080

Lead Agency:

CITY OF SAN BERNARDINO
300 NORTH D STREET
SAN BERNARDINO, CA 92418

NOVEMBER 2016

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1.0 INTRODUCTION

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This Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The City of San Bernardino (City) is the lead agency for the environmental review of the proposed Rancho Palma Project (proposed project; project). The City has the principal responsibility for approving the project. This Final EIR assesses the expected environmental impacts resulting from approval and implementation of the proposed project, as well as responds to comments received on the Draft EIR.

1.1 ORGANIZATION AND SCOPE OF THE FINAL EIR

This Final EIR is organized in the following manner:

SECTION 1.0 – INTRODUCTION

Section 1.0 provides an overview of the EIR process to date and what the Final EIR is required to contain.

SECTION 2.0 – COMMENTS RECEIVED AND RESPONSES TO COMMENTS ON THE DRAFT EIR

Section 2.0 provides a list of commenters, copies of written comments (coded for reference), and the responses to those comments made on the Draft EIR.

SECTION 3.0 – MINOR REVISIONS TO THE DRAFT EIR

Section 3.0 provides a list of minor edits made to the Draft EIR as a result of comments received and other staff-initiated changes.

1.2 BACKGROUND AND PURPOSE OF THE EIR

BACKGROUND OF ENVIRONMENTAL REVIEW PROCESS OF THE PROJECT

The following is an overview of the environmental review process for the proposed Horizons Development Project that led to the preparation of this Final EIR.

Notice of Preparation

The Notice of Preparation (NOP) for the Draft EIR was submitted for public review on March 28, 2016, with the review period ending on April 28, 2016. A scoping meeting was held on April 28, 2016, to solicit input from interested agencies and the public. The City received several comment letters on the NOP and during the public scoping meeting. The NOP comments are provided in Appendix 1.0 of the Draft EIR and summarized in Section 1.0, Introduction, of the Draft EIR.

Draft EIR

The Draft EIR was released for public and agency review on July 8, 2016 with the 45-day review period ending on August 22, 2016. The Draft EIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. The Draft EIR was provided to interested public agencies and the public and was made available for review at City offices and on the City's website (http://www.ci.san-bernardino.ca.us).

Final EIR

The City received five comment letters from public agencies and interest groups regarding the Draft EIR. This document responds to the comments received by the City on the proposed project, as required by CEQA. This document also contains minor edits to the Draft EIR, which are included in Section 3.0, Minor Revisions to the Draft EIR. This document constitutes the Final EIR.

Certification of the Final EIR/Project Consideration

The City will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City may certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if it: (1) shows a good faith effort at full disclosure of environmental information; and (2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the City may take action to adopt, revise, or reject the proposed project. A decision to approve the proposed project would be accompanied by written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a mitigation monitoring and reporting program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.

1.3 INTENDED USES OF THE EIR

The EIR is intended to evaluate the environmental impacts of the project to the greatest extent possible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all planning and permitting actions associated with the project. Please refer to Section 2.0, Project Description, of the Draft EIR for a detailed discussion of the proposed project.

2.0 COMMENTS RECEIVED AND RESPONSES TO COMMENTS ON THE DRAFT EIR

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As noted, the Rancho Palma Draft EIR was circulated for public review from July 8, 2016 to August 22, 2016 (a 45-day period). A total of four comment letters were received by the City of San Bernardino Planning department within the review period. The following is a list of the names and addresses of persons, organizations, and public agencies that submitted comments to the City of San Bernardino. All letters received and the City's response to each comments are included on the following pages.

Table 2.1 Comment Letters Received During 45-Day Public Review of Draft EIR

Letter Reference	Date of Letter	Agency, Organization, or Other Interested Party	Address
A	July 28, 2016	California Department of Transportation (CALTRANS)	District 8, Planning (MS 725) 464 West 4th Street, 6th Floor San Bernardino, CA 92401-1400
B*	October 21, 2015	CALTRANS	District 8, Planning (MS 725) 464 West 4th Street, 6th Floor San Bernardino, CA 92401-1400
C	August 19, 2016	South Coast Air Quality Management District	21865 Copley Drive Diamond Bar, CA 91765-4178
D	August 31, 2016	San Bernardino County Department of Public Works	825 East Third Street San Bernardino, CA92415-0835
E	August 5, 2016	SoCal Environmental Justice Alliance	Not Provided; socaleja@gmail.com

Letter B was received from Caltrans during the 30-day review period for the Notice of Preparation of an EIR; however, it is included herein, as the subsequent letter from Caltrans dated July 28, 2016, built upon comments identified in the October 15, 2015 letter.

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 725)
464 WEST 4th STREET, 6th FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 388-7017
FAX (909) 383-5936
TTY 711
www.dot.ca.gov/dist8

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RECEIVED
AUG 0 1 2016
BY:

July 28, 2016 **File: 08-SBd-215-PM 14.10**

Oliver Mujica
City of San Bernardino
300 North "D" Street, 3rd Floor
San Bernardino, CA 92418

Rancho Palma - Draft Environmental Impact Report and Traffic Impact Analysis

Dear Mr. Mujica:

A-1 Thank you for providing the California Department of Transportation (Caltrans) the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the City of San Bernardino Rancho Palma Project (Project). The project is located on the northwest quadrant of West Little League Drive/Kendall Drive and Palm Avenue, in the City of San Bernardino. It is proposed to include the development of 120 single family detached residential dwelling units and 98,000 square feet of commercial retail use.

A-2 As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As the responsible agency under the California Environmental Quality Act, it is also our responsibility to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of San Bernardino, due to the project's potential impact to the State facilities, including Interstate 215 (I-215), it is also subject to the policies and regulations that govern the SHS.

A-3 We recommend a meeting prior to the approval of the DEIR to resolve the issues stated in the Caltrans letter dated October 21, 2015, which have not been addressed in the DEIR, and accurately evaluate the extent of potential impacts of the project to the operational characteristics of the existing State facilities. We offer the following comments regarding the analysis of the DEIR and the comments previously provided on the Traffic Impact Analysis:

A-4
- Provide the existing AM and PM peak hour traffic counts that were collected in May 2015. Additionally, provide the Synchro files for review.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Comment Letter A - California Department of Transportation, July 28, 2016

A-1 This comment is introductory and does not address the adequacy of the EIR; no response is required.

A-2 The commenter's role in the project as a responsible agency and the potential for the project to affect Interstate 215 are acknowledged. This comment does not address the adequacy of the EIR; no response is required.

A-3 The project applicant met with Caltrans and City staff on September xx, 2016, to further discuss the issues identified in the July 28, 2016 letter with regard to potential transportation impacts potentially resulting with project implementation, relative to CEQA. As a result of such discussion, no additional significant environmental impacts were identified, and no new mitigation measures are required. Additionally, no revisions to the analysis included in the Draft EIR were made or required.

A-4 The existing (2015) AM and PM peak hour counts are included in Appendix 3.1 of the Traffic Impact Analysis (TIA). Synchro files will be provided on a CD for Caltrans review as requested.

A-5 • Consider the outer separation barrier between I-215 and Little League Drive. See Highway Design Manual Section 310 and Traffic Manuel Section 7-05.

A-6 • Provide the queue length on Palm Avenue between Palm Avenue/Kendall Drive (#12) and Palm Avenue/I-215 SB ramps (#14).

A-7 • Review Pass-by trip reduction and consult with Caltrans for reductions greater than 15%.

A-8 • Submit the Electrical Design plans for review.

A-9 • Coordinate timing revisions at the following intersections: Palm Avenue/Kendall Drive (#12), Palm Avenue/I-215 NB ramps (#13), and Palm Avenue/I-215 SB ramps (#14), once the project is completed.

A-10 The Department is committed to providing a safe transportation system for all users. We encourage the City to embark a safe, sustainable, integrated and efficient transportation system and complete street to enhance California's economy and livability. A pedestrian/bike-friendly environment served by multimodal transportation would reduce traffic congestion prevalent in the surrounding areas. (See *Complete Street Implementation Action Plan 2.0* at http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/CSIAP2_rpt.pdf.)

A-11 • Coordinate with OmniTrans to extend Route 2 and/or SbX and locate transit stops to serve the area in the immediate vicinity of the proposed Project.

A-12 • Locate preferential parking for vanpools and carpools, along with, secure, visible, and convenient bicycle parking/racks accessible to commercial use location, as well as zero emission vehicles charging stations within the project area.

A-13 • Design the local streets within the project site to serve vehicular and pedestrian circulation equally with narrower or compact design solutions suitable for the safe pedestrian friendly environment. Integrate traffic calming elements into the design of the circulation system, including a bent grid system, tapered streets with narrower street widths at intersections, and potential use of "Table Top" pedestrian crossings.

A-14 • Consider Americans with Disability Act, California Highway Design Manual, Design information Bulletin 82-05, and Urban Bikeway Design Guide standards and requirements to help meet the State's greenhouse gas emissions reduction goals, improve Californians' health by helping more people be active by providing transportation routes for all users and modes, including pedestrian and bicyclists.

Comment Letter A - California Department of Transportation, July 28, 2016

A-5 No revisions to the analysis included in the Draft EIR were made or required. The opposing frontage road traffic volume on Little League Drive does not appear to meet the volume warrant criteria specified in Caltrans Traffic Manual for an outer separation barrier. The City and Caltrans may continue to discuss if an outer separation barrier is required at this location based on other factors in the future.

A-6 A queuing analysis was conducted on Palm Avenue between Little League Drive/Kendall Drive and I-215 WB ramps using Synchro software (refer to the Traffic Impact Analysis prepared by Urban Crossroads in September 2015; available under separate cover). The results of the queuing analysis are summarized in Table 1, below. As shown on Table 1, the 95th percentile queues on Palm Avenue exceed the available stacking under Existing (2015), EA (2018) Without Project, EA (2019) Without Project, Opening Year Cumulative (2018) Without Project, Opening Year Cumulative (2019) Without Project and Horizon Year (2035) Without Project traffic conditions. The 95th percentile queues will continue to exceed available stacking with the addition of project traffic.

Table 1. Palm Avenue Peak Hour Queuing Summary

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)[2]		Accept-able?[1]		95th Percentile Queue (Feet)[2]		Accept-able?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Existing plus Project (Phase 1)										
			Existing (2015)				*E+P (Phase 1)*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	229[2]	290[2]	No	No	262[2]	395	No	No
	NBT	170	133	221	Yes	No	133	218	Yes	No
	NBR	170	14	37	Yes	Yes	14	27	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	275	75	No	Yes	282	78	No	Yes
Existing plus Project (Buildout)										
			Existing (2015)				*E+P (Buildout)*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	229[2]	290[2]	No	No	324[2]	463[2]	No	No
	NBT	170	133	221	Yes	No	131	220	Yes	No
	NBR	170	14	37	Yes	Yes	15	38	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	275	75	No	Yes	274	81	No	Yes

Comment Letter A - California Department of Transportation, July 28, 2016

Table 1, continued

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)[2]		Accept-able?[1]		95th Percentile Queue (Feet)[2]		Accept-able?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Existing plus Ambient Growth plus Project (2018)										
			EA (2018)				*EAP (2018)*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	252[2]	320[2]	No	No	284[2]	422[2]	No	No
	NBT	170	140	233	Yes	No	140	228	Yes	No
	NBR	170	16	40	Yes	Yes	16	40	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	302	83	No	Yes	310	88	No	Yes
Existing plus Ambient Growth plus Project (2019)										
			EA (2019)				*EAP (2019)*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	257[2]	328[2]	No	No	354[2]	492[2]	No	No
	NBT	170	144	239	Yes	No	146	234	Yes	No
	NBR	170	17	40	Yes	Yes	17	42	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	313	86	No	Yes	395[2]	95	No	Yes
Opening Year Cumulative (2018)										
			2018 Without Project				*2018 With Project*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	250[2]	317[2]	No	No	280[2]	413[2]	No	No
	NBT	170	152	228	Yes	No	152	223	Yes	No
	NBR	170	17	48	Yes	Yes	19	49	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	297	89	No	Yes	449[2]	94	No	Yes
Opening Year Cumulative (2019)										
			2019 Without Project				*2019 With Project*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	257[2]	322[2]	No	No	351[2]	481[2]	No	No
	NBT	170	156	232	Yes	No	155	231	Yes	No
	NBR	170	19	49	Yes	Yes	31	70	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	446[2]	93	No	Yes	478[2]	101	No	Yes

Comment Letter A - California Department of Transportation, July 28, 2016

Table 1, continued

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)[2]		Accept-able?[1]		95th Percentile Queue (Feet)[2]		Accept-able?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Horizon Year (2035)										
			2035 Without Project				*2035 With Project*			
Palm Ave./ Little League Dr./ Kendall Dr.	NBL	65	265[2]	315[2]	No	No	307[2]	418[2]	No	No
	NBT	170	174	254	No	No	185	227	No	No
	NBR	170	31	24	Yes	Yes	30	46	Yes	Yes
Palm Ave./ I-215 NB Ramps	SBT	170	456[2]	128	No	Yes	393[2]	136	No	Yes

1. Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown in this table, where applicable.

2. 95th percentile volume exceeds capacity, queues may be longer. Queue shown is maximum after two cycles.

It should be noted that the queuing issues at this location are existing and cumulative in nature and not caused by the proposed project. Further, as discussed in TIA Section 4.1.3, Trip Generation Comparison, development of the proposed project is anticipated to generate 6,184 fewer vehicle trip-ends per day with 120 fewer AM peak hour trip and 583 fewer PM peak hour trips as compared to the land uses and intensities allowed under the current General Plan.

The Synchro queuing worksheets prepared by Urban Crossroads as part of this response to Caltrans are provided in Attachment A, Palm Avenue Queuing Analysis Worksheets, below.

A-7 The use of a pass-by trip reduction of more than 15% is typical for retail projects throughout California, and is based on information collected and presented in the Institute of Transportation Engineers (ITE) Trip Generation Handbook (2nd Edition, 2004). The average pass-by percentage published by ITE for retail shopping centers (Land Use Code 820 – Shopping Center) is 34% for the PM peak hour, and is based on information collected at 100 survey sites throughout the United States. The use of the ITE based pass-by trip reduction of 34% was reviewed and approved by the lead agency (City of San Bernardino) as part of the

traffic study scoping process prior to preparation of the traffic study. Consistent with Caltrans guidance, discussion of the use of the ITE based pass-by trip reduction is provided in the traffic study (Section 4.1). Caltrans also acknowledges in their Guide for the Preparation of Traffic Impact Studies (December 2002) that exceeding the 15% reduction is allowed where justified in the TIA. Further review of the survey data used to estimate the ITE pass-by rate indicates that for sites less than 100,000 square feet, the average pass-by trip rate would exceed 34%, and would in fact be closer to 40%. Therefore, the use of the 34% pass-by trip reduction is conservative, and would tend to overstate as opposed to understate project-related vehicle trips.

A-8 The project applicant will submit the Electrical Design plans to Caltrans for review, consistent with the request.

A-9 The project applicant will work with City of San Bernardino and Caltrans once the project is completed to coordinate/revise signal timing at the intersections of Palm Avenue and Little League Drive/Kendall Drive and Palm Avenue at I-215 SB and NB ramps.

A-10 There is an existing sbX transit station/transfer point on Kendall Drive, just east of Palm Avenue. Additionally, Omnitrans Route 2 runs to just east of the project site, while Route 7 and Route 11 run in proximity of the project site near University Parkway. Existing bus stop locations, crosswalks, bike lanes, trails, and sidewalks are located within proximity to the project site. According to the City of San Bernardino Conceptual Trail System, a regional multipurpose trail is proposed west of Palm Avenue and along Pine Avenue, north of Kendall Drive. Additionally, the City has identified planned bicycle routes along Cajon Boulevard, west of Palm Avenue.

Five-foot-wide pedestrian sidewalks are proposed along both sides of West Little League Drive along the project frontage and along both sides of (future) Magnolia Avenue with project implementation. The sidewalks are proposed to provide a pedestrian linkage to proposed on-site land uses, including the commercial center, as well as to adjacent off-site land uses and transit facilities.

The residential and commercial components of the proposed project would generate commuters that would have the option to use public transit located within proximity to the project site. However, the performance of these systems is not expected to decrease upon implementation of the proposed project. The existing and proposed transit options would remain intact and would be available for residents and visitors to the area to encourage and facilitate safe use and access to such means of transportation.

A-11 Transit service is reviewed and updated by Omnitrans periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. The project applicant will coordinate with Omnitrans as is appropriate.

A-12 Future provision of parking for the commercial uses will be designed and provided in accordance with City parking design standards and as identified in the Rancho Palma Specific Plan. The placement of any bike racks and/or electrical vehicle charging stations, if provided, will be determined at the time when site-specific design plans are prepared for the commercial use area.

A-13 All project roadway improvements will be designed in accordance with City design standards and as identified in the Rancho Palma Specific Plan. West Little League Drive presently has a 60-foot right-of-way; Magnolia Avenue has a 65-foot right-of-way, which includes a 5-foot-wide landscaped area. Five-foot-wide pedestrian sidewalks will be provided along both sides of West Little League Drive along the project frontage and along both sides of (future) Magnolia Avenue with project implementation. Magnolia Avenue will be improved along the northern property line of Rancho Palma from West Little League Drive to a proposed cul-de-sac located just west of the Cable Creek Channel. Refer to Figure 2-6, Streetscape Sections, of the Draft EIR which shows the intended roadway improvements.

The interior private roadway system for Rancho Palma will be designed to the City's local street design standards, with a 50-foot

A-15 These recommendations are preliminary and summarize our review of materials provided for our evaluation. If this project is later modified in any way, please forward copies of revised plans as necessary so that we may evaluate all proposed changes for potential impacts to the SHS. If you have any questions regarding this letter, please contact Adrineh Melkonian (909) 806-3928 or myself at (909) 383-4557.

Sincerely,

MARK ROBERTS
Office Chief
Intergovernmental Review, Community and Regional Planning

Comment Letter A - California Department of Transportation, July 28, 2016

right-of-way, 36-foot paved street width (two 18-foot wide travel lanes), and a 4-foot-wide sidewalk constructed along each side of the roadway to provide a pedestrian linkage to on-site land uses, including the commercial center, as well as to adjacent off-site land uses.

A-14 See Response A-13. Site adjacent roadway improvements would be those required by the final conditions of approval for the proposed project and applicable City of San Bernardino roadway design standards.

A-15 See Response A-3. The project applicant will continue to coordinate with Caltrans as the project continues through the discretionary process at the City of San Bernardino and as site-specific design plans are prepared for future development of the property.

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Attachment A:
Palm Avenue Queuing Analysis Worksheets

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	27	74	207	382	90	160	158	348	416	124	870
v/c Ratio	0.15	0.40	0.57	0.81	0.29	0.37	0.77	0.21	0.34	0.72	0.55
Control Delay	46.5	53.8	11.9	63.6	46.5	8.7	72.6	20.2	1.1	75.0	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.5	0.3	0.0	0.6
Total Delay	46.5	53.8	11.9	63.6	46.5	8.7	73.5	20.7	1.4	75.0	28.8
Queue Length 50th (ft)	19	56	0	161	68	0	128	76	0	98	236
Queue Length 95th (ft)	48	86	58	#230	101	52	#229	133	14	#180	380
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	191	426	574	501	604	700	225	1648	1253	193	1579
Starvation Cap Reductn	0	0	0	0	0	0	8	866	336	0	0
Spillback Cap Reductn	0	0	18	0	0	0	0	0	0	0	326
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.17	0.37	0.76	0.15	0.23	0.73	0.45	0.45	0.64	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	217	419	559	1356
v/c Ratio	0.56	0.68	0.38	0.63
Control Delay	24.5	13.1	8.7	8.5
Queue Delay	0.0	0.0	0.0	0.5
Total Delay	24.5	13.1	8.7	9.0
Queue Length 50th (ft)	69	48	46	275
Queue Length 95th (ft)	105	104	101	86
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	818	1462	2153
Starvation Cap Reductn	0	0	0	372
Spillback Cap Reductn	0	12	30	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.52	0.39	0.76

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	77	164	369	144	224	221	518	334	116	336
v/c Ratio	0.28	0.41	0.50	0.83	0.51	0.48	0.74	0.31	0.28	0.71	0.24
Control Delay	51.8	54.1	11.6	65.8	52.8	8.8	62.0	22.3	2.3	75.2	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	19.2	0.8	0.3	0.0	0.0
Total Delay	51.8	54.1	11.6	65.8	52.8	8.8	81.2	23.1	2.6	75.2	24.9
Queue Length 50th (ft)	37	58	0	155	109	0	165	113	7	92	76
Queue Length 95th (ft)	75	90	54	#217	154	62	#290	221	37	#187	142
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	185	426	542	484	560	705	297	1686	1220	178	1412
Starvation Cap Reductn	0	0	0	0	0	0	67	821	404	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.18	0.30	0.76	0.26	0.32	0.96	0.60	0.41	0.65	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	291	547	564	771
v/c Ratio	0.61	0.77	0.39	0.39
Control Delay	22.8	17.1	9.3	3.7
Queue Delay	0.0	0.1	0.0	0.2
Total Delay	22.8	17.2	9.3	3.9
Queue Length 50th (ft)	88	88	46	75
Queue Length 95th (ft)	133	165	147	10
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	644	867	1456	1986
Starvation Cap Reductn	0	0	0	495
Spillback Cap Reductn	0	14	77	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.64	0.41	0.52

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	29	85	224	462	103	182	172	387	485	144	955
v/c Ratio	0.14	0.44	0.58	0.81	0.30	0.37	0.78	0.26	0.39	0.75	0.67
Control Delay	44.6	54.7	11.6	59.0	45.3	8.1	70.8	24.2	1.6	74.7	34.2
Queue Delay	0.0	0.0	0.3	2.1	0.0	0.0	3.3	0.7	0.4	0.0	1.4
Total Delay	44.6	54.7	11.8	61.1	45.3	8.1	74.1	24.9	2.0	74.7	35.6
Queue Length 50th (ft)	20	64	0	190	78	0	140	91	5	114	300
Queue Length 95th (ft)	51	97	60	#309	113	55	#257	156	19	#224	#454
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	216	426	587	572	604	714	234	1474	1246	204	1417
Starvation Cap Reductn	0	0	0	0	0	0	20	756	327	0	0
Spillback Cap Reductn	0	0	80	38	0	0	0	0	0	0	266
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.20	0.44	0.87	0.17	0.25	0.80	0.54	0.53	0.71	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	254	460	663	1529
v/c Ratio	0.59	0.75	0.93dl	0.74
Control Delay	23.6	17.9	12.4	10.8
Queue Delay	0.0	0.0	0.0	0.9
Total Delay	23.6	17.9	12.4	11.7
Queue Length 50th (ft)	79	79	68	324
Queue Length 95th (ft)	120	145	146	#446
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	784	1173	2053
Starvation Cap Reductn	0	0	0	261
Spillback Cap Reductn	0	11	25	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.60	0.58	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	53	89	178	432	161	250	239	576	410	133	376
v/c Ratio	0.30	0.46	0.51	0.91	0.53	0.50	0.80	0.36	0.34	0.72	0.28
Control Delay	52.2	55.0	11.2	74.9	52.5	8.4	64.0	23.8	2.7	73.3	26.2
Queue Delay	0.0	0.0	0.0	0.6	0.0	0.0	37.6	1.5	0.4	0.0	0.0
Total Delay	52.2	55.0	11.2	75.4	52.5	8.4	101.6	25.3	3.1	73.3	26.2
Queue Length 50th (ft)	40	67	0	186	121	0	181	137	11	105	89
Queue Length 95th (ft)	80	102	56	#285	170	65	m#322	232	49	#228	159
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	188	426	553	484	560	723	297	1595	1214	189	1364
Starvation Cap Reductn	0	0	0	0	0	0	68	793	383	0	0
Spillback Cap Reductn	0	0	0	4	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.21	0.32	0.90	0.29	0.35	1.04	0.72	0.49	0.70	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	325	599	701	878
v/c Ratio	0.61	0.83	0.61	0.47
Control Delay	21.0	22.6	12.9	4.4
Queue Delay	0.0	0.3	0.2	0.3
Total Delay	21.0	22.9	13.1	4.7
Queue Length 50th (ft)	89	121	128	93
Queue Length 95th (ft)	151	228	m187	m12
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	828	1152	1859
Starvation Cap Reductn	0	0	0	407
Spillback Cap Reductn	0	31	64	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.75	0.64	0.60

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	47	117	288	462	139	182	219	387	485	144	980
v/c Ratio	0.19	0.54	0.66	0.81	0.47	0.41	0.75	0.27	0.40	0.75	0.80
Control Delay	44.2	57.0	15.9	59.0	50.9	8.6	62.1	25.1	2.1	74.7	42.4
Queue Delay	0.0	0.0	0.4	3.0	0.0	0.0	24.7	0.8	0.5	0.0	3.0
Total Delay	44.2	57.0	16.3	62.0	50.9	8.6	86.7	26.0	2.5	74.7	45.4
Queue Length 50th (ft)	32	88	24	190	105	0	177	91	11	114	347
Queue Length 95th (ft)	72	126	92	#309	147	55	#351	155	31	#224	#474
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	254	426	610	572	604	714	292	1427	1210	204	1219
Starvation Cap Reductn	0	0	0	0	0	0	70	730	335	0	0
Spillback Cap Reductn	0	0	82	48	0	0	0	0	0	0	148
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.27	0.55	0.88	0.23	0.25	0.99	0.56	0.55	0.71	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	254	478	692	1592
v/c Ratio	0.57	0.77	0.93dl	0.79
Control Delay	22.4	19.9	14.1	9.5
Queue Delay	0.0	0.1	0.1	1.2
Total Delay	22.4	20.0	14.2	10.7
Queue Length 50th (ft)	77	91	78	31
Queue Length 95th (ft)	120	163	#159	#478
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	773	1126	2021
Starvation Cap Reductn	0	0	0	220
Spillback Cap Reductn	0	13	49	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.63	0.64	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	100	153	256	432	227	250	324	576	410	133	422
v/c Ratio	0.50	0.61	0.55	0.91	0.75	0.54	1.09	0.39	0.36	0.72	0.33
Control Delay	57.9	57.6	9.5	74.9	62.3	14.0	115.7	26.1	3.9	73.3	27.4
Queue Delay	0.0	0.0	0.0	5.0	0.0	0.0	6.4	2.3	0.5	0.0	0.0
Total Delay	57.9	57.6	9.5	79.9	62.3	14.0	122.1	28.5	4.4	73.3	27.4
Queue Length 50th (ft)	78	115	0	186	170	32	~297	144	22	105	101
Queue Length 95th (ft)	134	162	65	#285	237	101	m#481	231	m70	#228	170
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	200	426	612	484	560	691	297	1487	1154	189	1271
Starvation Cap Reductn	0	0	0	0	0	0	63	751	374	0	0
Spillback Cap Reductn	0	0	1	26	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.36	0.42	0.94	0.41	0.36	1.38	0.78	0.53	0.70	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	325	631	752	953
v/c Ratio	0.57	0.85	0.71	0.53
Control Delay	19.2	25.5	16.2	5.1
Queue Delay	0.0	1.5	1.4	0.4
Total Delay	19.2	26.9	17.5	5.5
Queue Length 50th (ft)	85	140	143	101
Queue Length 95th (ft)	151	#310	m#209	m27
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	811	1057	1785
Starvation Cap Reductn	0	0	0	359
Spillback Cap Reductn	0	64	140	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.84	0.82	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	94	255	508	113	200	206	464	535	158	1139
v/c Ratio	0.15	0.47	0.62	0.76	0.29	0.37	0.77	0.35	0.44	0.75	0.95
Control Delay	43.7	55.4	12.9	53.1	44.0	7.6	61.2	28.4	2.3	72.6	56.3
Queue Delay	0.0	0.0	0.9	55.6	0.0	0.0	25.5	2.0	0.8	0.0	43.9
Total Delay	43.7	55.4	13.8	108.7	44.0	7.6	86.7	30.4	3.1	72.6	100.1
Queue Length 50th (ft)	22	71	6	204	85	0	164	132	23	124	436
Queue Length 95th (ft)	56	105	69	#353	123	57	m#265	m174	m31	#253	#608
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	231	426	604	668	604	726	267	1315	1226	217	1196
Starvation Cap Reductn	0	0	0	0	0	0	59	676	393	0	0
Spillback Cap Reductn	0	0	153	316	0	0	0	0	0	0	274
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.22	0.57	1.44	0.19	0.28	0.99	0.73	0.64	0.73	1.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	420	553	743	1778
v/c Ratio	0.78	0.80	1.09dl	0.97
Control Delay	28.4	21.5	28.0	25.1
Queue Delay	0.0	0.6	1.6	28.0
Total Delay	28.4	22.0	29.6	53.1
Queue Length 50th (ft)	124	112	120	~498
Queue Length 95th (ft)	#218	#226	#227	m#456
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	761	869	1829
Starvation Cap Reductn	0	0	0	163
Spillback Cap Reductn	0	41	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.69	0.77	0.90	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	58	98	248	476	177	274	298	691	451	147	444
v/c Ratio	0.34	0.49	0.59	0.98	0.55	0.51	1.00	0.45	0.37	0.71	0.33
Control Delay	54.0	55.6	11.3	87.9	52.0	8.1	85.7	26.1	2.4	69.8	27.8
Queue Delay	0.0	0.0	0.0	16.6	0.0	0.0	33.9	7.1	0.6	0.0	0.0
Total Delay	54.0	55.6	11.3	104.5	52.0	8.1	119.6	33.2	3.0	69.8	27.8
Queue Length 50th (ft)	44	74	0	208	133	0	~243	180	12	114	110
Queue Length 95th (ft)	86	110	65	#329	186	67	m#315	m254	m24	#258	191
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	182	426	606	484	560	740	297	1524	1204	206	1338
Starvation Cap Reductn	0	0	0	0	0	0	66	778	405	0	0
Spillback Cap Reductn	0	0	3	28	0	0	0	0	0	0	12
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.23	0.41	1.04	0.32	0.37	1.29	0.93	0.56	0.71	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	423	721	805	1044
v/c Ratio	0.68	0.93	1.03dl	0.62
Control Delay	21.7	34.7	27.7	7.0
Queue Delay	0.0	15.8	23.8	0.8
Total Delay	21.7	50.6	51.5	7.8
Queue Length 50th (ft)	120	191	157	128
Queue Length 95th (ft)	208	#400	m#228	m23
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	801	885	1681
Starvation Cap Reductn	0	0	0	335
Spillback Cap Reductn	0	88	111	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	1.01	1.04	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	122	319	508	145	200	253	464	535	158	1170
v/c Ratio	0.21	0.56	0.65	0.76	0.44	0.41	0.81	0.37	0.45	0.73	1.11
Control Delay	43.2	57.3	10.9	53.1	49.5	8.1	58.9	30.6	2.4	68.3	101.2
Queue Delay	0.0	0.0	1.2	55.6	0.0	0.0	57.3	1.7	0.8	0.0	1.1
Total Delay	43.2	57.3	12.1	108.7	49.5	8.1	116.2	32.2	3.2	68.3	102.4
Queue Length 50th (ft)	38	92	0	204	109	0	196	134	21	126	~548
Queue Length 95th (ft)	84	132	68	#353	152	57	m#307	m185	m30	191	#667
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	281	426	659	668	604	726	314	1258	1202	311	1057
Starvation Cap Reductn	0	0	0	0	0	0	93	600	363	0	0
Spillback Cap Reductn	0	0	162	316	0	0	0	0	0	0	211
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.29	0.64	1.44	0.24	0.28	1.14	0.71	0.64	0.51	1.38

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	420	571	772	1841
v/c Ratio	0.78	0.83	1.09dl	1.01
Control Delay	28.3	24.8	32.6	28.4
Queue Delay	0.0	0.7	9.1	30.0
Total Delay	28.3	25.5	41.7	58.4
Queue Length 50th (ft)	123	124	130	~411
Queue Length 95th (ft)	#218	#281	#241	m#393
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	753	859	1830
Starvation Cap Reductn	0	0	0	137
Spillback Cap Reductn	0	40	74	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.69	0.80	0.98	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	113	154	326	476	234	274	383	691	451	147	499
v/c Ratio	0.54	0.59	0.61	0.98	0.76	0.57	1.29	0.49	0.40	0.71	0.40
Control Delay	58.6	55.7	9.5	87.9	62.6	15.1	178.1	28.9	4.8	69.8	29.8
Queue Delay	0.0	0.0	0.0	37.3	0.0	0.0	3.0	17.7	0.8	0.0	0.0
Total Delay	58.6	55.7	9.5	125.2	62.6	15.1	181.1	46.6	5.6	69.8	29.8
Queue Length 50th (ft)	89	115	0	208	175	39	~402	194	43	114	130
Queue Length 95th (ft)	150	163	72	#329	244	113	m#418	m227	m46	#258	207
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	211	426	665	484	560	700	297	1408	1119	206	1237
Starvation Cap Reductn	0	0	0	0	0	0	62	715	378	0	0
Spillback Cap Reductn	0	0	7	57	0	0	0	0	0	0	17
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.36	0.50	1.11	0.42	0.39	1.63	1.00	0.61	0.71	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	423	753	857	1119
v/c Ratio	0.66	0.96	1.29dl	0.68
Control Delay	20.7	41.4	50.6	7.7
Queue Delay	0.0	40.8	27.4	1.4
Total Delay	20.7	82.2	78.0	9.1
Queue Length 50th (ft)	120	218	~179	136
Queue Length 95th (ft)	208	#441	m#250	m38
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	787	833	1640
Starvation Cap Reductn	0	0	0	313
Spillback Cap Reductn	0	100	138	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	1.10	1.23	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	30	85	252	382	93	160	174	348	416	124	871
v/c Ratio	0.16	0.44	0.61	0.81	0.30	0.36	0.78	0.21	0.34	0.72	0.57
Control Delay	46.6	54.7	11.7	63.6	46.4	8.6	71.6	20.5	1.1	75.0	29.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	3.6	0.5	0.3	0.0	0.6
Total Delay	46.6	54.7	11.8	63.6	46.4	8.6	75.2	21.0	1.4	75.0	30.2
Queue Length 50th (ft)	21	64	0	161	70	0	141	76	0	98	247
Queue Length 95th (ft)	51	97	63	#230	104	52	#262	133	14	#180	380
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	194	426	608	501	604	700	235	1632	1246	193	1525
Starvation Cap Reductn	0	0	0	0	0	0	21	855	335	0	0
Spillback Cap Reductn	0	0	20	0	0	0	0	0	0	0	290
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.20	0.43	0.76	0.15	0.23	0.81	0.45	0.46	0.64	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	217	427	567	1400
v/c Ratio	0.56	0.70	0.39	0.65
Control Delay	24.3	13.9	8.9	8.6
Queue Delay	0.0	0.0	0.0	0.5
Total Delay	24.3	13.9	8.9	9.1
Queue Length 50th (ft)	69	52	47	282
Queue Length 95th (ft)	104	109	106	128
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	814	1438	2150
Starvation Cap Reductn	0	0	0	340
Spillback Cap Reductn	0	12	38	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.53	0.41	0.77

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	51	84	193	369	157	224	272	518	334	116	341
v/c Ratio	0.30	0.44	0.54	0.83	0.54	0.47	0.92	0.31	0.28	0.71	0.24
Control Delay	52.5	54.6	11.5	65.8	53.2	8.6	80.6	22.5	2.4	75.4	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	48.8	0.8	0.3	0.0	0.0
Total Delay	52.5	54.6	11.5	65.8	53.2	8.6	129.4	23.3	2.7	75.4	25.0
Queue Length 50th (ft)	39	64	0	155	118	0	207	117	8	92	78
Queue Length 95th (ft)	78	97	58	#217	166	62	#395	218	37	#192	143
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	182	426	564	484	560	705	297	1676	1216	174	1402
Starvation Cap Reductn	0	0	0	0	0	0	63	814	402	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.20	0.34	0.76	0.28	0.32	1.16	0.60	0.41	0.67	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	291	571	588	799
v/c Ratio	0.59	0.80	0.41	0.41
Control Delay	21.4	19.3	10.1	4.0
Queue Delay	0.0	0.4	0.1	0.2
Total Delay	21.4	19.7	10.2	4.3
Queue Length 50th (ft)	85	102	49	78
Queue Length 95th (ft)	133	188	153	15
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	644	855	1422	1949
Starvation Cap Reductn	0	0	0	464
Spillback Cap Reductn	0	55	143	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.71	0.46	0.54

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	106	271	382	126	160	206	348	416	124	894
v/c Ratio	0.21	0.51	0.62	0.81	0.46	0.40	0.76	0.22	0.34	0.72	0.64
Control Delay	47.1	56.2	12.1	63.6	51.7	9.0	66.0	21.0	1.2	75.0	33.5
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0	13.5	0.5	0.3	0.0	0.6
Total Delay	47.1	56.2	12.2	64.1	51.7	9.0	79.5	21.5	1.5	75.0	34.1
Queue Length 50th (ft)	32	80	5	161	95	0	164	78	3	98	277
Queue Length 95th (ft)	69	116	69	#230	135	52	#324	131	15	#180	392
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	215	426	618	501	604	700	270	1601	1235	193	1395
Starvation Cap Reductn	0	0	0	0	0	0	48	837	333	0	0
Spillback Cap Reductn	0	0	15	14	0	0	0	0	0	0	196
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.25	0.45	0.78	0.21	0.23	0.93	0.46	0.46	0.64	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	217	437	588	1419
v/c Ratio	0.55	0.72	0.41	0.67
Control Delay	23.6	15.3	9.4	7.9
Queue Delay	0.0	0.0	0.0	0.6
Total Delay	23.6	15.4	9.4	8.5
Queue Length 50th (ft)	69	61	49	274
Queue Length 95th (ft)	102	118	113	176
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	805	1421	2132
Starvation Cap Reductn	0	0	0	323
Spillback Cap Reductn	0	14	52	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.55	0.43	0.78

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	96	141	242	369	210	224	307	518	334	116	382
v/c Ratio	0.51	0.60	0.55	0.83	0.73	0.50	1.03	0.33	0.29	0.71	0.29
Control Delay	59.0	57.9	9.9	65.8	62.1	12.1	105.8	24.3	2.6	75.2	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	25.4	0.9	0.3	0.0	0.0
Total Delay	59.0	57.9	9.9	65.8	62.1	12.1	131.1	25.3	2.9	75.2	25.3
Queue Length 50th (ft)	75	107	0	155	157	18	~267	122	9	92	87
Queue Length 95th (ft)	129	151	64	#217	220	81	#463	220	38	#187	151
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	189	426	601	484	560	687	297	1586	1182	178	1328
Starvation Cap Reductn	0	0	0	0	0	0	61	758	379	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.33	0.40	0.76	0.38	0.33	1.30	0.63	0.42	0.65	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	291	579	615	846
v/c Ratio	0.57	0.81	0.44	0.44
Control Delay	20.7	20.7	10.3	4.1
Queue Delay	0.0	0.6	0.1	0.2
Total Delay	20.7	21.2	10.5	4.4
Queue Length 50th (ft)	83	111	51	81
Queue Length 95th (ft)	133	202	161	26
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	644	844	1396	1924
Starvation Cap Reductn	0	0	0	428
Spillback Cap Reductn	0	65	178	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.74	0.50	0.57

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	28	79	219	406	96	170	169	370	442	131	923
v/c Ratio	0.15	0.42	0.58	0.82	0.30	0.38	0.78	0.23	0.36	0.74	0.61
Control Delay	46.1	54.2	11.8	63.4	46.3	8.5	72.1	21.1	1.3	75.2	30.5
Queue Delay	0.0	0.0	0.1	0.9	0.0	0.0	2.4	0.5	0.3	0.0	0.8
Total Delay	46.1	54.2	11.8	64.3	46.3	8.5	74.5	21.6	1.6	75.2	31.3
Queue Length 50th (ft)	20	60	0	170	73	0	137	83	4	105	267
Queue Length 95th (ft)	50	91	59	#254	107	53	#252	140	16	#196	#412
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	197	426	583	514	604	706	231	1600	1250	196	1522
Starvation Cap Reductn	0	0	0	0	0	0	16	827	327	0	0
Spillback Cap Reductn	0	0	20	19	0	0	0	0	0	0	305
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.19	0.39	0.82	0.16	0.24	0.79	0.48	0.48	0.67	0.76

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	230	444	593	1438
v/c Ratio	0.57	0.72	0.43	0.68
Control Delay	23.9	15.5	9.8	9.6
Queue Delay	0.0	0.0	0.0	0.7
Total Delay	23.9	15.5	9.8	10.4
Queue Length 50th (ft)	73	63	52	302
Queue Length 95th (ft)	108	123	116	231
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	804	1368	2113
Starvation Cap Reductn	0	0	0	335
Spillback Cap Reductn	0	12	31	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.56	0.44	0.81

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	81	174	391	153	238	234	550	354	122	358
v/c Ratio	0.30	0.43	0.51	0.86	0.53	0.49	0.79	0.33	0.29	0.71	0.26
Control Delay	52.3	54.4	11.5	68.3	52.8	8.6	64.5	23.1	2.4	74.8	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	30.6	0.9	0.3	0.0	0.0
Total Delay	52.3	54.4	11.5	68.3	52.8	8.6	95.1	24.0	2.8	74.8	25.4
Queue Length 50th (ft)	40	61	0	166	115	0	175	126	9	97	83
Queue Length 95th (ft)	78	94	56	#244	162	63	#320	233	40	#206	151
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	186	426	550	484	560	715	297	1654	1215	179	1394
Starvation Cap Reductn	0	0	0	0	0	0	67	792	388	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.19	0.32	0.81	0.27	0.33	1.02	0.64	0.43	0.68	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	309	580	599	818
v/c Ratio	0.61	0.81	0.43	0.42
Control Delay	22.0	19.7	10.3	4.1
Queue Delay	0.0	0.2	0.0	0.2
Total Delay	22.0	19.9	10.3	4.3
Queue Length 50th (ft)	90	107	51	83
Queue Length 95th (ft)	143	196	157	11
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	853	1383	1927
Starvation Cap Reductn	0	0	0	454
Spillback Cap Reductn	0	26	73	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.70	0.46	0.56

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	31	90	264	406	99	170	184	370	442	131	924
v/c Ratio	0.16	0.46	0.63	0.82	0.31	0.37	0.78	0.23	0.36	0.74	0.63
Control Delay	46.2	55.1	12.6	63.4	46.2	8.4	70.6	21.5	1.3	75.2	32.1
Queue Delay	0.0	0.0	0.1	1.4	0.0	0.0	6.7	0.6	0.3	0.0	0.9
Total Delay	46.2	55.1	12.7	64.8	46.2	8.4	77.3	22.0	1.6	75.2	33.0
Queue Length 50th (ft)	22	68	4	170	75	0	148	84	5	105	279
Queue Length 95th (ft)	53	101	67	#254	110	53	#284	140	16	#196	#414
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	200	426	613	514	604	706	243	1585	1245	196	1466
Starvation Cap Reductn	0	0	0	0	0	0	30	818	326	0	0
Spillback Cap Reductn	0	0	26	27	0	0	0	0	0	0	269
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.21	0.45	0.83	0.16	0.24	0.86	0.48	0.48	0.67	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	230	452	601	1482
v/c Ratio	0.57	0.74	0.45	0.70
Control Delay	23.7	16.4	10.0	9.8
Queue Delay	0.0	0.0	0.0	0.8
Total Delay	23.7	16.5	10.0	10.6
Queue Length 50th (ft)	73	68	53	310
Queue Length 95th (ft)	108	130	119	280
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	801	1347	2110
Starvation Cap Reductn	0	0	0	310
Spillback Cap Reductn	0	12	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.57	0.46	0.82

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	89	203	391	166	238	286	550	354	122	362
v/c Ratio	0.32	0.46	0.55	0.86	0.56	0.48	0.96	0.34	0.30	0.71	0.26
Control Delay	53.0	55.0	11.3	68.3	53.2	8.4	88.7	23.3	2.4	73.4	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	42.2	1.0	0.3	0.0	0.0
Total Delay	53.0	55.0	11.3	68.3	53.2	8.4	130.9	24.3	2.7	73.4	25.6
Queue Length 50th (ft)	41	67	0	166	125	0	223	130	10	96	84
Queue Length 95th (ft)	81	102	59	#244	175	63	#422	228	40	#218	152
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	183	426	572	484	560	715	297	1636	1208	177	1384
Starvation Cap Reductn	0	0	0	0	0	0	63	782	385	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.21	0.35	0.81	0.30	0.33	1.22	0.64	0.43	0.69	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	309	604	623	845
v/c Ratio	0.59	0.83	0.46	0.45
Control Delay	20.9	22.2	10.9	4.4
Queue Delay	0.0	0.6	0.1	0.3
Total Delay	20.9	22.8	11.0	4.7
Queue Length 50th (ft)	87	119	65	88
Queue Length 95th (ft)	143	219	m162	17
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	843	1354	1893
Starvation Cap Reductn	0	0	0	427
Spillback Cap Reductn	0	58	156	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.77	0.52	0.58

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	29	80	224	413	98	173	172	378	449	134	940
v/c Ratio	0.15	0.43	0.58	0.82	0.30	0.38	0.78	0.24	0.36	0.74	0.63
Control Delay	46.1	54.3	11.7	63.1	46.2	8.4	71.6	21.6	1.3	75.1	31.3
Queue Delay	0.0	0.0	0.1	2.0	0.0	0.0	3.0	0.6	0.3	0.0	1.0
Total Delay	46.1	54.3	11.8	65.1	46.2	8.4	74.6	22.1	1.6	75.1	32.2
Queue Length 50th (ft)	20	61	0	173	74	0	140	86	5	107	278
Queue Length 95th (ft)	51	92	60	#260	108	54	#257	144	17	#203	#442
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	199	426	587	517	604	708	234	1584	1248	198	1503
Starvation Cap Reductn	0	0	0	0	0	0	19	814	325	0	0
Spillback Cap Reductn	0	0	21	33	0	0	0	0	0	0	298
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.19	0.40	0.85	0.16	0.24	0.80	0.49	0.49	0.68	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	234	453	605	1467
v/c Ratio	0.57	0.74	0.45	0.70
Control Delay	23.7	16.4	10.1	10.2
Queue Delay	0.0	0.0	0.0	0.8
Total Delay	23.7	16.5	10.2	11.1
Queue Length 50th (ft)	74	69	54	313
Queue Length 95th (ft)	110	131	120	292
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	800	1339	2100
Starvation Cap Reductn	0	0	0	324
Spillback Cap Reductn	0	12	33	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.57	0.46	0.83

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	53	83	178	399	157	243	239	560	362	126	364
v/c Ratio	0.31	0.44	0.52	0.87	0.54	0.49	0.80	0.34	0.30	0.72	0.26
Control Delay	52.6	54.6	11.4	69.4	52.9	8.5	66.0	23.4	2.5	74.1	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	36.1	1.0	0.3	0.0	0.0
Total Delay	52.6	54.6	11.4	69.4	52.9	8.5	102.1	24.4	2.8	74.1	25.6
Queue Length 50th (ft)	40	63	0	170	118	0	179	130	10	100	85
Queue Length 95th (ft)	80	96	56	#252	166	64	#328	239	40	#213	154
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	185	426	553	484	560	718	297	1638	1212	183	1388
Starvation Cap Reductn	0	0	0	0	0	0	67	779	382	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.19	0.32	0.82	0.28	0.34	1.04	0.65	0.44	0.69	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	315	591	609	835
v/c Ratio	0.62	0.82	0.45	0.44
Control Delay	21.8	20.8	10.5	4.2
Queue Delay	0.0	0.2	0.1	0.3
Total Delay	21.8	21.0	10.5	4.5
Queue Length 50th (ft)	91	112	52	86
Queue Length 95th (ft)	146	207	m159	12
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	849	1366	1912
Starvation Cap Reductn	0	0	0	440
Spillback Cap Reductn	0	28	73	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.72	0.47	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	47	111	288	413	134	173	219	378	449	134	965
v/c Ratio	0.21	0.53	0.67	0.82	0.47	0.41	0.73	0.25	0.37	0.74	0.74
Control Delay	46.4	56.6	15.7	63.1	51.6	8.8	61.6	22.6	1.4	75.1	38.4
Queue Delay	0.0	0.0	0.4	3.2	0.0	0.0	15.8	0.6	0.3	0.0	1.7
Total Delay	46.4	56.6	16.1	66.4	51.6	8.8	77.4	23.2	1.7	75.1	40.1
Queue Length 50th (ft)	34	84	22	173	101	0	179	88	7	107	324
Queue Length 95th (ft)	72	121	89	#260	142	54	#354	146	17	#203	#461
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	226	426	612	517	604	708	298	1538	1232	198	1296
Starvation Cap Reductn	0	0	0	0	0	0	65	782	317	0	0
Spillback Cap Reductn	0	0	80	46	0	0	0	0	0	0	179
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.26	0.54	0.88	0.22	0.24	0.94	0.50	0.49	0.68	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	234	471	634	1530
v/c Ratio	0.55	0.76	0.49	0.74
Control Delay	22.3	18.5	11.1	9.3
Queue Delay	0.0	0.1	0.1	1.1
Total Delay	22.3	18.6	11.2	10.4
Queue Length 50th (ft)	72	81	62	50
Queue Length 95th (ft)	110	149	130	#398
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	787	1281	2061
Starvation Cap Reductn	0	0	0	283
Spillback Cap Reductn	0	13	59	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.61	0.52	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	100	148	256	399	222	243	324	560	362	126	410
v/c Ratio	0.52	0.60	0.56	0.87	0.75	0.53	1.09	0.37	0.31	0.72	0.32
Control Delay	58.9	57.3	9.6	69.4	62.0	13.3	119.3	25.8	2.8	74.1	26.6
Queue Delay	0.0	0.0	0.0	0.8	0.0	0.0	6.3	1.4	0.3	0.0	0.0
Total Delay	58.9	57.3	9.6	70.2	62.0	13.3	125.6	27.2	3.1	74.1	26.6
Queue Length 50th (ft)	78	112	0	170	166	28	~298	138	10	100	96
Queue Length 95th (ft)	134	158	65	#252	231	95	m#492	234	42	#213	164
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	194	426	612	484	560	690	297	1527	1170	183	1293
Starvation Cap Reductn	0	0	0	0	0	0	61	734	370	0	0
Spillback Cap Reductn	0	0	0	11	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.35	0.42	0.84	0.40	0.35	1.37	0.71	0.45	0.69	0.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	315	623	660	911
v/c Ratio	0.57	0.84	0.52	0.50
Control Delay	19.6	23.4	12.1	4.8
Queue Delay	0.0	1.1	0.3	0.3
Total Delay	19.6	24.6	12.4	5.1
Queue Length 50th (ft)	83	128	112	95
Queue Length 95th (ft)	146	#259	m172	28
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	829	1262	1824
Starvation Cap Reductn	0	0	0	372
Spillback Cap Reductn	0	67	170	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.82	0.60	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	28	84	219	454	101	179	169	379	478	142	938
v/c Ratio	0.14	0.44	0.57	0.81	0.30	0.37	0.78	0.25	0.38	0.75	0.65
Control Delay	44.6	54.6	11.6	59.7	45.5	8.1	71.6	23.7	1.5	75.2	33.1
Queue Delay	0.0	0.0	0.1	1.5	0.0	0.0	2.6	0.7	0.4	0.0	1.1
Total Delay	44.6	54.6	11.7	61.2	45.5	8.1	74.3	24.4	1.9	75.2	34.2
Queue Length 50th (ft)	19	64	0	187	76	0	138	89	5	112	288
Queue Length 95th (ft)	50	96	59	#301	112	55	#250	152	17	#220	#440
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	214	426	583	561	604	712	231	1495	1246	202	1440
Starvation Cap Reductn	0	0	0	0	0	0	17	766	320	0	0
Spillback Cap Reductn	0	0	20	29	0	0	0	0	0	0	269
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.20	0.39	0.85	0.17	0.25	0.79	0.52	0.52	0.70	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	250	451	651	1500
v/c Ratio	0.60	0.74	0.92dl	0.72
Control Delay	24.2	17.2	11.7	10.0
Queue Delay	0.0	0.0	0.0	0.8
Total Delay	24.2	17.3	11.7	10.8
Queue Length 50th (ft)	79	74	64	312
Queue Length 95th (ft)	118	137	140	297
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	789	1206	2079
Starvation Cap Reductn	0	0	0	275
Spillback Cap Reductn	0	11	24	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.58	0.55	0.83

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	87	174	424	158	244	234	566	402	130	369
v/c Ratio	0.29	0.45	0.50	0.90	0.53	0.49	0.79	0.35	0.33	0.72	0.27
Control Delay	51.9	54.8	11.3	73.2	52.5	8.5	63.1	23.5	2.7	73.8	26.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	31.9	1.3	0.4	0.0	0.0
Total Delay	51.9	54.8	11.3	73.3	52.5	8.5	94.9	24.9	3.1	73.8	26.1
Queue Length 50th (ft)	39	66	0	182	119	0	177	134	11	103	87
Queue Length 95th (ft)	78	100	56	#278	167	65	m#317	228	48	#223	156
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	189	426	550	484	560	719	297	1609	1216	186	1370
Starvation Cap Reductn	0	0	0	0	0	0	68	798	384	0	0
Spillback Cap Reductn	0	0	0	1	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.20	0.32	0.88	0.28	0.34	1.02	0.70	0.48	0.70	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	320	587	691	860
v/c Ratio	0.61	0.82	0.58	0.46
Control Delay	21.6	22.1	12.2	4.2
Queue Delay	0.0	0.3	0.1	0.3
Total Delay	21.6	22.3	12.4	4.5
Queue Length 50th (ft)	91	119	121	89
Queue Length 95th (ft)	148	216	184	m11
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	832	1191	1890
Starvation Cap Reductn	0	0	0	432
Spillback Cap Reductn	0	28	64	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.73	0.61	0.59

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	31	96	264	454	104	179	184	379	478	142	939
v/c Ratio	0.15	0.48	0.63	0.81	0.30	0.37	0.78	0.26	0.39	0.75	0.68
Control Delay	44.6	55.6	12.8	59.7	45.3	8.1	69.5	24.1	1.6	75.2	34.9
Queue Delay	0.0	0.0	0.4	1.9	0.0	0.0	7.1	0.7	0.4	0.0	1.3
Total Delay	44.6	55.6	13.2	61.6	45.3	8.1	76.6	24.8	2.0	75.2	36.2
Queue Length 50th (ft)	21	73	7	187	79	0	150	89	7	112	300
Queue Length 95th (ft)	53	107	69	#301	114	55	#280	152	19	#220	#441
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	217	426	611	561	604	712	243	1478	1240	202	1384
Starvation Cap Reductn	0	0	0	0	0	0	31	758	326	0	0
Spillback Cap Reductn	0	0	85	34	0	0	0	0	0	0	240
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.23	0.50	0.86	0.17	0.25	0.87	0.53	0.52	0.70	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	250	459	659	1545
v/c Ratio	0.58	0.75	0.93dl	0.75
Control Delay	23.4	17.7	12.3	10.4
Queue Delay	0.0	0.1	0.1	0.9
Total Delay	23.4	17.8	12.3	11.3
Queue Length 50th (ft)	78	78	67	323
Queue Length 95th (ft)	118	143	144	#449
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	608	785	1175	2060
Starvation Cap Reductn	0	0	0	248
Spillback Cap Reductn	0	12	32	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.59	0.58	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	94	203	424	170	244	286	566	402	130	373
v/c Ratio	0.31	0.47	0.54	0.90	0.56	0.49	0.96	0.36	0.33	0.70	0.27
Control Delay	52.6	55.4	11.2	73.2	52.9	8.3	85.7	23.7	2.7	71.1	26.2
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0	42.3	1.6	0.4	0.0	0.0
Total Delay	52.6	55.4	11.2	73.7	52.9	8.3	127.9	25.3	3.1	71.1	26.2
Queue Length 50th (ft)	41	71	0	182	128	0	225	136	14	102	88
Queue Length 95th (ft)	81	106	59	#278	178	65	m#413	223	49	#236	157
Internal Link Dist (ft)		1012			2438			197			1407
Turn Bay Length (ft)	100		100	145		80	65			90	
Base Capacity (vph)	186	426	572	484	560	719	297	1586	1208	187	1361
Starvation Cap Reductn	0	0	0	0	0	0	65	802	391	0	0
Spillback Cap Reductn	0	0	0	4	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.35	0.88	0.30	0.34	1.23	0.72	0.49	0.70	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	320	612	715	888
v/c Ratio	0.58	0.83	0.64	0.49
Control Delay	19.9	23.2	13.9	4.8
Queue Delay	0.0	0.8	0.5	0.3
Total Delay	19.9	24.0	14.4	5.1
Queue Length 50th (ft)	85	127	133	94
Queue Length 95th (ft)	148	#248	191	m17
Internal Link Dist (ft)	1012		403	197
Turn Bay Length (ft)		415		
Base Capacity (vph)	643	823	1122	1826
Starvation Cap Reductn	0	0	0	393
Spillback Cap Reductn	0	54	121	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.80	0.71	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 725)
464 WEST 4th STREET, 6th FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 388-7017
FAX (909) 383-5936
TTY 711
www.dot.ca.gov/dist8

Serious Drought. Help save water!

October 21, 2015 **File: 08-SBd-215-PM 14.10**

Oliver Mujica
City of San Bernardino
300 "D" Street, 3rd Floor
San Bernardino, CA 92418

Dear Mr. Mujica:

Rancho Palma - Traffic Impact Analysis

B-1 Thank you for providing the California Department of Transportation (Department) the opportunity to review and comment on the Traffic Impact Analysis (TIA) for the City of San Bernardino Rancho Palma Project (Project). The project is located on northeast of W. Little League Drive and northwest of Palm Avenue, in the City of San Bernardino. It is proposed to include the development of 120 single family detached residential dwelling units and 98,000 square feet of commercial retail use.

B-2 As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As the responsible agency under the California Environmental Quality Act, it is also our responsibility to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of San Bernardino, due to the project's potential impact to the State facilities, it is also subject to the policies and regulations that govern the SHS. We offer the following comments regarding the analysis of the TIA:

B-3
- To ensure that proposed site grading and drainage design does not result in an adverse impact to State R/W, we ask that a requirement to review plans and provide written construction clearance be included among the project conditions of approval. Submit two hard and electronic copies of site grading and drainage plans, prior to issuance of construction permits.

B-4
- Consider the outer separation barrier between Interstate-215 (I-215) and Little leaguer Drive. See Highway Design Manual Section 310 and Traffic Manuel Section 7-05.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Comment Letter B - California Department of Transportation, October 21, 2015

B-1 See Response A-1.

B-2 See Response A-2.

B-3 A Condition of Approval will be adopted to ensure that Caltrans is provided with the project grading and drainage improvement plans for review, prior to City issuance of any construction permits.

B-4 See Response A-5.

B-5 • Provide the queue length on Palm Avenue between Little League/Kendall Drive and Palm Avenue and I-215 WB ramps.

B-6 • Review Pass-by trip reduction and consult with the Department for reductions greater than 15%.

B-7 • Submit the Electrical Design plans for review.

B-8 • Coordinate/revise timing at the three key intersections, including Palm Avenue and Little League Drive/Kendall Drive and Palm Avenue at I-215 SB and NB ramps, once the Project is completed.

B-9 • Widen and/or re-stripe Palm Avenue at I-215 SB Ramps approach to provide second left-turn lane as noted in Table 1-10 "Recommended Improvements."

B-10 The Department is committed to providing a safe transportation system for all users. We encourage the City to embark a safe, sustainable, integrated and efficient transportation system and complete street to enhance California's economy and livability. A pedestrian/bike-friendly environment served by multimodal transportation would reduce traffic congestion prevalent in the surrounding areas. We offer the following comments:

B-11 • Coordinate with OmniTrans to extend Route 2 and/or SbX, locate transit stops to serve the area in the immediate vicinity of the proposed Project, and to reduce Vehicle Miles Traveled (VMT) and Greenhouse Gases, which are the primary goals of the 2040 California Transportation Plan. Also, it is recommended to provide preferential parking for vanpools and carpools within the project site due to the expected VMT increase within the project area.

B-12 • The Department supports a project that fosters a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility (See *Complete Street Implementation Action Plan 2.0* at http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/CSIAP2_rpt.pdf).

B-13 • When the City considers striping the street to include a bicycle facility, we encourage the City to utilize roadway configurations and design standards found in the National Association of City Transportation Officials' Urban Street Design Guide and the Urban Bikeway Design Guide. It appears that the San Bernardino County Non-Motorized Transportation Plan calls for Class II Bike Lane along Palm Avenue and no bike path along Little League Drive in the vicinity of the project. We recommend the provision of a Class IV Protected Bike Lane due to high average number of bicycle collisions per year and

Comment Letter B - California Department of Transportation, October 21, 2015

B-5 See Response A-6.

B-6 See Response A-7.

B-7 See Response A-8.

B-8 See Response A-9.

B-9 The improvement recommended in Table 1-10 of the Traffic Impact Analysis (prepared by Urban Crossroads, September 2015) to provide a second southbound (SB) left turn lane on Palm Avenue at the I-215 SB ramps is required under Horizon Year (2035) Without Project traffic conditions. The project applicant will be required to make payment of fair share fees towards this improvement, which is included in the City of San Bernardino Development Impact Fee (DIF) program for local and regional improvements. The project applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates in effect at the time when payment is required. The project applicant's payment of the requisite DIF fees pursuant to the DIF Program will mitigate project impacts to DIF funded facilities.

B-10 See Response A-10.

B-11 See Response A-11.

B-12 See Response A-10. Site adjacent roadway improvements would be those required by the final Conditions of Approval for the proposed project and applicable City of San Bernardino roadway design standards.

B-13 The City of San Bernardino will determine appropriate roadway cross-sections for roadways within its jurisdiction. Any site adjacent roadway improvements would be those required by the final Conditions of Approval for the proposed project and applicable City of San Bernardino roadway design standards. Refer also to Figure 2-6, Streetscape Sections, of the Draft EIR.

B-13, continued

potential safety issues. (See Urban Bikeway Design Guide at http://nacto.org/wp-content/uploads/2011/03/NACTO_UrbanBikeway_DesignGuide_LRez.pdf).

All comments should be addressed and TIA should be resubmitted prior to proceeding with the Encroachment Permit Process. Issuance of a Caltrans Encroachment Permit will be required for any work or construction performed within, under, or over the State Right-of-Way. Review and approval of street, grading, and drainage construction plans will be necessary prior to permit issuance. Information regarding permit application and submittal requirements may be obtained at:

B-14

Caltrans Office of Encroachment Permits
464 West 4th Street, Basement, MS 619
San Bernardino, CA 92401-1400
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Please continue to keep us informed of this project and other future updates, which could potentially impact the SHS and interfacing transportation facilities. If you have any questions or need to contact us, please do not hesitate to contact Adrineh Melkonian at (909) 806-3928 or myself at (909) 383-4557.

Sincerely,

MARK ROBERTS
Office Chief
Intergovernmental Review, Community and Regional Planning

Comment Letter B - California Department of Transportation, October 21, 2015

B-14 Comment noted. If an encroachment permit is required, the project applicant will resubmit the TIA to Caltrans, along with street, grading, and drainage construction plans, for review, prior to the issuance of the permit.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:
mujica_ol@city.org

August 19, 2016

Oliver Mujica, Planning Division Manager
City of San Bernardino
300 N "D" Street – 3rd Floor
San Bernardino, CA 92418

Draft Environmental Impact Report for the Proposed Rancho Palma Development Project

C-1 The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are intended to provide guidance to the lead agency and should be incorporated into the Final Environmental Impact Report (EIR) as appropriate.

The proposed Project is the construction of 120 single family homes. The Project is approximately 80 feet northeast of Interstate 215. The lead agency quantified the project's construction and operation air quality impacts and has compared those impacts with the SCAQMD's recommended regional and localized daily significance thresholds. Based on its analyses, the lead agency has determined that construction and operational air quality impacts are less than significant.

C-2 The lead agency also conducted a Health Risk Assessment (HRA) to determine the long-term air quality impacts from vehicles operating on the Interstate 215 to the future residents. The HRA found that maximum cancer risk from the freeway is 8.91 in one million, which is less than the SCAQMD significance threshold of 10 in one million. The SCAQMD staff has concerns about the assumptions used in the modeling, which likely underestimates the health risks.

C-3 The HRA analysis used separate discrete receptors placed in residential areas. Receptors should be placed at the boundaries of the residential property and not the location of the residential structure. Residents are still exposed to pollutants while outside of their homes, e.g. children playing outdoors, around a pool area, residents relaxing or walking outside, working outside on a balcony, cleaning a vehicle, etc. SCAQMD staff recommends that the lead agency revise the HRA using appropriate locations.

C-4 Additionally, SCAQMD staff recommends that the Lead Agency revise the HRA to include a receptor grid of no more than 100-meter spacing over the existing residences and areas zoned or planned for residential development, in order to ensure that the maximum impacts to a residential receptor are properly analyzed.

Comment Letter C – South Coast Air Quality Management District, August 19, 2016

C-1 Comment noted. The commenter is correct that the Draft EIR determined that construction and operational air quality impacts are less than significant.

C-2 The EMFAC2014 modeling software, developed by the California Air Resources Board (CARB), was utilized to identify pollutant emission rates for total organic gases (TOG), diesel particulates, particulates (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), and nitrogen oxide (NO_X) compounds. To produce a representative vehicle fleet distribution, the assessment utilized CARB's San Bernardino County population estimates for the 2020 calendar year as a conservative measure. This approach provides an estimate of vehicle mix associated with operational profiles at the link or intersection level. In order to assess the impact of emitted compounds on individuals who reside at the proposed development, air quality modeling utilizing the AMS/Environmental Protection Agency (EPA) Regulatory Model, AERMOD was performed to assess the downwind extent of mobile source emissions located within a ¼ mile radius of the project site. AERMOD's air dispersion algorithms are based upon a planetary boundary layer turbulence structure and scaling concepts, including the treatment of surface and elevated sources in simple and complex terrain. The modeling analysis also considered the spatial distribution of mobile source activity traversing the freeway in relation to the proposed site. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each volume source location. On-site receptors were placed to provide coverage across the identified project boundary. Refer also to Appendix 3.2-2, Mobile Source Air Toxic Health Risk Assessment, of the Draft EIR for additional information.

C-3 To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each volume source location. On-site receptors were placed to provide coverage across the identified project boundary, not just the location of residential structures. A graphical representation of the source-receptor grid network is provided in Exhibit 4-A, Source Receptor Grid Network, of Appendix 3.2-2 of the Draft EIR.

C-4 See Response C-3. As stated on page 3.2-17 of the Draft EIR, the proposed residential land uses could be negatively affected by diesel PM emissions from heavy-duty delivery truck trips as well as traffic on Interstate 215, which is adjacent to the project site. As a part of the

C-5 SCAQMD staff observed a rail line southwest of the proposed Project. By not including emissions for the rail line source in the HRA, cancer risk impacts are likely underestimated. SCAQMD staff recommends that the lead agency update the HRA to include emissions from the rail line.

C-6 The SCAQMD staff is available to work with the Lead Agency to address these concerns and any other air quality questions that may arise. Please contact Jack Cheng, Air Quality Specialist at (909) 396-2448, if you have any questions regarding these comments. We look forward to reviewing and providing comments for the Final EIR associated with this project.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning & Rules Manager
Planning, Rule Development & Area Sources

JW:JC
SBC160712-01
Control Number

environmental analysis, Urban Crossroads completed a health risk assessment entitled Rancho Palma Mobile Source Air Toxic Health Risk Assessment to address the potential exposure of sensitive receptors to substantial concentration of the toxic air contaminant (TAC) of diesel PM. As previously noted, discrete, on-site receptors were placed to provide coverage across the identified project boundary. Refer to Exhibit 4-A, Source Receptor Grid Network, of Appendix 3.2-2 of the Draft EIR.

C-5 There is a rail line located approximately 1,245 feet to the south of the project site. In 2005, CARB published an informational guide entitled *Air Quality and Land Use Handbook: A Community Health Perspective*. The purpose of this guide is to provide information to aid local jurisdictions in addressing issues and concerns related to the placement of sensitive land uses near major sources of air pollution. The handbook includes recommended separation distances for various land uses. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 1,000 feet of a "service and maintenance rail yard" should be avoided when possible. This 1,000-foot buffer was developed to protect sensitive receptors from exposure to diesel PM. Rail yards are a major source of diesel PM air pollution. They are usually located near inter-modal facilities, which attract heavy truck traffic. Not only is the proposed project located at a distance of greater than 1,000 feet from the existing rail line, the rail line is distinct from a rail yard in that multiple trains are not simultaneously present, and idling. Therefore, analysis of the rail line was not included in the HRA.

C-6 Comment noted. If questions arise regarding the comments, SCAQMD will be contacted.

825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.7676
www.SBCounty.gov

SAN BERNARDINO COUNTY

Department of Public Works
Environmental & Construction • Flood Control
Operations • Solid Waste Management
Surveyor • Transportation

Gerry Newcombe
Director

August 31, 2016

City of San Bernardino
Community Development Department
Planning Division
Attn: Oliver Mujica
300 North "D" Street
San Bernardino, CA. 92418
Mujica_ol@sbcity.org

File: 10(ENV)-4.01

RE: CEQA - NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE RANCHO PALMA PROJECT FOR THE CITY OF SAN BERNARDINO

Dear Mr. Mujica:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on July 11, 2016** and pursuant to our review, the following comments are provided:

Water Resources Division (Mary Lou Mermilliod, PWE III, 909-387-8213):

D-1

1. Due to the proximity of the San Bernardino County Flood Control District (District) Cable Creek Channel, the District recommends a Flood Hazard Review for this Tentative Tract. The County code sets the fee for this review and analysis at $1,701.00. This fee is submitted directly to the District Office with an indication that is for Flood Hazard Review of ID #83692, File 10454. The fee should be mailed to:

   San Bernardino County Flood Control District
   Water Resources Division
   825 E. Third Street, Room 142
   San Bernardino, CA 92415

Flood Control Planning Division (David Lovell, PWE III, 909-387-7964):

D-2

1. Any works and/or encroachments affecting the District facilities and/or right-of-way would need a District's Permit.

D-3

2. It appears that portions of the proposed project are impinging upon the existing levee and access road. It also appears that the existing levee and access road at this reach are located outside of the District's easement area of Cable Creek. Prior to issuance of any permits by the District, a right-of-way transaction should be required for this project in order to perfect the right-of-way for this reach.

BOARD OF SUPERVISORS

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Comment Letter D – San Bernardino County, Department of Public Works, August 31, 2016

D-1 As indicated under Impact 3.8-4 of the Draft EIR, the project site is located west of the Cable Creek Channel that is provisionally accredited by the United States Army Corps of Engineers. The provisional accreditation means that the levee could potentially be 'decertified' at a later date resulting in the area being mapped in a different flood zone. It is unknown at this time what the resulting flood classification would be if the levee is decertified. Chapter 19.16 of the City of San Bernardino Municipal Code regulates construction in Flood Insurance Rate Map (FIRM) flood zones. The property is not in a mapped flood zone. However, if the levee were to be decertified, the map would be revised to indicate the appropriate flood zone. Generally, the Municipal Code prohibits construction in a floodway, and requires that floor elevations be raised above the calculated flood level in a floodplain. This can be accomplished through import of soil, grading of the site, or different building techniques.

If the levee is decertified after buildings have been constructed on the site, a method of protection from flooding would be needed to avoid the need to raise the finished floor elevations of existing buildings. The design engineer for the project has stated that options could include reconstruction of the levee to meet certification standards, widening of the levee, or construction of a floodwall. All of these solutions can occur within the footprint of the existing levee, and with access provided to the levee. The proposed project would not preclude work necessary to re-certify the levee that would subsequently ensure the Zone X flood classification as shown on the FIRM.

The proposed project would construct homes and buildings adjacent to the Cable Creek Channel, but would not result in any in-channel construction that could impede or redirect flood flows. The proposed project is outside of the 100-year flood zone, and would not impede any future construction that may be required to ensure flood protection for the site.

A Flood Hazard Review is recommended by the Department of Public Works. The project applicant would comply such requirements, as deemed applicable.

D-2: If project activities affect the District facilities or right-of-way, a permit will be obtained. However, the proposed project would not result in any in-channel construction that could impede or redirect flood flows. Further, the proposed project would not impede any future construction that may

D-4

Traffic Division (Ed Petre, PWE III, 909-387-8239):

1. The intersection of N. Little League Dr. and Kendall falls within the County of San Bernardino jurisdiction, not the City of San Bernardino.

If you have any questions, please contact the individuals who provided the specific comment, as listed above.

Sincerely,

NIDHAM ARAM ALRAYES, MSCE, PE, QSD/P
Public Works Engineer III
Environmental Management

NAA:sr

Comment Letter D – San Bernardino County, Department of Public Works, August 31, 2016

be required to ensure flood protection for the subject property. Thus, it is not anticipated that a permit will be necessary.

D-3 See Response D-2. As appropriate, the project applicant would enter into a right-of-way transaction, should such a transaction be required.

D-4 Comment noted. Table 3.12-1 and Table 3.12-4 of the Draft EIR have been revised to reflect this correction. See Section 3.2, Minor Errata to the Draft EIR, of the Final EIR for these text revisions.

SoCal Environmental Justice Alliance
Green Jobs & Clean Communities

August 5, 2016

VIA US MAIL AND EMAIL

City Planning Commission & City Council
Community Development Department
City of San Bernardino
300 North "E" Street, 3rd Floor
San Bernardino, CA 92418

Oliver Mujica, Project Planner
Community Development Department
City of San Bernardino
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mujica_ol@sbcity.org

SUBJECT: COMMENTS ON RANCHO PALMA PROJECT

To whom it may concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Rancho Palma Project. Please accept and consider these comments on behalf of SoCal Environmental Justice Alliance.

E-1

Noise Impacts

The DEIR Noise Study states that construction is *expected* to occur in 5 stages. The DEIR Project Summary states that it is *"anticipated* that the Rancho Palma Specific Plan would be constructed over two phases" (DEIR page ES-2). The DEIR is inconsistent in stating the project length and is thus erroneous in projecting all possible impacts.

E-2

The Project Summary continues to state "The proposed phasing does not preclude the project applicant's ability to construct all of the necessary project infrastructure in Phase 1, nor does it preclude the applicant's ability to construct both Phases 1 and 2 simultaneously" (DEIR page ES-2). However, phased construction is not *required* of the Project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement the construction phases will not occur concurrently. There *is* a statement that the applicant will have the ability to construct both Phases 1 and 2 simultaneously.

Comment Letter E – SoCal Environmental Justice Alliance, August 5, 2016

E-1 The reference to five stages referred to in the Noise Impact Analysis (page 79) concerns the five different construction stages of the proposed project: site preparation, grading, building construction, architectural coatings, paving. These "stages" are not the same as the phases of the proposed project, but as is stated in the Noise Analysis, are the various construction stages. The phases referred to on page ES-2 are related to the two phases of the proposed development. Both of these phases will have similar construction stages.

E-2 See Response E-1. With regard to the environmental analysis, phasing of a project generally affects the construction air quality analysis, the construction greenhouse gas (GHG) analysis, construction noise, and construction traffic. All other impact areas (e.g. aesthetics, biological resources, cultural resources, hazards, hydrology and water quality, land use, public services and utilities, etc.) are generally analyzed as a construction or completed project condition where the actual timing of the phases of the project have little to no bearing on the environmental analysis. For example, biological resources are analyzed for impacts during construction as well as post-construction. The phase, whether one phase or two phases, have the same effect on those resources regardless of the phase.

In the case of the proposed project, both construction noise and construction traffic have been analyzed as a continuous construction until completed project condition. In other words, construction noise and traffic would occur until the project is completed and is not dependent on the phase of the project, although noise levels may be slightly increased if both phases occur simultaneously. Noise levels depicted in *Table 3.10-8* of the EIR are maximum noise levels (peak activity), which would occur sporadically when construction equipment is operated in proximity to sensitive receptors. Given the sporadic and variable nature of project construction and the implementation of noise limits specified in the Municipal Code, noise impacts would be reduced to a less than significant level. Additionally, mitigation is proposed, as appropriate, to reduce potential impacts on sensitive receptors resulting from project construction noise to less than significant.

As noted above, each of these phases consists of five different construction stages: site preparation, grading, building construction, architectural coatings, and paving, as provided in the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land

E-3 The Noise Study is deficient and does not account for the "worst-case scenario" or all possible scenarios in which the impacts are more significant than the best-case scenario presented.

E-4 Further, these significant impacts to sensitive receptors near the project site must be represented accurately. The DEIR must be revised to fully disclose an accurate estimation of noise impacts from the proposed project.

E-5 The DEIR references Section 8.54.060(I) Exemptions of the Noise Control Ordinance in the San Bernardino Municipal Code. The DEIR states that the code section "indicates that project construction noise levels are considered exempt from the provisions of the ordinance. Therefore, if project construction only occurs during the hours permitted in the Noise Control Ordinance, project construction noise levels would be exempt from the ordinance". However, the full code section reads verbatim that "Construction, repair, or excavation work performed pursuant to a *valid written agreement* with the City, or any of its political subdivisions, *which provides for noise mitigation measures*."

The DEIR does not require the Project to complete a valid written agreement with the City which provides for mitigation measures. The DEIR states that by assuming the project construction will occur within the legal hours of construction within the City, it is exempt from the Noise Control Ordinance. The DEIR fails to fully disclose to the public and decision-makers the actual requirements of the Noise Control Ordinance. The DEIR and its Noise Study must be revised to fully disclose and analyze these impacts and offer potential mitigation measures.

Air Quality Impacts

E-6 The DEIR states that Project construction is anticipated to be completed in 2019. However, as with noise impacts, phased construction is not required of the Project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

E-7 Further, data provided in the Air Quality Analysis is not organized into phases as the DEIR assumes/relies on. Thus, the emissions rates provided are irrelevant and not an accurate estimation of the air quality impacts.

E-8 The "less than significant" impacts do not have a reliable or accurate basis. The DEIR is inconsistent with the proposed Project description of "phased" construction and the air quality construction emissions rates presented as not-phased. The DEIR must be revised to fully disclose to the public and decision-makers the most accurate, "worst-case scenario" impacts the Project will have with regard to air quality.

E-9 There is no analysis of air quality impacts from daily construction removal offsite and for refueling offsite.

use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals. This model is the most current emissions model approved for use in California by the California Air Resources Board (CARB). The two individual construction phases were modeled as occurring back to back in order to estimate construction-generated emissions from continuous construction activities over a timeframe of two years and four months to develop both phases of the project.

While it is acknowledged that the project could be constructed in one phase, modeling the projected emissions under this assumption would not result in noticeably different emission estimates compared with two construction phases, since the total duration of all construction would be the same (two years and four months). As described in the CalEEMod User's Guide, the estimated default construction phase lengths and construction equipment in the modeling software are based on total project acreage. As such, the phasing of the project would not substantially change the findings of the environmental analysis completed for the proposed project.

E-3 Section 3.10, Noise, of the Draft EIR analyzes the effects of construction-generated noise and operational noise associated with the project. Predicted construction-generated noise levels at nearby noise-sensitive land uses were calculated utilizing typical noise levels and usage rates associated with construction equipment, derived from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (Version 1.1). The estimated roadway noise impacts from vehicular traffic associated with project operations were calculated using a computer program that replicates the FHWA Traffic Noise Prediction Model-FHWA-RD-77-108. The FHWA model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width e.g., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); the travel speed; the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume; the roadway grade; the angle of view (e.g., whether the roadway view is blocked); the site conditions (hard or soft relates to the absorption of the ground, pavement, or landscaping); and the percentage

of total ADT that flows each hour throughout a 24-hour period. The estimated stationary-source (e.g., rooftop air conditioning units, shopping cart corrals, parking lot vehicle movements, and loading dock activities) noise impacts associated with project operations were assessed by Urban Crossroads, Inc., a Certified Acoustical Consultant firm. The projected noise levels shown in Table 3.10-12, Reference Noise Level Measurements, of the Draft EIR (page 3.10-20) assume the worst-case noise environment with the rooftop air conditioning units, shopping cart corrals, parking lot vehicle movements, and loading dock activities all operating simultaneously. In reality, these noise level impacts would vary throughout the day. Contrary to the commenter's assertion, CEQA does not require analysis of a worst case or all possible scenarios. Rather, CEQA requires analysis of the reasonably foreseeable impacts from the proposed project.

E-4 Section 3.10, Noise, of the Draft EIR analyzes the effects of construction-generated noise and operational noise associated with the project. The Draft EIR fully discloses an accurate estimation of noise impacts from the proposed project, in compliance with adopted federal, State, and local regulations and significance criteria pertaining to the evaluation of potential noise effects resulting with development projects. Mitigation is proposed, as appropriate to reduce potential impacts on sensitive receptors resulting with project construction and operational noise. Such mitigation measures are adequate to reduce potential impacts to less than significant.

E-5 As shown on page 3.10-23 of the Draft EIR, construction-related noise mitigation measures are required of the project, including the incorporation of noise barriers to protect sensitive receptors located in the vicinity of the project site. Consistent with the requirements of CEQA, the project applicant would be required to prepare and implement a Mitigation Monitoring and Reporting Program (MMRP). A MMRP is a binding document and would be applicable to short-term construction and long-term operations, and would serve as the valid written agreement between the project applicant and the City to ensure that the mitigation measures adopted with final approval of the project are properly implemented.

E-6 See Response E-2.

E-7 See Response E-2.

Comment Letter E – SoCal Environmental Justice Alliance, August 5, 2016

E-8 As indicated above, Project construction emissions were estimated with the CalEEMod modeling software. The CalEEMod is the most current emissions model approved for use in California by CARB. However, it is acknowledged that the project could be constructed in one phase; nonetheless, modeling the projected emissions under this assumption would not result in substantially different emission estimates compared with two construction phases, since the total duration of all construction activities would be the same (two years and four months). As described in the CalEEMod User's Guide, the estimated default construction phase lengths and construction equipment in the modeling software are based on total project acreage. As such, the phasing of the project would not change the environmental analysis completed for the proposed project. No further analysis is required.

E-9 A site-specific grading plan has not yet been prepared for the project as proposed. A grading plan will be prepared at a future date, consistent with City of San Bernardino engineering design requirements, when project-specific development is proposed. Section 3.4, Construction Emissions, of the Air Quality Impact Analysis, and Section 3.2.3 of the Draft EIR present the analysis of potential air quality emissions associated with project construction activities. The analysis considers the effects of construction workers commuting to and from the project site over the duration of construction. Additionally, construction staging of vehicles and equipment would occur on-site, and the refueling of construction vehicles off-site is not anticipated; rather a fuel truck would likely be periodically brought to the site on limited occasion as needed. The analysis in the technical study and Draft EIR do consider the vehicle trips generated by construction workers commuting to and from the site.

E-10

The DEIR use of SCAQMD LST modeling for a 3.5 or 4 acre site is not appropriate as the proposed project site is 41.6 acres. As stated by SCAQMD, "The LST mass rate look-up tables only apply to projects that are less than or equal to five acres....In the event that the project area exceeds five acres, it is recommended that lead agencies perform project-specific air quality modeling for these larger projects." (http://www.aqmd.gov/ceqa/handbook/lst/lst.html). The proposal that 3.5 or 4 acres may be disturbed a day is immaterial. The DEIR states that the Project "*could* actively disturb approximately 3.5 acres per day during the peak site preparation phase and 4 acres per day during the peak grading phase". Since the Project site is 41.6 acres, the Project *could* actively disturb up to 41.6 acres per day. Project specific modeling must be prepared for this potential impact, particularly where residential uses are located in close proximity to the Project site.

E-11

Further, LSTs will apply to the long-term operational activity of the project. The proposed 98,000 square feet of retail area will attract mobile sources that spend long periods queuing and idling at the site daily. 98,000 square feet of retail area will attract deliveries multiple times daily that require mobile emissions sources (trucks) to idle and queue for long periods of time while deliveries are unloaded. LSTs must be analyzed in the DEIR for long-term operational activity of the project.

Traffic Impacts

E-12

The DEIR indicates the applicant will be required to "construct *or* pay its fair share to create a second southbound turn lane at the intersection of University Parkway/Kendall Drive (#19)". However, if the applicant chooses to pay a fee, there is no timeline given for construction of the additional turn lane or a deadline by which it must be built. There is no statement of which program or funding source the payment will go towards or if this program is already established. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees here is not adequate as there is no evidence mitigation will actually result. Mitigation measure TRA-1 is uncertain and improperly deferred in violation of CEQA.

Project Alternatives

E-13

The alternatives analysis fails to satisfy CEQA's requirements. CEQA requires an EIR consider a "reasonable range" of project alternatives. The DEIR considers only a no commercial use alternative and an increased commercial use alternative beyond CEQA's mandatory "no project" alternative. The evaluation of the no commercial use alternative is not compatible when comparing the impacts against the proposed Project. The Project site has a General Plan and zoning designation of CG-1. Removing the commercial use from the Project entirely makes the

Comment Letter E – SoCal Environmental Justice Alliance, August 5, 2016

E-10 As stated on page 3.2-19 of the Draft EIR, the SCAQMD has established that impacts to air quality are significant if there is a potential to contribute to or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs), which represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor.

According to the South Coast Air Quality Management District (SCAQMD), the use of LSTs are "voluntary, to be implemented at the discretion of local public agencies acting as a lead agency pursuant to the California Environmental Quality Act (CEQA)" and "lead agencies have the discretion to identify appropriate thresholds and analysis methodologies."

(see also http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-andbook/localized-significance-thresholds). The Draft EIR makes use of methodology included in the SCAQMD Final Localized Significance Threshold Methodology.

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of the project are above or below state standards. Therefore, the SCAQMD LSTs are based on the ambient concentrations of pollutants within the project source receptor area (SRA) as determined by SCAQMD air pollutant modeling (as demarcated by the SCAQMD, the project site is located in SCAQMD SRA 34).

LSTs are identified by the SCAQMD in LST mass rate look-up tables and calculated by pollutant dispersion modeling. Specifically, LSTs for nitrogen dioxide (NO_2) and carbon monoxide (CO) are derived by adding the incremental emission impacts from the project activity to the peak background NO_2 and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards.

Background criteria pollutant concentrations are represented by the highest SCAQMD-measured pollutant concentration in the last three years at the air quality monitoring station nearest to the project site. Fine particulate matter ($PM_{2.5}$) and course particulate matter (PM_{10}) LSTs are developed by the SCAQMD using a dispersion model to back-calculate the emissions necessary to exceed a concentration equivalent to 50 micrograms per cubic meter (µg/m3) averaged over five hours, which is the control requirement in SCAQMD Rule 403.

E-13, continued — Project less compatible with the City's General Plan and zoning designation of CG-1 which provides commercial uses for existing surrounding residential uses.

E-14 — The no-project alternative does not meet the requirements for description and analysis of a "no project" alternative pursuant to CEQA Guidelines § 15162.2(e)(3)(B). The purpose of a "no project" alternative is to provide the circumstance under which the project does not proceed. (CEQA Guidelines § 15162.2(e)(3)(B).)

E-15 — Consideration of a "build" alternative in lieu of a "no build" alternative is improper unless the failure to proceed with the project will not result in preservation of existing environmental conditions. There is no evidence this is the case here, yet the EIR assumes the development of the site.

E-16 — Additionally, the EIR does not assume "no project" would develop the site in keeping with the existing environmental setting, here with a General Plan and Zoning designation of CG-1. (CEQA Guidelines § 15162.2(e)(3)(B).) Instead, the EIR assumes the site would be developed with a mix of residential and commercial uses that would lead to development at the site "occurring at an increased rate". The EIR violates CEQA by creating and analyzing a set of artificial assumptions, and not evaluating a practical or reasonable "no project alternative" describing what would happen under existing conditions if the project were not to proceed.

Conclusion

E-17 — The DEIR Project Summary states that it is *"anticipated* that the Rancho Palma Specific Plan would be constructed over two phases" (DEIR page ES-2). Further, "The proposed phasing does not preclude the project applicant's ability to construct all of the necessary project infrastructure in Phase 1, nor does it preclude the applicant's ability to construct both Phases 1 and 2 simultaneously" (DEIR page ES-2). However, phased construction is not *required* of the Project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement the construction phases will not occur concurrently. There *is* a statement that the applicant will have the ability to construct both Phases 1 and 2 simultaneously.

E-18 — The applicant's ability to construct both Phases 1 and 2 simultaneously nullifies all projected impacts to Aesthetics and Visual 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, Noise, Population and Housing, Traffic and Transportation, and Utilities, Public Services and Recreation. The ability to construct the entire project at once indicates that all projected impacts will be much higher than the impacts studied and presented.

E-19 — Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision-makers in a fully revised and recirculated EIR in order to comply with CEQA.

Comment Letter E – SoCal Environmental Justice Alliance, August 5, 2016

The commenter is incorrect that LSTs only apply to projects that are less than or equal to five acres. The SCAQMD provides specific guidance on applying LSTs to project sites of varying acreages using the CalEEMod emissions software in its Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

(http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2)

In this guidance document, the SCAQMD instructs how to employ the CalEEMod model to determine the "maximum daily disturbed acreage for comparison to LSTs."

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of project-related construction, the following process was undertaken in the Draft EIR:

- The CalEEMod model was utilized to determine the maximum daily on-site emissions that could occur during construction activity. As stated on page 3.2-20 of the Draft EIR, project construction is anticipated to disturb a maximum of four acres in a single day.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds was used to determine the maximum site acreage that could be actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod. If the total acreage disturbed is less than or equal to five acres per day, the SCAQMD's screening look-up tables are used to determine whether a project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- It was determined that the total acreage that could be disturbed is less than five acres per day (see page 3.2-20 of the Draft EIR), and therefore the SCAQMD's screening look-up tables were utilized to determine if the project has the potential to result in a significant impact.
- *Table 3.2-8, Maximum Daily Disturbed Acreage,* of the EIR was used to determine the maximum daily disturbed acreage for use in determining the applicability of the SCAQMD's localized significance threshold look-up tables. Based on *Table 3.2-8*, the project would actively disturb approximately 3.5 acres per day

during the peak site preparation phase and 4 acres per day during the peak grading phase.

- Since the project's maximum daily disturbed acreage is less than five acres per day, the SCAQMD's localized significance threshold look-up tables were used in determining localized impacts. This methodology is consistent with recent recommendations made by SCAQMD planning staff (Urban Crossroads, 2015).

The SCAQMD's methodology clearly states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered.

E-11 As stated on page 3.2-21 of the Draft EIR, per the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing or idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, no operational LST analysis is required. Nonetheless, the proposed project is a mixed-use development where the proposed commercial land uses could potentially result in numerous heavy-duty delivery truck trips on-site. The proposed residential land uses could be negatively affected by diesel PM emissions from such heavy-duty delivery truck trips, as well as traffic on Interstate 215, which is adjacent to the project site. As described on page 3.2-17, Urban Crossroads completed a Health Risk Assessment to address the potential exposure of sensitive receptors to substantial concentrations of the toxic air contaminant (TAC), diesel PM. As determined under Impact 3.2-3 of the Draft EIR, impacts would be less than significant, and no mitigation measures are required.

E-12 As discussed on pages 3.12-17 and 3.12-18 of the Draft EIR, when off-site improvements are identified with a minor share of responsibility assigned to development, the approving jurisdiction may elect to collect a fair share contribution or otherwise require the project applicant to construct such improvements. Mitigation Measure TRA-1 requires that the proposed project either construct a second southbound turn lane at the intersection of University Parkway/Kendall Drive or make a fair share payment toward its construction. Impacts relative to the proposed project in this regard would be reduced to less than significant.

The intersection of University Parkway at Kendall Drive is anticipated to operate at unacceptable LOS E during the PM peak hour under cumulative conditions without the Project, and is anticipated to continue to operate at LOS E with the addition of Project traffic. The deficiency is not caused by the Project, but the Project contributes to a cumulative impact. The identified improvement is not covered under an existing fee program. Since the Project's contribution to the traffic for this cumulative impact is less than 5%, the Project will make a fair share payment of 4.4% towards the recommended improvement to the City of San Bernardino. The City will use these funds along with other funds collected to ensure that the improvements will be constructed at that point in time necessary to mitigate the cumulative impact.

E-13 The Draft EIR satisfies CEQA requirements regarding the development and analysis of project alternatives (CEQA Guidelines Section 15126.6). There is no requirement in CEQA that a project alternative be "comparable" to the proposed project as is asserted in the comment. Rather, the EIR must provide a "reasonable range" of alternatives that can accomplish most of the key objectives of the project while reducing at least one of the significant impacts associated with the proposed project. To that end, the focus is on environmental impacts and the purpose of an alternative is not simply to compare what entitlement may be necessary. The Draft EIR includes two development alternatives in addition to two "No-Project" scenario alternatives. The Draft EIR also includes a discussion of other alternatives that were considered but rejected as infeasible (see page 4-2). Additionally, CEQA does not require the use of only alternatives that are more compatible with existing General Plan land use and zoning designations. The comments provide no other specifics or substantiation to support the assertion that the Draft EIR does not comply with CEQA requirements for treatment of project alternatives.

E-14 As a point of clarification, the CEQA Guidelines do not include a Section 15162.2. Alternatives are discussed in Section 15126.6. As stated on page 2-10 of the Draft EIR, the proposed project includes the adoption of the Rancho Palma Specific Plan. As stated in CEQA Guidelines Section 15126.6(e)(3)(A):

"When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the "No Project" alternative will be the continuation of the existing plan, policy, or operation into the future."

In the case of the proposed project, the Specific Plan would revise the existing General Plan land use designations in the project area. The Rancho Palma Specific Plan acts as a regulatory plan and would serve to govern zoning for the site. As such, the "No Project" alternative in the Draft EIR analyzed the project site if it were to be developed with the existing General Plan land use and Zoning designations. This "No Project" alternative would continue the anticipated development for the project site as established by the General Plan land use and zoning designations of Commercial General (CG-1). Therefore, the No Project alternative is consistent with CEQA requirements for analysis of project alternatives. Further, the Draft EIR did consider the No Development alternative on page 4-2 and determined that this alternative would not achieve most of the project objectives. Therefore, the No Development alternative was rejected from further consideration. As such, the Draft EIR actually considered two "no project" alternatives and fully analyzed one using the future development potential as defined by the existing General Plan designation and zoning classification. This approach is consistent with CEQA requirements for analysis of project alternatives.

E-15 As discussed above, the Draft EIR considered two variations of the No Project alternative. However, as a point of clarification, the project site has not been reserved in the General Plan as a "no development" site. Therefore, the City considers this site to be developed at some time In the future, and as such, there are no existing environmental preservation requirements on the site. Using an alternative which anticipates that the project site will at some time be developed with land uses identified in the General Plan is proper and realistic, perhaps more realistic than assuming that the site will remain in its current state as vacant land into the future, considering it is in a developing urban area.

E-16 As stated on page 4-4 of the Draft EIR, "Under this alternative, the project site would be developed as allowed by the existing General Plan land use designation (CG-1) and zoning (CG-1) that currently apply to the subject site." As also stated on page 4-5, "Therefore, the 38 acres available on the site (does not include the 3.5-acre area comprising the Cable Creek Channel) would allow development of a maximum of 1,158,696 square feet of commercial uses." While the alternative does discuss the possibility of a variety of uses (including residential uses), commercial use is the identified potential use for the proposed project alternative, consistent with the existing General Plan land use designation.

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E-17 See Responses E-1 and E-2.

E-18 See Response E-2. As discussed in Response E-2, the ability to construct the project over one or two phases does not affect the analysis or level of impact for each environmental impact area.

E-19 See Responses E-1 and E-2. Clearly defined descriptions of work during construction of the project are not required nor possible as construction has many moving parts. While some aspects of construction (e.g. site preparation, grading, building construction, and painting) are considered in the air quality, GHG, and noise analyses, this level of construction definition is not necessary for the majority of environmental impact areas. For example, the amount of construction traffic to and from the site is based on the highest anticipated level throughout construction and is not dependent on a particular stage of construction. The evaluation of project impacts on biological resources assumes that the project site would be fully disturbed, and mitigation measures are proposed to reduce any potential impact at the earliest possible stage. The amount of equipment use or buildings built on a particular day has no bearing on the biological resources impact analysis. Therefore, clearly defined descriptions of work during construction are not necessary for proper environmental analysis.

E-20 SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

E-21 For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

Sincerely,

Joe Bourgeois
Chairman of the Board
SoCal Environmental Justice Alliance

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E-20 The City does not have an Environmental Justice Element in its General Plan.. Additionally, an EIR is not required to analyze a project against the California General Plan Guidelines.

As demonstrated in the above responses, the Draft EIR complies with all CEQA requirements, and therefore, no supplemental, amended, or other type of subsequent CEQA review is required. Furthermore, recirculation of the Draft EIR is not warranted, as none of the conditions for recirculation, as detailed in Section 15088.5 of the CEQA Guidelines, have been triggered.

E-21 Refer to Response E-20, above. As requested, the City has added socaleja@gmail.com to the CEQA distribution list for any subsequent environmental documents, public notices, public hearings, and notices of determination for the proposed project.

3.0 MINOR REVISIONS TO THE DRAFT EIR

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3.1 INTRODUCTION

This section identifies minor revisions to text of the Draft EIR.

Revisions herein do not constitute new significant information, as described in State CEQA Guidelines 15088.5. That is, the revisions do not result in new significant environmental impacts, do not constitute significant new information, and do not alter the conclusions of the environmental analysis. Changes are provided in revision marks (underline for new text and ~~strikeout~~ for deleted text).

3.2 MINOR ERRATA TO THE DRAFT EIR

The following minor changes are made to clarify the Draft EIR based on comments received on the project during the 45-day public review period and review of such comments by the City and by the technical experts responsible for the supporting studies.

3.2.1 LETTER FROM SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS

***Comment D-4**: The intersection of N. Little League Dr. and Kendall falls within the County of San Bernardino jurisdiction, not the City of San Bernardino.*

SECTION 3.12, TRAFFIC AND TRANSPORTATION

Table 3.12-1 and **Table 3.12-4** of the Draft EIR have been revised to reflect this correction. See discussion below for these changes.

Page 3.12-3, Table 3.12-1

Table 3.12-1. Intersection Analysis Locations and Current Level of Service

ID	Intersection Location	Jurisdiction	Existing LOS		CMP
			AM	PM	
1	N. Little League Drive/W. Little League Drive	City of San Bernardino	B	A	No
2	N. Little League Drive/Kendall Drive	City ~~County~~ of San Bernardino	B	B	Yes
3	Magnolia Avenue/Irvington Avenue	City of San Bernardino	B	A	No
4	Magnolia Avenue/Driveway 1 – Future Intersection	City of San Bernardino	NA		No
5	Magnolia Avenue/W. Little League Drive – Future Intersection	City of San Bernardino	NA		No
6	Driveway 2/W. Little League Drive – Future Intersection	City of San Bernardino	NA		No
7	Driveway 3/W. Little League Drive – Future Intersection	City of San Bernardino	NA		No

ID	Intersection Location	Jurisdiction	Existing LOS		CMP
			AM	PM	
8	Driveway 4/W. Little League Drive – Future Intersection	City of San Bernardino	NA		No
9	Driveway 5/W. Little League Drive – Future Intersection	City of San Bernardino	NA		No
10	Palm Avenue/Belmont Avenue	City of San Bernardino	C	A	Yes
11	Palm Avenue/Irvington Avenue	City of San Bernardino	C	B	No
12	Palm Avenue/Kendall Avenue	City of San Bernardino	D	C	Yes
13	Palm Avenue/I-215 Northbound Ramps	San Bernardino, Caltrans	A	A	Yes
14	Palm Avenue/I-215 Southbound Ramps	San Bernardino, Caltrans	C	B	Yes
15	Palm Avenue/Hallmark Parkway	City of San Bernardino	B	B	Yes
16	Pine Avenue/Belmont Avenue	City of San Bernardino	B	B	Yes
17	Pine Avenue/Kendall Drive	City of San Bernardino	C	B	Yes
18	Campus Parkway/Kendall Drive	City of San Bernardino	D	C	Yes
19	University Parkway/Kendall Drive	City of San Bernardino	D	D	Yes
Source: Urban Crossroads 2015					

Page 3.12-8, Table 3.12-4

Table 3.12-4. Traffic Signal Warrant Analysis Locations

ID	Intersection Location	Jurisdiction	CMP
1	N. Little League Drive/W. Little League Drive	City of San Bernardino	No
2	N. Little League Drive/Kendall Drive	City ~~County~~ of San Bernardino	Yes
3	Magnolia Avenue/Irvington Avenue	City of San Bernardino	No
4	Magnolia Avenue/Driveway 1 – Future Intersection	City of San Bernardino	No

ID	Intersection Location	Jurisdiction	CMP
5	Magnolia Avenue/W. Little League Drive – Future Intersection	City of San Bernardino	No
6	Driveway 2/W. Little League Drive – Future Intersection	City of San Bernardino	No
7	Driveway 3/W. Little League Drive – Future Intersection	City of San Bernardino	No
8	Driveway 4/W. Little League Drive – Future Intersection	City of San Bernardino	No
9	Driveway 5/W. Little League Drive – Future Intersection	City of San Bernardino	No
10	Palm Avenue/Belmont Avenue	City of San Bernardino	Yes
15	Palm Avenue/Hallmark Parkway	City of San Bernardino	Yes
16	Pine Avenue/Belmont Avenue	City of San Bernardino	Yes

Source: Urban Crossroads 2015

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CEQA FINDINGS OF FACT FOR THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE RANCHO PALMA SPECIFIC PLAN
STATE CLEARINGHOUSE NO. 2016031080

FINDINGS REGARDING LESS THAN SIGNIFICANT IMPACTS NOT REQUIRING MITIGATION

Consistent with Public Resources Code Section 21002.1 and State CEQA Guidelines Section 15128, the EIR focused its analysis on potentially significant impacts, with limited discussion of other impacts for which it can be seen with certainty there is no potential for significant adverse environmental impacts. State CEQA Guidelines Section 15091 does not require specific findings to address environmental effects that an EIR identifies as having "no impact" or a "less than significant" impact. Nevertheless, the City Council hereby finds that the project would have either no impact or a less than significant impact to the following resource areas:

A. AESTHETICS

1. Scenic Vista

Threshold: Would the project have a substantial adverse effect on a scenic vista?

Finding: Less than significant impact. (EIR, pp. 3.1-4 through 3.1-5)

Explanation: No designated scenic vistas are identified in the City's General Plan or General Plan EIR. Several highways in the City's vicinity are eligible for designation as state scenic highways, thereby indicating that they are of scenic value, and offer the potential for travelers along these routes to experience scenic views. Views are dominated by the San Bernardino Mountains to the north, and the San Bernardino National Forest provides scenic value. However, as indicated in Section 5.1.1, Aesthetics, of the General Plan EIR, future development in the low-lying areas of the valley and foothills adjacent to the mountains would not impact scenic views provided by this backdrop. Additionally, the project as designed (i.e., one- to two-story structures) would result in relatively small-scale structural elements that would not adversely affect or substantially block existing views of these resources as the result of development. The project site is at a distance from the hillsides, is generally flat, and is not subject to the restrictions of the City's Hillside Management Overlay District. Therefore, the project would not adversely affect scenic views of the mountains in this regard and impacts would be less than significant.

2. Scenic Resources

Threshold: Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Finding: Less than significant impact. (EIR, p. 3.1-5)

Explanation: The General Plan identifies that several eligible state scenic highways occur in the vicinity of San Bernardino. However, no such roadways are officially designated; therefore, the project would not adversely affect any existing views from a designated state scenic highway. Route 66 is not designated as a National Scenic Byway in California. Therefore, although the project site may be visible from portions of this roadway, no adverse effects on a designated scenic resource would occur. Although views of the site may occasionally be afforded to travelers along portions of these roadways, such views would be distant from the site and further obscured by existing mature vegetation along the roadways, as well as by intervening topography (i.e., ridgelines). Further, if experienced, views from these roadways would occur across the valley floor. As such, the proposed development would visually blend in with existing development on surrounding lands, thereby minimizing its visibility in the landscape. Therefore, impacts are considered less than significant.

3. Visual Character

Threshold: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Finding: Less than significant impact. (EIR, pp. 3.1-6 through 3.1-8)

Explanation: The project site located in an urbanized setting and is highly disturbed. No rock outcroppings are present on the site, and no historic buildings are located on the property or on adjoining lands. The proposed project is intended to allow the development of a mixed-use neighborhood that includes both housing and commercial services within walking distance to the future residents of Rancho Palma, as well as to the larger Verdemont Heights community. The Rancho Palma Specific Plan provides guidance for future development of the proposed project site, with respect for the City's intended vision for the area and as provided in the City's General Plan.

It is anticipated that most, if not all, of the existing non-native olive trees that are present along the western property boundary would be removed with project implementation. These trees are not considered scenic resources. However, tree removal resulting from implementation of the proposed project would occur consistent with the City's Development Code (Section 19.28.100, Removal or Destruction of Trees).

The project proposes incorporation of landscaping elements to enhance the visual appearance of the Rancho Palma development, as well as to partially screen views into the site from adjacent public roadways. Expansion of Ronald Reagan Park would involve dedication of approximately 0.5 acre of land to the City. Additionally, landscaping enhancements and monument signage are proposed for the entryways into the project site, both for the commercial and residential areas. A variety of wall and fencing designs are proposed for the perimeter and interior of the site.

All future development on the site would be required to demonstrate conformance with the Rancho Palma Specific Plan. With compliance with such design measures and demonstrated consistency with the Specific Plan, Tentative Tract Map, and City General Plan and Municipal Code, project impacts would be less than significant.

4. Light and Glare

Threshold: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Finding: Less than significant impact. (EIR, pp. 3.1-8 through 3.1-9)

Explanation: All construction activities would be conducted in compliance with the City's Noise Control Ordinance (Municipal Code Section 8.54.070), which restricts construction activity to the hours of 7:00 AM to 8:00 PM, thereby limiting the potential need for nighttime lighting in support of construction activities. The proposed development activity would comply with the City ordinance with regard to nighttime lighting restrictions, so no adverse impacts from construction lighting or glare would occur.

Light pollution in San Bernardino is regulated by Development Code Section 19.20.030, which specifies regulations for outdoor lighting with which all new development must comply. Conformance with the City's Development Code is enforced when building permit(s) are applied for. Adherence to the City's regulations would require that all exterior lighting is shielded or recessed so that direct glare and reflections are contained within the boundaries of a parcel and that such lighting is directed downward and away from adjoining properties and public rights-of-way. Conformance with the Development Code would ensure that project impacts relative to light and glare would be minimized and/or avoided.

Additionally, Sections 4.3.3, Lighting Design, and 5.6, Lighting, of the Rancho Palma Specific Plan specify lighting design methods for the proposed residential and commercial uses. Further, the Specific Plan encourages the use of low-contrast lighting and the use of low-voltage fixtures and energy-efficient bulbs to reduce the potential for adverse lighting effects. Proposed light fixtures located along the perimeter of the property would be shielded and directed downward to eliminate light pollution or spillover onto adjacent streets or neighboring properties. The Specific Plan also states that light pollution and lighting fixtures that create direct glare will be minimized through the use of low lighting profiles, recessed luminaires, and minimal luminance levels, where street light is cast downward. Lighting for on-premises advertising displays would also be shielded and focused to minimize light spillover into the night sky or onto adjacent properties. Project conformance with the City's Municipal Code and the Rancho Palma Specific Plan would reduce potential project effects with regard to lighting and glare to less than significant.

B. AGRICULTURAL AND FORESTRY RESOURCES

1. Farmland, Agricultural Zoning, Forestland Zoning, Loss of Forest Land, and Conversion

Threshold: Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California resources Agency, to nonagricultural use?

Threshold: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Threshold: Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

Threshold: Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Threshold: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

Finding: No impact. (EIR, p. 3.14-1)

Explanation: The City of San Bernardino (and therefore, the project site) does not contain any active farmland or forestland, nor does it support trees that could be commercially harvested. These conditions preclude the possibility of the proposed project converting farmland to nonagricultural use or forestland to non-forest use. The project site is zoned CG-1 (Commercial General) and therefore is not zoned for agricultural use, nor is it subject to a Williamson Act contract. The project would have no impact relative to these thresholds.

C. AIR QUALITY

1. Applicable Air Quality Plans

Threshold: Would construction and/or operation of the project conflict with or obstruct implementation of the applicable air quality?

Finding: Less than significant. (EIR, pp. 3.2-11 through 3.2-12)

Explanation: As part of its enforcement responsibilities, the US Environmental Protection Agency (EPA) requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The project site is located in the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the air basin is in nonattainment. In order to reduce such emissions, the SCAQMD drafted the 2012 Air Quality Management Plan. The 2012 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and the Southern California Association of Governments' (SCAG) latest growth forecasts.

The determination of consistency with the AQMP is defined by two criteria. The violations to which Consistency Criterion No. 1 refer are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). The project would not exceed construction or operational standards and therefore, would not violate air quality standards. Therefore, the proposed project would comply with Consistency Criterion No. 1.

Concerning Consistency Criterion No. 2, the Air Quality Management Plan contains air pollutant reduction strategies based on SCAG's latest growth forecasts. The existing General Plan land use designation for the site is Commercial General (CG-1). This land use category is intended for local- and regional-serving retail, personal service, entertainment, office, and other related commercial uses. With approval of the Rancho Palma Specific Plan, the proposed land uses on the project site would be consistent with the City General Plan. Therefore, the development density and vehicle trip generation associated with the proposed project are not anticipated to be greater than the current assumptions contained in the City General Plan. Therefore, the proposed project would comply with Consistency Criterion No. 2.

In summary, because the proposed project satisfies both of the two aforementioned criteria for determining consistency, the project would have less than significant impacts with regard to the applicable air quality plan.

2. Violation of Air Quality Standard

Threshold: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Finding: Less than significant impact. (EIR, pp. 3.2-13 through 3.2-16)

Explanation:

Construction Emissions

Construction activities associated with the project will result in emissions of carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM_{10}, and $PM_{2.5}$). Construction-related emissions are expected from site preparation, grading, building construction, paving, architectural coating, and construction workers commuting. Under the assumed scenarios, reactive organic gases (ROG), NO_x, CO, SO_x, and PM emissions resulting from project construction would not exceed applicable SCAQMD regional thresholds of significance. (See EIR Table 3.2-5 [Emissions Summary of Construction].) Therefore, a less than significant impact would occur during construction activities.

Operational Emissions

Operational activities associated with the proposed project will result in emissions of ROG, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions. As discussed in the EIR, ROG, NO_x, CO, SO_x, and PM emissions resulting from

project operational activities would not exceed applicable SCAQMD regional thresholds of significance for operational air pollutant emissions. (See EIR Table 3.2-6 [Summary of Peak Operational Emissions]). Therefore, operational air quality impacts would be less than significant.

3. Criteria Pollutants

Threshold: Would the project 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)?

Finding: Less than significant. (EIR, pp. 3.2-23 through 3.2-25)

Explanation: The project area is designated as an extreme nonattainment area for ozone and a nonattainment area for PM_{10} and $PM_{2.5}$. The South Coast Air Quality Management District's (SCAQMD) approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California Clean Air Acts. The SCAQMD has published a report on how to address cumulative impacts from air pollution titled White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. In this report, the SCAQMD states:

> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*

The project would not result in exceedances of any applicable thresholds which are designed to assist the region in attaining the applicable state and national ambient air quality standards. In addition, the proposed project would be consistent with the Air Quality Management Plan, which is intended to bring the South Coast Air Basin into attainment for all criteria pollutants, since the project-specific evaluation of emissions demonstrates that projected emissions would not exceed SCAQMD significance thresholds. Furthermore, the project would comply with SCAQMD's Rule 403 pertaining to fugitive dust control during construction, as well as with all other 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 would also be imposed on all projects basin-wide. As such, cumulative impacts would be less than cumulatively considerable. (EIR, pp. 3.2-25 to 3.2-26)

4. Toxic Air Contaminant Concentrations

Threshold: Would the project expose sensitive receptors to substantial toxic air contaminant concentrations?

Finding: Less than significant impact. (EIR, pp. 3.2-17 through 3.2-19)

Explanation: Development projects that involve numerous heavy-duty truck trips on-site create substantial quantities of diesel particulate matter (PM) emissions, and therefore can negatively affect sensitive land uses. In addition, projects that locate sensitive receptors (i.e., residential land uses) in proximity to a major freeway, such as Interstate 215, could result in the substantial exposure of sensitive receptors to diesel PM. The project is a mixed-use development where the proposed commercial land uses could potentially result in numerous heavy-duty delivery truck trips on-site. The proposed residential land uses could be negatively affected by diesel PM emissions from such heavy-duty delivery truck trips as well as traffic on Interstate 215, which is adjacent to the project site.

Currently, emissions factors are generated from a series of computer-based programs to produce a composite emission rate for vehicles traveling at various speeds in a defined geographical area or along a discrete roadway segment. To account for the emissions standards imposed on the California fleet, the California Air Resources Board (CARB) developed the EMFAC2014 emission factor model. To produce a representative vehicle fleet distribution, the health risk assessment utilized CARB's San Bernardino County population estimates for the 2020 calendar year as a conservative measure. This approach provides an estimate of vehicle mix associated with operational profiles at the link or intersection level.

Based on freeway traffic volumes and population profiles, discrete traffic counts were identified for each roadway segment. As discussed in the Mobile Source Air Toxic Health Risk Assessment completed for the proposed project, diesel vehicles account for 5.12 percent of the on-road mobile fleet. For chronic (long-term) and acute (e.g., 1-hour) exposures, annual average daily traffic values were averaged to produce representative hourly traffic volumes. (See Draft EIR Appendix 3.2-2). These values will not exceed the SCAQMD significance thresholds. The project would have a less than significant impact in this regard.

5. Sensitive Receptors

Threshold: Would the project expose sensitive receptors to substantial pollutant concentrations?

Finding: Less than significant impact. (EIR, pp. 3.2-19 through 3.2-21)

Explanation:

Localized Significance – Construction Activity

The analysis made use of methodology included in the SCAQMD Final Localized Significance Threshold Methodology. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or State ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as localized significance thresholds (LSTs). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor.

For this project, the appropriate Source Receptor Area (SRA) for the LST is the Central San Bernardino Valley 2 monitoring station (SRA 34). Since the project's maximum daily

disturbed acreage is less than five acres per day, the SCAQMD's localized significance threshold look-up tables were used in determining localized impacts. Emissions during construction activity would not exceed the SCAQMD's localized significance thresholds, and construction impacts would be less than significant. (See also EIR Table 3.2-9).

Localized Significance – Long-Term Operational Activity

The proposed project involves the construction and operation of 120 single-family detached residential dwelling units and up to 98,000 square feet of commercial retail. According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is required. Impacts on sensitive receptors would be less than significant.

6. Sensitive Receptors – Carbon Monoxide

Threshold: Would the project expose sensitive receptors to substantial pollutant concentrations – carbon monoxide?

Finding: Less than significant impact. (EIR, pp. 3.2-22 through 3.2-23)

Explanation: It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the project vicinity have steadily declined. The proposed project would not produce the volume of traffic required to generate a CO hot spot. CO hot spots are not an environmental impact of concern for the proposed project. The proposed project would not produce the volume of peak-hour traffic required to generate a CO hot spot. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

7. Odors

Threshold: Would the project create objectionable odors affecting a substantial number of people?

Finding: Less than significant. (EIR, pp. 3.2-23 through 3.2-25)

Explanation: The potential for the project to generate objectionable odors has been considered. The project does not contain any land uses identified by the SCAQMD as typically associated with emissions of objectionable odors. Heavy-duty haul trucks used for commercial-related deliveries would emit odors associated with the burning of diesel fuel. However, such exhaust odors would dissipate quickly and are common in a suburban environment. The residential component of the project would also generate odors. Typical odor-producers in a residential environment include lawn mowers, barbecues, trash cans, and dumpsters. However, such odor sources are also common in a suburban environment and are unlikely to cause complaints. The proposed project would also be required to comply with SCAQMD Rule 402 to

prevent occurrences of public nuisances. Rule 402 prohibits the discharge from any source that causes nuisance, annoyance, or discomfort to a considerable number of persons. Odors associated with the proposed project would be less than significant.

D. BIOLOGICAL RESOURCES

1. Riparian and Sensitive Habitat

Threshold: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Finding: Less than significant impact. (EIR, p. 3.3-12)

Explanation: Sensitive habitats include (a) areas of special concern to resource agencies; (b) areas which provide habitat for rare or endangered species which meet the definition of Section 15380 of the CEQA Guidelines; (c) areas designated as sensitive natural communities by the California Department of Fish and Wildlife (CDFW); (d) areas outlined in Fish and Game Code Section 1600; and (e) areas regulated under Clean Water Act Section 404. There are no sensitive habitats within the project area.

Project-related activities would not adversely affect riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFW or the U.S. Fish and Wildlife Service (USFWS). No drainages, stream courses, or other natural water features occur within the boundaries of the project site. The project is anticipated to have a less than significant impact on riparian habitat and sensitive natural communities.

2. Wetlands

Threshold: Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?

Finding: Less than significant impact. (EIR, p. 3.3-13)

Explanation: The proposed project does not result in any substantial adverse effects to jurisdictional features. There are jurisdictional waters within the project site. Much of the northern boundary of the project site abuts the levee of the south side of Cable Creek, and an approximately 475-foot long stretch of Cable Creek is located within the northeastern corner of the project site. Cable Creek is an ephemeral stream tributary to Cajon Wash. The creek stretch is adjacent to and within the project site consists of improved and maintained channel. Cable Creek is a jurisdictional water subject to the Clean Water Act and the Fish and Game Code under the jurisdictions of the US Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB) and the CDFW, respectively. The project proposes to make minor modifications, as necessary, to ensure that the flows remain within the banks of Cable Creek; however, no modifications to Cable Creek are proposed as part of the project. Therefore, the

proposed project would not result in any substantial adverse effects to jurisdictional features, and impacts would be less than significant.

3. Migratory Fish and Wildlife

Threshold: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Finding: Less than significant impact. (EIR, p. 3.3-14)

Explanation: The Biological Resources Report prepared for the project did not identify any wildlife corridors within the boundaries of the project site, largely due to the limited size of the site and its location within a highly-urbanized area. Available data on movement corridors and linkages was accessed via the CDFW BIOS 5 Viewer. Therefore, no native resident, migratory fish, or wildlife species or established native resident or migratory wildlife corridors are present on-site or in the project vicinity, nor would the project impede any use of native wildlife nursery sites. Impacts are considered less than significant.

4. Local Policies or Ordinances

Threshold: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Finding: Less than significant. (EIR, pp. 3.3-14 through 3.3-15)

Explanation: The City of San Bernardino Municipal Code includes a requirement for street trees. However, these provisions are intended for new trees to be planted along roadways and in other public places in the City in conformance with the street tree master plan (Municipal Code Section 12.40.030). Development Code Section 19.28.100 (Removal or Destruction of Trees) includes provisions pertaining to the removal of mature trees that require a City permit when five or more trees need to be cut down, uprooted, destroyed, or removed within a 36-month period. An arborist survey and report may be required at the developer's expense to evaluate existing trees prior to the issuance of a tree removal permit, as determined by the Director of Community Development. The project would remove on-site trees. As such, a tree removal permit is required as part of the development package and prior to any ground-breaking construction. Since a tree removal permit is a requirement, impacts related to tree removal are less than significant.

5. Adopted Habitat Conservation Plans

Threshold: Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Finding: No impact. (EIR, p. 3.3-15)

Explanation: There are no adopted or draft habitat conservation plans or natural community conservations plans for the City of San Bernardino. No other approved local, regional, or state habitat conservation plan applies to the project site or its vicinity. Therefore, the proposed project would result in no conflicts with such plans and would have no impact.

E. GEOLOGY AND SOILS

1. Fault Rupture and Ground Shaking

Threshold: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

Threshold: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking?

Finding: Less than significant impact. (EIR, pp. 3.5-8 through 3.5-9)

Explanation: Although no active faults traverse the project site, the project site is situated in between and within proximity (less than 2 miles) to the San Andreas and San Jacinto fault systems, both of which are delineated as Alquist-Priolo Earthquake Fault Zones. The project site is susceptible to primary and secondary hazards related to seismic activity. All new development and redevelopment is required to comply with the California Building Code (CBC), which includes design criteria for seismic loading and other geologic hazards. Thus, while shaking impacts could be potentially damaging, they would also tend to be reduced in their structural effects due to CBC criteria that recognize this potential.

The CBC includes provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring to the foundation and structural frame design. Additionally, the geotechnical study prepared for the project recommends that building structure and improvements be designed using Site Class D and includes seismic design parameters in accordance with the CBC. Further, the City's General Plan includes policies designed to prevent the loss of life, serious injuries, and major disruption caused by the collapse of or severe damage to vulnerable buildings in an earthquake. Finally, the City codifies the report and application of the Alquist-Priolo Earthquake Fault Zoning Act (Section 15.04.120 of the City of San Bernardino Municipal Code). These requirements, along with adherence to the City's Municipal Code, would reduce impacts to less than significant.

2. Liquefaction

Threshold: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Finding: Less than significant impact. (EIR, p. 3.5-9)

Explanation: According to the geotechnical study prepared for the project, and previous geotechnical investigations on the site, groundwater is estimated to be at approximately 200 feet below ground surface; however some alluvial soil layers below the level of the high historic groundwater could be prone to settlement during a seismic event. (See Draft EIR Appendix 3.5-1 [Geocon West, 2015].) To minimize potential impacts associated with seismically induced liquefaction, future development would be designed in accordance with CBC requirements. The project applicant will have to demonstrate to planning and engineering staff that the recommendations of the geotechnical study prepared for the project site have been incorporated into project design and that the project complies with all applicable CBC requirements. Adherence to CBC requirements and the incorporation of recommendations outlined in the geotechnical study would reduce impacts to less than significant.

3. Loss of Topsoil

Threshold: Would the project result in substantial soil erosion or the loss of topsoil?

Finding: Less than significant impact. (EIR, pp. 3.5-10 through 3.5-11)

Explanation: All construction activities related to the proposed project would be subject to compliance with the California Building Code. Additionally, all allowed development associated with the proposed project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit for construction activities. Compliance with the CBC and the NPDES would minimize effects from erosion and ensure consistency with Santa Ana Regional Water Quality Control Board requirements, which establish water quality standards for the groundwater and surface water of the region.

Additionally, as part of the approval process, prior to grading plan approval, the project applicant will be required to comply with San Bernardino Municipal Code Chapter 8.80, Storm Water Drainage System, which establishes requirements for stormwater and non-stormwater quality discharge and control that requires new development or redevelopment projects to control stormwater runoff by implementing appropriate best management practices (BMPs) to prevent deterioration of water quality. The displacement of soil through cut and fill will be controlled by Chapter 33 of the 2013 California Building Code relating to grading and excavation, other applicable building regulations, and standard construction techniques; therefore, there will be no significant impact.

4. Landslides and Unstable Soils

Threshold: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides?

Threshold: Would the project 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?

Threshold: Would the project 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?

Finding: Less than significant impact. (EIR, p. 3.5-11)

Explanation: The project site is not at risk for landslide, collapse, or rockfall because of the relatively level terrain of the site and surrounding developed properties. Additionally, as part of future development of Rancho Palma, the project site would be graded and the areas underlying the building pads would be soil engineered in accordance with the recommendations of a design-level geotechnical study and the requirements of the CBC. These practices would ensure that proposed structures are located on stable soils and geologic units and would not be susceptible to settlement or ground failure. Therefore, impacts would be less than significant.

5. Expansive Soils

Threshold: Would the project 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?

Finding: Less than significant impact. (EIR, p. 3.5-12)

Explanation: Soils tests on the project site are classified to have very low expansion potential. However, soils used near finish grade may have a different Expansion Index. Therefore, soils with higher expansion potential could be present on the project site. As such, the geotechnical study prepared for the project includes requirements for development consistent with the soil conditions found on the project site and are based on a very low expansion potential for the supporting material as determined by California Building Code (CBC) Chapter 18. The City also requires that site-specific soils reports accompany parcel map and building permit application requirements (Municipal Code § 19.66.120), which ensures that the type of building proposed is consistent with the actual soils present on the proposed building location. Additionally, the City evaluates each foundation plan separately using information from the building permit and the site-specific soils analysis. Based on on-site conditions and development requirements outlined in the CBC and Municipal Code, impacts associated with expansive soils are considered less than significant.

6. Septic Tanks

Threshold: Would the project 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?

Finding: Less than significant impact (EIR, pp. 3.13-18 through 3.13-19)

Explanation: The project will construct an 8-inch sewer line within the local streets that will connect to an existing 15-inch sewer line in Little League Drive. The use of septic tanks or alternative waste water disposal systems is not required. Impacts associated with soils incapable of adequately supporting such alternative systems would be less than significant.

F. GREENHOUSE GAS EMISSIONS

1. Direct and Indirect Emissions

Threshold: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Finding: Less than significant impact. (EIR, pp. 3.6-9 through 3.6-11)

Explanation: The proposed project's greenhouse gas (GHG) emissions were calculated using CalEEMod version 2013.2.2, which was developed in coordination with the South Coast Air Quality Management District and is the most current emissions model approved for use in California by various other air districts. The proposed project would result in direct emissions of GHGs from construction. The project is compared with the efficiency-based threshold of 4.8 metric tons of carbon dioxide equivalents (CO_2e) per service population (residents plus employees) per year by the year 2020. In addition, the SCAQMD-recommended threshold of 3.0 metric tons of CO_2e per service population per year in 2035 was used to assess the project's impacts to the post-2020 GHG reduction goals in California, identified in Governor's Executive Order B-30-15 (2015) and Executive Order 5-03-05 (2005). The SCAQMD's approach is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. For the purposes of this project, the service population for the commercial uses would be the employees, the customers, and the vendors.

The proposed commercial uses would generate approximately 6,702 trips per day. In order to provide a conservative analysis, an internal capture value of 505 and pass-by reduction value of 2,107 are subtracted from the commercial trip generation. As such, the proposed commercial uses would generate 4,090 trips per day. The total number of trips per day is divided by two to derive 2,045 employees, customers, and vendors. According to the California Department of Finance, the average people per household in the City of San Bernardino is 3.49; therefore, the proposed project would contain 419 residents (3.49 people/house x 120 houses). Based on these estimates, the proposed project service population would be 2,464 (419 residents + 2,045 employees). Dividing the GHG emissions for each time period yields a metric ton per service population ratio of 8.3 for year 2020 conditions and 8.0 for year 2035 conditions, thus not surpassing the significance thresholds. The proposed project's contribution to cumulative impacts related to commercial trip generation would be less than cumulatively considerable. (EIR, pp. 3.6-9 through 3.6-11)

2. Conflicts with Applicable Plans, Policies, and Regulations

Threshold: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Finding: Less than significant impact. (EIR, pp. 3.6-12 through 3.6-16)

Explanation: Assembly Bill (AB) 32 requires California to reduce its greenhouse gas (GHG) emissions to 1990 levels by 2020. CARB identified reduction measures to achieve this

goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with the reduction targets required by AB 32. The proposed project will not conflict with or obstruct the implementation of AB 32. Also, the project does not conflict with the stated goals of SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). For these reasons, the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS.

The San Bernardino County Regional Greenhouse Gas Reduction Plan (Partnership's Reduction Plan) was created in accordance with AB 32, which established a GHG limit for California and includes an inventory of GHG emissions and developed reduction measures that are jurisdiction-specific. In the Partnership's Reduction Plan, the City of San Bernardino selected a goal to reduce community GHG emissions 15 percent below the City's 2008 GHG emissions levels by 2020. In order to achieve this goal, the City is in the process of establishing a Sustainability Master Plan (SMP). The draft SMP, prepared in 2012, comprises measures that, when implemented, will enable the City to reduce its GHG emissions from City operations and the community. While the SMP has not yet been finalized or adopted, no aspect of the proposed project would conflict with the draft SMP measures to reduce greenhouse gas emissions. The project represents infill development and consists of a mix of land uses, which reinforces a compact urban form and increases the viability of walking, biking, and transit. For the reasons stated above, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant.

G. HAZARDS AND HAZARDOUS MATERIALS

1. Hazardous Emissions near an Existing or Proposed School

Threshold: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Finding: Less than significant impact. (EIR, pp. 3.7-11 through 3.7-12)

Explanation: The project site is approximately 0.17 mile from Cesar E. Chavez Middle School, which is located at 6650 North Magnolia Avenue. The project proposes residential and commercial uses, neither of which are incompatible land uses near a school. Limited amounts of hazardous materials may be generated by such uses, but would be typical of standard operational characteristics (i.e. use of pesticides, cleaning supplies, oils and/or fuels from maintenance vehicles and equipment, etc.). Additionally, project-related environmental and development documents have been and will continue to be circulated to the San Bernardino City Unified School District (SBCUSD) for review and comment as required by local ordinance and state law. Communication with the school district, and the fact that the residential and commercial development is not anticipated to emit any hazardous substances ensure that this impact is less than significant.

2. Emergency Plans

Threshold: Would the project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?

Finding: Less than significant impact. (EIR, p. 3.7-12)

Explanation: City Development Code Section 19.30.200 requires that a tentative tract or parcel map provide for at least two different standard routes for ingress and egress. The proposed project meets this requirement with access via the proposed driveways on (future) Magnolia Avenue and along West Little League Drive. Per the City's subdivision ordinance, all roadway improvements must be constructed prior to occupancy of the site. Little League Drive will be improved as part of the proposed project, which will help with traffic during an emergency. The improvements will widen the pavement to allow for parking and resurfacing of the roadway. The City requires a traffic control plan as part of development plans for all land division. Any blockage of the roadway for construction purposes, such as road reconstruction and pipeline connection or other utilities, will be noticed and advertised to all emergency responders. Once operational, the roadway will be left unimpaired by the development. Through compliance with City regulations, this impact would be less than significant.

3. Wildland Fires

Threshold: Would the project 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?

Finding: Less than significant impact. (EIR, p. 3.7-13)

Explanation: The proposed project site is located on Urban and Built-Up Land with residential and recreational uses surrounding the project site. However, according to the City of San Bernardino Hazard Mitigation Plan, based on the City's geographical location, topography, terrain, and climate, wildfires are a problem in the City. The proposed project would be subject to compliance with the 2013 California Building Code (or most current version) and 2013 California Fire Code, which would aid in reducing the demand on fire protection service by requiring fire protection detection systems, proper fire flow, and use of appropriate construction materials. In addition, the project design would be required to conform to conditions provided by the local Fire Department to ensure that potential hazards relative to exposure of people or structures to significant risk of loss, injury, or death involving wildland fires would be reduced to less than significant.

4. Known Hazardous Materials Sites

Threshold: Would the project 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, create a significant hazard to the public or the environment?

Finding: No impact. (EIR, pp. 3.7-8 through 3.7-11)

Explanation: As required by Government Code Section 65962.5, CalEPA develops an annual update to the Hazardous Waste and Substances Sites (Cortese) List, which is a planning document providing information about the location of hazardous materials release sites. The DTSC is also responsible for updating information contained in the Cortese List. As search of government hazardous materials databases completed for the project determined that no reported hazardous materials sites are located on the project site. Thus, no impact would occur in this regard.

5. Safety Hazards near Airports

Threshold: Would the project, for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?

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

Finding: No impact. (EIR, p. 3.14-2)

Explanation: San Bernardino International Airport is located at the southeastern edge of the City, approximately 10.6 miles from the project site. No land use compatibility plan currently exists for the airport. Additionally, the proposed project is not located within two miles of a public airport or in the vicinity of a private airport. Therefore, the project would have no impact relative to these thresholds.

H. HYDROLOGY AND WATER QUALITY

1. Water Quality Standards

Threshold: Would the project violate any water quality standards or waste discharge requirements?

Threshold: Would the project 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?

Threshold: Would the project otherwise substantially degrade water quality?

Finding: Less than significant impact. (EIR, pp. 3.8-9 through 3.8-13)
Explanation:

Project Construction

Construction grading, excavation, and other construction activities associated with the proposed project could impact water quality due to sheet erosion resulting from exposed soils

and subsequent deposition of particles and pollutants in drainage areas. The significance of these water quality impacts would vary depending on the level of construction activity, weather conditions, soil conditions, and increased sedimentation of drainage systems in the area.

Construction controls to minimize water quality impacts are not necessarily the same measures used for long-term water quality management, since construction-related water quality control measures are temporary in nature and specific to the type of construction. Development would be subject to compliance with the City's Municipal Code, Chapter 8.80, Storm Water Drainage System, and NPDES requirements. These requirements may include practices to stabilize soil, to protect soil in its existing location, preserving existing vegetation, hydroseeding, collection of soil before it leaves the site, street sweeping, fiber rolls, silt fencing, sand bags, watering exposed soils, etc.

In addition, construction sites with one acre or greater of soil disturbance or less than one acre, but part of a greater common plan of development, would be required to apply for coverage of discharges under the General Construction Permit (Order No. 2009-0009-DWQ). As part of its compliance, a Notice of Intent (NOI) would need to be prepared and submitted to the Santa Ana RWQCB providing notification and intent to comply with the General Permit. The Construction General Permit also requires that construction sites be inspected before and after storm events and every 24 hours during extended storm events. With the incorporation of these Best Management Practices, through the City's regulations, and the NPDES, impacts would be less than significant.

Project Operation

The proposed project would have long-term effects on runoff once development is complete. Runoff from disturbed areas would likely contain silt and debris, resulting in a long-term increase in the sediment load of the storm drain system serving the City. Substances such as oils, fuels, paints, and solvents may be transported to nearby drainages, watersheds, and groundwater in stormwater runoff and wash water. The significance of these water quality impacts would vary depending on weather conditions, soil conditions, and increased sedimentation of drainage systems in the area.

The proposed project will install a water line in Little League Drive, which will connect to an existing 24-inch water line located just south of the Magnolia Avenue/Little League Drive intersection, to an existing 16-inch water line located adjacent to the proposed commercial development, north of Palm Avenue. A looped 8-inch water system in the proposed project streets will provide water to the residential units, while another looped water system will provide water to the commercial development.

The project's on-site drainage system will direct stormwater from both residential and commercial sources to a storm drainage system that consists of five proposed catch basins and then into one of two infiltration basins. The actual capacity of the basins, as designed, exceeds the anticipated requirements (cubic feet) for accommodating stormwater runoff from the site. Both basins are designed to properly manage and retain on-site flows before those flows are transported off-site into Cable Creek. Runoff from the residential area would ultimately be conveyed into a proposed pipe system offsite in Little League Drive that would carry flows into

Cable Creek. The commercial area would direct stormwater runoff through the parking and circulation areas to the southern portion of the project site into a proposed infiltration basin. The collected flows would join the pipe system coming from the residential area and flow into the existing storm drainage line in Little League Drive. The current storm drain line in Little League Drive extends to an outfall at the crossing of Cable Creek by Palm Avenue. Additionally, as part of the proposed project, the existing 36-inch outfall would be increased to accommodate a 48-inch outfall.

Additionally, implementation of best management practices identified in the project's water quality management plan and compliance with existing federal, state, and local regulations as discussed above would protect water quality and ensure compliance with applicable water quality standards. Impacts would be less than significant.

2. Groundwater Supplies

Threshold: Would the project 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?

Finding: Less than significant impact. (EIR, pp. 3.8-13 through 3.8-14)

Explanation: The project will pave over a site that is likely not a significant recharge feature for the local area. Some of the stormwater runoff will percolate into the soil from the basins, while the rest of it will be guided to the Cable Creek Channel. The channel is unlined and along with downstream water channels, helps with area recharge. The zoning of the site was evaluated in the City's Urban Water Management Plan (UWMP) and, as a commercial zone, was anticipated to have more pavement and coverage of impervious surfaces than is proposed with the project. As the project will not result in a groundwater well and will provide greater opportunity for recharge than is projected in the UWMP, this impact would be less than significant.

3. Existing Drainage Patterns and Runoff

Threshold: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Threshold: Would the project 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 that would result in flooding on- or off-site?

Finding: Less than significant impact. (EIR, pp. 3.8-14 through 3.8-15)

Explanation: The site will be graded, and parcel and open space improvements will be designed to drain to the existing and proposed streets, flood control channels, storm drains, and catch basins. The proposed drainage on the site would not channel runoff on exposed soils,

would not direct flows over unvegetated soils, and would not otherwise increase the erosion or siltation potential of the site or any downstream areas. The proposed project is subject to NPDES requirements and compliance with the water quality management plan.

The buildings and parking areas will channel the drainage into underground pipes, leading to retention areas before continuing to the existing drainage course to Little League Drive. The addition of impervious surfaces to the project site would increase flow rates, potentially increasing erosion. However, runoff is proposed to be routed to the infiltration basins and ultimately Cable Creek. This proposed drainage system would slow runoff velocities, allow sediment to settle out of the water, and capture trash and debris collected in the system. Furthermore, the required stormwater pollution prevention plan (SWPPP) for the project would include best management practices designed to prevent erosion both during and after construction. While the proposed project will alter the existing drainage pattern, the alterations are specifically designed to meet state and federal water quality standards and designed to ensure that the stormwater flow does not result in flooding, substantial erosion or siltation. Impacts would be less than significant.

4. Housing and Flows in Flood Zones

Threshold: Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary of Flood Insurance Rate Map or other flood hazard delineation map?

Threshold: Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Finding: Less than significant impact. (EIR, pp. 3.8-15 through 3.8-16)

Explanation: According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06071C7930H, the project site is designated as Zone X, indicating that the site is in an area identified by FEMA as X Other Flood Areas. The designation estimates a 0.2 percent potential for flooding during a 100-year storm event. The project site is west of the Cable Creek Channel that is provisionally accredited by the US Army Corps of Engineers. The provisional accreditation means that the levee could be "decertified" at a later date, resulting in the area being mapped in a different flood zone. Chapter 19.16 of the City of San Bernardino Municipal Code regulates construction in FIRM flood zones. If the levee were to be decertified, the map would be revised to indicate the appropriate flood zone. The proposed project would construct homes and buildings adjacent to the Cable Creek Channel, but would not result in any in-channel construction that could impede or redirect flood flows. The proposed project is outside of the 100-year flood zone and would not impede any future construction that may be required to ensure flood protection for the site.

5. Flooding, Dams, and Levees

Threshold: Would the project 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?

Finding: No impact. (EIR, p. 3.8-8)

Explanation: Dam inundation areas are identified in Draft EIR Figure 3.8-2, which shows the dam inundation areas in the City as a result of failure of the Seven Oaks Dam upstream. The project site is not located within any dam inundation hazard zone. No impact would occur.

6. Seiche, Tsunami, and Mudflow

Threshold: Would the project expose people or structures to inundation by seiche, tsunami, or mudflow?

Finding: No impact. (EIR, p. 3.8-8)

Explanation: The project site is not located near any large inland bodies of water or the Pacific Ocean so as to be inundated by seiches or tsunamis, nor is the project site located on or near steep slopes where rapid erosion could trigger mudflows. As such, the potential for inundation by seiche, tsunami, or mudflow is nonexistent. No impact would occur.

I. LAND USE AND PLANNING

1. Conflict with Plans

Threshold: Would the project 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?

Finding: No impact. (EIR, pp. 3.9-3 through 3.9-5)

Explanation: The proposed project would be consistent with key provisions of the City's General Plan Land Use Element, including Policy 2.1.3 and Policy 2.2.1. The proposed project serves to further each of these key policies by providing a compatible balance of different residential and commercial uses, respecting the existing character of the community, and including new commercial uses specifically designed to serve neighboring residential uses. Therefore, the proposed project would be consistent with the General Plan upon City approval of the Rancho Palma Specific Plan.

Existing zoning for the site is Commercial General (CG-1). Varying commercial land uses are allowed with approval of a Development Permit. Because commercial uses are currently allowed under existing conditions, a zone reclassification to change the underlying land use or zoning from CG-1 is not required or proposed. However, certain commercial uses that are conditionally permitted in the CG-1 zone of the City's Development Code (Chapter 19.06) would require City approval of a conditional use permit (CUP).

There are no adopted habitat conservation plans or natural community conservation plans in San Bernardino. There are also no approved local, regional, or state habitat conservation plans within the City. Future development on the project site would occur consistent with the Rancho

Palma Specific Plan and would therefore not conflict with such a plan adopted for the purpose of avoiding or mitigating an environmental effect.

The project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. No impact would occur.

2. Habitat Conservation Plans

Threshold: Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Finding: No impact. (EIR p. 3.14-2)

Explanation: There is no habitat conservation plan or natural community conservation plan that affects or is adjacent to the project site. Therefore, the project would have no impact.

3. Divide a Community

Threshold: Would the project physically divide an established community?

Finding: No impact. (EIR p. 3.14-2)

Explanation: Because the project site is vacant and is generally surrounded by existing development and will not obstruct traffic or public trails, the proposed project would not physically divide an established community. No impact would occur.

J. MINERAL RESOURCES

1. Known and Locally Important Resources

Threshold: Would the project 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?

Threshold: Would the project 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?

Finding: No impact. (EIR pp. 3.14-2 through 3.14-3)

Explanation: The City's General Plan includes goals and policies aimed at the long-term preservation of mineral resources within the City boundaries and the Sphere of Influence. The General Plan also identifies a range of allowed land use types relative to industrial-related employment uses, such as manufacturing, distribution, research and development, office, and mineral extraction, at a range of intensities. The General Plan land use category of Industrial Extractive (IE) allows mineral, sand, and gravel extraction with an approved Mineral Reclamation Plan, in accordance with the California Surface Mining and Reclamation Act of 1975 (SMARA). This land use does not apply to the subject property or any adjoining lands. The

site has not been historically used for mineral resource extraction, nor is it intended for such purposes. Therefore, the project would have no impact relative to these thresholds.

K. NOISE

1. Groundborne Vibration and Noise

Threshold: Would the project expose people to or generate excessive groundborne vibration or groundborne noise levels?

Finding: Less than significant impact. (EIR, pp. 3.10-26 through 3.10-27)

Explanation:

Construction

A large bulldozer represents the peak source of vibration with a reference level of 87 vibration decibels (VdB) at a distance of 25 feet. At distances ranging from 151 to 878 feet from the project site, construction vibration levels are expected to range from 40.6 to 63.6 VdB. Using the Federal Transit Administration's (FTA) construction vibration assessment methods, the project site would not include or require equipment, facilities, or activities that would result in a perceptible human response (annoyance).

Project construction is therefore not expected to generate vibration levels exceeding the FTA's maximum acceptable vibration standard of 80 VdB. Further, impacts at the site of the closest sensitive receptor are unlikely to be sustained during the entire construction period, but would rather be limited to times that heavy construction equipment is operating adjacent to the project site boundary. Therefore, the potential for the project to result in exposure of persons to, or generation of, excessive groundborne vibration during construction would be less than significant.

Operation

Although the operation of large delivery vehicles and loading docks, or other similar activities that may occur with the commercial uses, may result in limited vibrations, such occurrences would be sporadic and intermittent. Further, such activities would generally be distanced from residential land uses. The nearest sensitive receptor location is the residential community located approximately 151 feet east of the project site. Although such activities may generate noise, they would not be expected to result in the generation of excessive groundborne vibration or groundborne noise levels. Impacts would be less than significant.

2. Ambient Noise Levels – Permanent

Threshold: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Finding: Less than significant impact. (EIR, pp. 3.10-27 through 3.10-30)

Explanation: To quantify the project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 32 roadway segments surrounding the project were calculated based on the changes in the average daily traffic volumes. The noise contours were used to assess the project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying project traffic.

The off-site traffic noise analysis shows that the project's noise level contributions would be less than significant under with-project conditions in each of the six time frames: Existing, Existing plus Ambient (2018), Existing plus Ambient (2019), Opening Year Cumulative (2018), Opening Year Cumulative (2019), and Year 2035 conditions. Further, the project's incremental traffic-related noise level at land uses adjacent to roadways conveying project traffic will diminish over time. This decrease occurs as the background traffic on the study area roadway segments increases and the project represents a smaller percentage of the overall traffic volume. Therefore, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Impacts would be less than significant.

3. Ambient Noise Levels – Temporary or Periodic

Threshold: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Finding: Less than significant impact. (EIR, pp. 3.10-39 through 3.10-40)

Explanation: The unmitigated construction noise levels (peak noise level operating at a single point nearest the sensitive receiver location) would range from 54.7 to 70.0 dBA Leq. In conformance with City Municipal Code Section 8.54.070, noise-generating project construction activities would not occur between the hours of 8:00 p.m. and 7:00 a.m. While the City establishes limits on the hours during which construction activity may take place, it does not identify specific limits for construction noise levels. Section 8.54.060(I), Exemptions, of the Noise Control Ordinance indicates that project construction noise levels are considered exempt from the provisions of the ordinance. Therefore, if project construction only occurs during the hours permitted in the Noise Control Ordinance, project construction noise levels will be exempt from the ordinance. Additionally, construction-related noise would tend to diminish as the use of heavy equipment in the early construction stages concludes and would dissipate entirely at the end of construction activities. Given the sporadic and variable nature of project construction and the implementation of noise limits specified in the Municipal Code, noise impacts would be less than significant.

However, to further reduce the potential for noise impacts and nuisances, Mitigation Measure NOI-1 would be implemented to incorporate best management practices during construction. Implementation of the measure would ensure that the project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels that exist without the project. Impacts would be reduced less than significant.

4. Public Airports

Threshold: Would the project cause 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, exposure of people residing or working in the project area to excessive noise levels?

Finding: No impact. (EIR, pp. 3.10-40 and 3.14-3)

Explanation: The airport nearest to the project site is San Bernardino International Airport, located approximately 10.6 miles from the project site. According to the General Plan EIR, a Comprehensive Land Use Plan (CLUP) and Airport Master Plan have not yet been adopted for the airport. As such, the project site is not currently located within the boundaries of an airport land use plan and is not within any noise contours of San Bernardino International Airport. Therefore, the project would not expose people residing or working in the project area to excessive noise levels.

5. Private Airstrips

Threshold: For a project in the vicinity of a private airstrip, would the project cause exposure of people residing or working in the project area to excessive noise levels?

Finding: No impact. (EIR, pp. 3.10-41 and 3.14-3)

Explanation: The project site is not located in the vicinity of a private airstrip, as no private airports are located in or adjacent to the City's boundaries. According to the General Plan EIR, there are five private helipads located in the City's planning area. However, due to the nature of the project setting (urbanized) and the proposed land uses (residential and commercial), the proposed development is not anticipated to result in substantial new levels of noise in the project area. As such, the project would not result in the exposure of people residing or working in the project area to excessive noise levels.

L. POPULATION AND HOUSING

1. Population Growth

Threshold: Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?

Finding: Less than significant impact. (EIR, pp. 3.11-3 through 3.11-4)

Explanation: The proposed project would include 120 additional single-family dwelling units, which would add approximately 419 people to the City's population (3.49 persons per household x 120 dwelling units). In addition, the proposed project will develop an appropriately sized neighborhood commercial center that provides a mix of retail uses with employment growth and increased sales tax for San Bernardino.

The City of San Bernardino General Plan projected the City's total population to be 319,241 at buildout. The increase in population as a result of the proposed project would account for approximately one percent of the population growth under the General Plan. The anticipated growth has been planned for in the General Plan, and the residential land use proposed with the project would be an allowed use under the existing zoning with City approval of the Rancho Palma Specific Plan. The project would therefore not induce substantial population growth, either directly or indirectly.

2. Displacement of Housing and People

Threshold: Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Threshold: Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Finding: No impact. (EIR, p. 3.14-3)

Explanation: The project site is vacant; therefore, no structures will be removed or any existing residents displaced as a result of project implementation. As such, the project would have no impact related to these thresholds.

M. PUBLIC SERVICES

1. Fire Services and Emergency Medical Services

Threshold: 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 fire protection?

Finding: Less than significant impact. (EIR, pp. 3.13-25 through 3.13-26)

Explanation: The San Bernardino City Fire Department provides fire protection and safety services in the City. The future development within the project area is anticipated to result in increased calls and demands for fire protection services, which may create a need for additional fire protection services, personnel, and/or facilities. However, the required Fire Suppression fees overseen by the City Engineering Department and taxes paid by the project applicant would adequately mitigate the expected increase in fire protection and emergency medical service demand. The proposed project would also be subject to compliance with the 2013 California Building Code (or most current version) and 2013 California Fire Code, which would aid in reducing the demand on fire protection service by requiring fire protection detection systems, proper fire flow, and use of appropriate construction materials. Compliance with measures established by federal, state, and local regulations would maintain acceptable service ratios and response times for fire protection services. Accordingly, implementation of the

proposed project would not result in the need to construct a new fire station or physically alter an existing station. Therefore, impacts to fire protection services would be less than significant.

2. Police Protection

Threshold: 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 police protection?

Finding: Less than significant impact. (EIR, pp. 3.13-26 through 3.13-27)

Explanation: The San Bernardino Police Department currently includes 312 sworn officers and another 150 civilian support staff, approximately 1.5 sworn officers per 1,000 people and 0.7 civilian support staff per 1,000 people. The department operates under a mutual aid agreement with police agencies in the surrounding cities. As such, if and when law enforcement service needs increase as a result of incremental population increases in the City, and additional patrol hours are deemed necessary, they would be met through the department's mutual aid agreement and possibly an increase in the number of officers. The project proposes 120 single-family residential dwelling units and up to 98,000 square feet in commercial space. The average household size in San Bernardino in 2015 was 3.49 persons. The proposed project would include 120 additional single-family dwelling units, which would add approximately 419 people to the City's population.

Considering the Police Department's servicing level, the population increase resulting from the proposed project would require 0.6 additional sworn officers and 0.3 civilian support staff. This increase is not considered sufficient to result in the hiring of additional police department staff and officers or the need for new or physically altered law enforcement facilities. In addition, a standard condition of approval for the proposed project will require the project applicant to pay the standard Law Enforcement development impact fees provided by the Engineering Department. Compliance with these measures would maintain acceptable service ratios and responses times for police protection services. Implementation of the proposed project would not result in the need to construct a new police facilities or physically alter an existing facility. Therefore, impacts to police protection services would be less than significant.

3. Schools

Threshold: 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 schools?

Finding: Less than significant impact. (EIR, pp. 3.13-27 through 3.13-28)

Explanation: School-aged children living in Rancho Palma would attend either North Verdemont Elementary School at 3555 West Myers Road, approximately 0.4 mile north of the project site, or Palm Avenue Elementary School at 6565 Palm Avenue, approximately 0.6 mile northeast of the site. Children in grades 6 through 8 would attend Cesar E. Chavez Middle School at 6650 Magnolia Avenue, approximately 0.2 mile north of the site. Children in grades 9 through 12 would attend Cajon High School at 1200 West Hill Drive, approximately 3.2 miles to the southeast of the site.

Based on the San Bernardino City Unified School District's (SBCUSD) student generation rates, the project will generate 40 elementary school students, 20 middle school students, and 23 high school students, for a total of 83 students. The additional 83 students will not exceed district enrollment/average daily attendance in previous academic years. Furthermore, the proposed project will represent an increase in the current SBCUSD enrollment of less than one percent.

Current state law requires that impacts to current school facilities be mitigated through mandatory development impact fees. The fees enacted in the SBCUSD of $4.25 per square foot of assessable space for new residential development and $0.54 per square foot for new commercial/industrial development will be collected for the proposed project. Accordingly, implementation of the proposed project would not result in the need to construct new school facility or alter an existing school facility. Therefore, impacts to school services would be less than significant.

4. Parks

Threshold: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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 parks?

Finding: Less than significant impact. (EIR, pp. 3.13-29 through 3.13-30)

Explanation: The Rancho Palma development proposes two planned private parks, a paseo, approximately a half-acre of parkland to be dedicated to Ronald Reagan Park, and a private recreational vehicle storage lot. Provision of these facilities would ensure that the project remains in conformance with the City's service ratios for parks. The total amount of planned parkland is 96,000 square feet, which more than satisfies the development's need of five acres of parkland for every 1,000 residents as outlined in the General Plan. Indirect and direct impacts resulting with development of the park facilities were evaluated in the EIR, and mitigation measures identified, as applicable, to reduce any impacts to less than significant (i.e. biological and cultural resources). As such, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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 parks. Impacts would be less than significant.

5. Other Public Facilities

Threshold: 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 other public facilities?

Finding: Less than significant impact.

Explanation: The proposed project would include 120 additional single-family dwelling units, which would add approximately 419 people to the City's population. The population increase from the proposed Project would have the potential to increase the demand for other services or facilities, such as public libraries, hospitals, or civic uses.

The Howard M. Rowe Branch Library is located approximately 4.4 miles southeast of the project site. Based on the limited new population generated, this library would be adequate to serve the proposed project, and no new or physically altered facilities for the provision of library services are required or proposed with the project. As indicated in the City's General Plan EIR, buildout of the General Plan would not result in a significant impact on library facilities, and no mitigation measures are required. Library services within the City are funded through normal revenue sources and the yearly budgetary process. As growth increases so too will revenues to support the library system. Impacts in this regard would be less than significant.

The increase in residents may incrementally increase the number of hospital visitors in the project area. The existing Community Hospital of San Bernardino is located approximately 4.9 miles southeast of the project site. Due to the limited new population generated, the hospital facility is considered adequate to serve the proposed project. Therefore, no new physical facilities associated with hospitals would be required as a result of the project, and no adverse physical impacts associated with the provision of new or altered hospital facilities would occur. Impacts in this regard would be less than significant.

The project has been closely coordinated with area service providers to ensure the availability of services and facilities concurrent with need. Additionally, the Resolution of Approval for the Specific Plan and the implementing permits and maps would be conditioned to ensure the provision of services in a timely, efficient, and economical way to successfully execute the project. As such, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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. Impacts would be less than significant.

N. RECREATION

1. Existing Facilities

Threshold: 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?

Finding: Less than significant impact. (EIR, pp. 3.13-29 through 3.13-30)

Explanation: The Rancho Palma development includes two planned private parks, a paseo, approximately a half-acre of parkland to be dedicated to Ronald Reagan Park, and a private recreational vehicle storage lot. The private neighborhood park would be approximately 1.4 acres and would offer open play turf areas, pathways, picnic nodes, and a playground area. A horseshoe court or other activity may also be provided. The pocket park would be approximately 0.2 acre and would offer opportunities for passive and/or active recreation, which may include bocce ball or similar activities.

The proposed project would generate additional residents, who would increase the demand for parks and park usage. The proposed project would result in the addition of 120 dwelling units and approximately 419 persons. Based on the City's parkland ratio of 5 acres per 1,000 residents, the proposed project would result in the need for approximately 91,000 square feet of parkland. The total amount of planned parkland is 96,000 square feet, which more than satisfies this development's need of five acres of parkland for every 1,000 residents as outlined in the General Plan.

In addition to the City's standard of five acres of parkland for every 1,000 residents, the General Plan includes a policy to require developers of residential subdivisions to pay fees based on the valuation of the units to fund parkland acquisition and improvements. Dedication of parkland would help to reduce potential impacts of future residential development on parks and recreational facilities. Therefore, recreational impacts would be less than significant.

2. New Recreational Facilities

Threshold: 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?

Finding: Less than significant impact. (EIR, p. 3.13-31)

Explanation: Environmental impacts associated with construction of recreation facilities were addressed throughout the EIR under the topics of air quality, biological resources, cultural resources, noise, and paleontological resources. Mitigation was provided in each applicable section of this EIR to reduce potential significant, short-term construction impacts to below a level of significance. Therefore, impacts due to the construction of recreation facilities necessary to serve the project would be less than significant.

O. TRAFFIC AND TRANSPORTATION

1. Design Feature Hazards

Threshold: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Finding: Less than significant impact. (EIR, pp. 3.12-20 through 3.12-22)

Explanation: The City of San Bernardino implements development standards designed to ensure standard engineering practices are used for all improvements. The proposed project would be checked for compliance with these standards as part of the review process conducted by the City. The project includes improvements to the transportation and circulation system surrounding the site, and all such improvements would be designed and constructed to local, regional, and federal standards. As such, they would not introduce any hazardous design features.

Wherever necessary, roadways adjacent to the project, site access points, and site-adjacent intersections will be constructed to be consistent with or within the recommended roadway classifications and respective cross sections in the City's Circulation Element. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project site. As part of the City's review of all development plans, sight distance at each project access point will be reviewed with respect to City of San Bernardino sight distance standards (Chapter 12.30, Sight Distance Requirement) at the time of preparation of final grading, landscape, and street improvement plans. The proposed project does not include any dangerous design features, curves, or intersections; therefore, a less than significant impact would result.

2. Alternative Transportation

Threshold: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Finding: Less than significant impact. (EIR, pp. 3.12-23 through 3.12-24)

Explanation: The addition of population proposed by the project has the potential to increase the demand for public transit. There is an existing sbX transit station/transfer point on Kendall Drive, just east of Palm Avenue. Additionally, Omnitrans Route 2 runs to just east of the project site, while Route 7 and Route 11 run in proximity of the project site near University Parkway. There are existing bus stop locations, crosswalks, bike lanes, trails, and sidewalks in proximity to the project site. Pedestrian facilities are limited in the western portion of the project site. According to the City of San Bernardino Conceptual Trail System, a regional multipurpose trail is proposed west of Palm Avenue and along Pine Avenue, north of Kendall Drive. Additionally, bicycle routes are proposed along Cajon Boulevard, west of Palm Avenue.

The residential component of the proposed project would add approximately 419 people to the City's population, which represents a minimal incremental increase in the City's existing population. Additionally, the commercial component of the proposed project would generate commuters that would have the option to use public transit located in proximity to the project site. However, the performance of these systems is not expected to decrease upon implementation of the proposed project. In fact, the existing and proposed transit options would remain intact and not otherwise be affected by the project. The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation or the expansion of alternative transportation. Therefore, impacts would be less than significant.

3. Air Traffic Patterns

Threshold: Would the project 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?

Finding: No impact. (EIR, p. 3.12-5)

Explanation: The proposed project is outside the San Bernardino International airport influence area as shown in Figure 5.1-2 of the Land Use Element of the City of San Bernardino General Plan. Therefore, the proposed project will not affect air traffic patterns. No impacts will occur.

P. UTILITIES

1. Wastewater

Threshold: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Finding: Less than significant impact. (EIR, pp. 3.13-15 through 3.13-16)

Explanation: Wastewater generated on the project site would be treated at the San Bernardino Water Reclamation Plant. This facility treats residential and industrial wastewater using both primary and secondary treatment processes to meet the discharge standards specified in the National Pollutant Discharge Elimination System permit issued to the plant by the RWQCB. Wastewater would then be processed by the Rapid Infiltration and Extraction facility, where secondary treated water undergoes the final filtering and disinfecting process to produce wastewater that is superior or equivalent to that produced by conventional filtration systems and is suitable for recycling into the Santa Ana River.

The reclamation plant, including both primary and secondary treatment, has the permitted capacity to process 33 million gallons per day (mgd) and currently processes 28 mgd. Development of the proposed project will result in an increase of 35,974 gpd in wastewater generation. This increase will be a minor impact to the plant's daily capacity. Therefore, the project would not exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board, and impacts due to wastewater treatment would be less than significant.

2. New Infrastructure

Threshold: Would the project 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?

Finding: Less than significant impact. (EIR, pp. 3.13-17 through 3.13-19)

Explanation:

Water Infrastructure

The proposed project would extend the existing water lines from Palm Avenue and W. Little League Drive and extend the existing sewer lines from Palm Avenue. This expansion will not cause significant environmental effects. Furthermore, the anticipated growth has been planned for within the General Plan, and the City has anticipated having sufficient water supplies to meet the projected demand for buildout year 2030. As such, water supplies are anticipated to be adequate to serve the proposed project. With adherence to the General Plan goals and policies, the Water Facilities Master Plan, the Urban Water Management Plan (UWMP), Senate Bill (SB) 610 and SB 221 requirements, and the City's Municipal Code, implementation of the proposed project would result in less than significant impacts to water supplies.

The focus of the Water Facilities Master Plan and the UWMP is to give highest priority for further development of local supplies, with imported water being used to meet the remaining needs. Moreover, the City adopted Municipal Code Title 13, Public Utilities, Chapter 13.24, Water Supply System, to ensure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City is at all times pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City. With adherence to the General Plan goals and policies, the Water Facilities Master Plan, the UWMP, and the City's Municipal Code, implementation of the proposed project would result in less than significant impacts to water infrastructure and facilities.

Wastewater Infrastructure

The City's Public Works Department will provide wastewater services to the proposed project. The project proposes the installation of an 8-inch system that will tie into the existing 15-inch sewer line in Little League Drive. The commercial development will also tie into this line. The project would not be permitted to exceed the capacity of wastewater conveyance systems or treatment facilities, since adequate capacity must be demonstrated before additional flows can be contributed to the system.

Environmental impacts associated with construction have been addressed throughout this EIR under the topics of air quality, biological resources, cultural resources, noise, and paleontological resources. Mitigation has been provided in each applicable section of this EIR to

reduce potential significant, short-term construction impacts to below a level of significance. Therefore, impacts due to the construction of wastewater infrastructure would be less than significant.

3. Stormwater Drainage Facilities

Threshold: Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Finding: Less than significant impact. (EIR, p. 3.13-19)

Explanation: The proposed project includes the installation of two infiltration basins within the project footprint to collect stormwater runoff from both the residential and commercial areas. The project applicant proposes to construct an additional stormwater drainage pipe in Little League Drive.

Environmental impacts associated with project construction have been addressed throughout this EIR under the topics of air quality, biological resources, cultural resources, noise, and paleontological resources. Mitigation has been provided in each applicable section of this EIR to reduce potential significant, short-term construction impacts to below a level of significance. Impacts due to the construction of stormwater infrastructure would be less than significant.

4. Water Supply

Threshold: Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Finding: Less than significant. (EIR, pp. 3.13-20 through 3.13-21)

Explanation: Implementation of the proposed project would result in the addition of 120 dwelling units (26.9 acres) and 98,000 square feet (9.3 acres) of commercial development. Future development associated with implementation of the proposed project would result in an increased demand for water supplies and infrastructure within the project area. Implementation of the proposed project would result in a demand for water supplies of 111,707 gallons per day (gpd). The proposed project would implement water conservation measures through the use of native, drought-tolerant landscaping and "smart" irrigation systems and would promote "green" projects with water-saving measures as defined in Chapter 5 of the Rancho Palma Specific Plan.

The San Bernardino Municipal Water Department (SBMWD) website states that the district produces and delivers 47,676 acre-feet of water per year. With estimated water consumption of 133 acre-feet annually, the proposed project will represent an increase in water consumption of approximately 0.26 percent. Considering the current estimations that were determined by utilizing the SBMWD water consumption assumptions, sufficient water supplies are available to serve the project from existing entitlements and resources, and no new or

expanded entitlements are needed. Therefore, impacts to water supply would be less than significant.

5. Adequate Wastewater Capacity

Threshold: Would the project result in a determination by the wastewater treatment provider that 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?

Finding: Less than significant impact. (EIR, p. 3.13-21)

Explanation: The proposed project will include connection to the SBMWD wastewater system via an 8-inch sewer pipe in Little League Drive. The Water Reclamation Plant treats water from a population of approximately 185,000, meaning that the current baseline wastewater flow rate is approximately 151 gallons per capita per day. Development of the proposed project will result in an increase of 35,974 gpd in wastewater generation. This increase will be a minor impact to the plant's daily capacity. Because adequate wastewater treatment capacity is available, impacts to wastewater capacity would be less than significant.

6. Landfill Capacity

Threshold: Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Finding: Less than significant impact. (EIR, p. 3.13-22)

Explanation: The proposed project is estimated to result in 419 residents who will generate solid waste that will require disposal and recycling. The California Department of Resources Recycling and Recovery (CalRecycle) provides unofficial estimates of solid waste generation and disposal rates for five land use or business types: commercial, industrial, institutional, residential, and service.

The solid waste generated as a result of the proposed project is expected to be sent to the Mid-Valley Landfill or the San Timoteo Landfill. Assuming that each person generates 4.7 pounds of residential waste per day, the residential development will produce 1,969 pounds of waste per day, and the commercial development on the site will produce 2,058 pounds of waste per day, for a total of 4,027 pounds of waste per day for the proposed project, or 734 tons per year. The estimated amount of generated solid waste would not exceed the landfills' permitted disposal. Adequate landfill capacity is available to meet the needs of the proposed project. Therefore, impacts to solid waste facilities would be less than significant.

7. Regulations for Solid Waste

Threshold: Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Finding: Less than significant impact. (EIR, p. 3.13-23)

Explanation: The State of California established 50 percent as the minimum waste reduction rate for all cities. Since 1995, the City has received either a Board Approved or Good Faith Effort in reaching waste diversion goals required by the law. Continuation of the recycling program and education on composting efforts would result in achieving the desired goal of 50 percent waste diversion in compliance with AB 939. The proposed project would not hinder efforts to achieve this requirement, as the City would distribute educational material on reducing waste, recycling, and composting to commercial and residential users.

The General Plan Utilities Element includes goals and policies related to an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing development in the City. The proposed project is required to provide adequate storage areas for the storage and collection of trash, recyclables, and green waste materials.

Because it is required to comply with City and state regulations which require a minimum of 50 percent waste reduction and General Plan elements, the proposed project will be consistent with federal, state, and local regulations regarding solid waste. Therefore, impacts to solid waste facilities would be less than significant.

FINDINGS REGARDING ENVIRONMENTAL IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

The City Council hereby finds that feasible mitigation measures have been identified in the EIR and this Resolution that will avoid or substantially lessen the following potentially significant environmental impacts to a less than significant level. The potentially significant impacts, and the mitigation measures that will reduce them to a less than significant level, are as follows:

A. BIOLOGICAL RESOURCES

1. Sensitive Species

Threshold: Would the project 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 Wildlife or US Fish and Wildlife Service?

Finding: Less than significant with mitigation incorporated. (EIR, pp. 3.3-10 through 3.3-12)

Explanation: Construction of the project would regrade the site, remove the existing vegetation, and result in urban improvements for the property west of the Cable Creek Channel. The channel, as well as the 0.50-acre portion of the site east of the channel, would remain largely undisturbed during project construction. The 0.50-acre portion would become part of the existing Ronald Regan Park and would be developed with park features such as grass, trails, trees, etc. While the resulting development would include landscaping, the project site would not have any natural habitat value once fully developed.

No special-status plants were observed during a biological field survey of the project site. Further, the project site is characterized as disturbed, and regular disking appears to have occurred on the site. As such, the potential for any sensitive plant species is low, and impacts to special status plants are not anticipated.

However, suitable habitat for two sensitive wildlife species were found on site: the burrowing owl, which is a species of special concern, and the California horned lark, which is on the CDFW Watch List, and therefore, significant impacts may occur with project implementation. Focused breeding season protocol-level surveys were conducted for burrowing owl, and no individuals or signs were observed on the project site during the survey. However, because suitable habitat is found onsite, impacts to burrowing owl are potentially significant. California horned lark was observed within the boundaries of the project site during the field survey, therefore impacts are considered potentially significant.

To address these potential significant impacts, the following mitigation measures were identified:

Mitigation Measures

BIO-1 All construction and clearing activities shall be conducted outside of the avian nesting season (January 15 to August 31), when feasible. A migratory nesting bird survey of the project's impact footprint for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist within seventeen (17) days prior to initiating vegetation clearing or ground disturbance. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be determined by the biologist in consultation with the CDFW and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined that the young birds have successfully fledged and a monitoring report has been submitted to the CDFW for review and approval.

Timing/Implementation: *Requirements shall be incorporated into all rough and/or precise grading plan documents. The project applicant's construction inspector shall monitor to ensure that measures are implemented during construction.*

Enforcement/Monitoring: City of San Bernardino Planning Department

BIO-2 A preconstruction burrowing owl survey shall be conducted by a qualified biologist at least 30 days prior to construction activities to determine whether there are any active burrowing owl burrows within or adjacent to the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to the CDFW for approval, outlining standard burrowing owl burrow closing procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow/territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow depending on the time of year and the level of disturbance near the site in accordance with guidelines specified by the CDFW.

Timing/Implementation: *Prior to any vegetation removal or ground-disturbing activities*

Enforcement/Monitoring: *City of San Bernardino Planning and Public Works Departments*

As indicated above, the project site would not have any natural habitat value once fully developed. The mitigation measures identified would ensure that any direct or indirect effects on sensitive avian species or burrowing owls are avoided during project construction. As such, impacts to any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS, would be reduced to less than significant with mitigation incorporated.

B. CULTURAL RESOURCES

1. Historical Resources

Threshold: Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Finding: Less than significant with mitigation measures incorporated. (EIR, pp. 3.4-7 through 3.4-8)

Explanation: According to the cultural resources assessment prepared for the project site (see Draft EIR, Appendix 3.4-1), no historical resources were identified within the project's boundaries. Record search results, combined with surface conditions, failed to indicate sensitivity for buried historic or cultural resources. It was therefore recommended that no additional cultural resource work or monitoring is necessary for any earth-moving activities required on the project site. However, it is possible that project-related ground-disturbing activities could uncover previously unknown historical resources within the project's boundaries. Therefore, unanticipated and accidental historical discoveries made during project construction would have the potential to impact historical resources.

To address these potential significant impacts the following mitigation measure was identified:

Mitigation Measures

CUL-1 If previously undocumented resources are identified on the project site during earth-moving activities, a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall be contacted to assess the nature and significance of the find and to divert construction activities, if necessary. If evidence of archaeological resources (e.g., chipped or ground stone, historical debris, building foundations, or human bone) is identified during excavation, all work within 50 feet of the discovery site shall cease until the project archaeologist can evaluate the significance of the resource. In the event of a new find, salvage excavation and reporting shall be required, in conformance with established regulatory protocols.

Timing/Implementation: Prior to ground-disturbing construction activities

Enforcement/Monitoring: City of San Bernardino Engineering and Planning Departments

Therefore, although no known historical resources were identified within the project boundaries and sensitivity for such resources to occur onsite is low, the proposed mitigation would ensure that any previously unknown historical resources potentially discovered during project-related ground disturbance activities would be properly evaluated and protected, consistent with local and state requirements. Implementation of the proposed mitigation would reduce potential impacts to less than significant.

2. Archaeological Resources

Threshold: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Finding: Less than significant impact with mitigation measures incorporated. (EIR, pp. 3.4-8 through 3.4-9)

Explanation: An archaeological field survey of the subject property was conducted on September 29, 2015. No cultural resources were found during the survey within the project's boundaries. Surface visibility was approximately 60 percent on the property, and ground disturbances were severe, including grading for weed abatement and levee construction. However, it is possible that project-related ground-disturbing activities could uncover previously unknown archaeological resources within the project's boundaries. Unanticipated and accidental archaeological discoveries during project implementation would have the potential to impact archaeological resources. To address this potential significant impact the following mitigation measure was identified:

Mitigation Measures

CUL-2 If during grading or construction activities, cultural resources are discovered on the project site, work shall be halted immediately within 50 feet of the discovery, and the resources shall be evaluated by a qualified archaeologist (retained by the applicant) and the relevant Native American tribes or bands notified (i.e., Ramona, San Manuel, Soboba, San Fernando, Agua Caliente, Morongo, and Pechanga Bands, and the Serrano Nation), as appropriate. Any unanticipated cultural resources that are discovered shall be evaluated and a final report prepared by the qualified archaeologist. The report shall include a list of the resources discovered, documentation of each site/locality, and interpretation of the resources identified, and the method of preservation and/or recovery for identified resources. In the event the significant resources are recovered and if the qualified archaeologist, the tribe, and/or the band determines the resources to be historic or unique, avoidance and/or mitigation would be required pursuant to and consistent with CEQA Guidelines Sections 15064.5 and 15126.4, Public Resources Code Section 21083.2.

Timing/Implementation: Prior to ground-disturbing construction activities

Enforcement/Monitoring: City of San Bernardino Building and Planning Departments

Therefore, although no known cultural resources were identified within the project boundaries, and sensitivity for such resources to occur onsite is low, the proposed mitigation would ensure that any previously unknown cultural resources potentially discovered during project-related ground disturbance activities would be properly evaluated and protected, consistent with local and state requirements. Implementation of the proposed mitigation would reduce potential impacts to less than significant.

3. Human Remains

Threshold: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Finding: Less than significant impact with mitigation measures incorporated. (EIR, pp. 3.4-9 through 3.4-10)

Explanation: No human remains have been identified on the project site. However, the proposed project could result in the inadvertent disturbance of currently undiscovered human remains. Any discovery of human remains would trigger state law governing the treatment of human remains. Procedures of conduct following the discovery of human remains on non-federal lands are mandated by Health and Safety Code Section 7050.5, by Public Resources Code Section 5097.98, and by CEQA in California Code of Regulations Section 15064.5(e). According to these provisions, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. Because the project would have the potential to result in the discovery of human remains on the project site, such impacts would be considered potentially significant.

To address this potential impact, the following mitigation measure was identified:

Mitigation Measures

CUL-3a If human remains are encountered, California Health and Safety Code Section 7050.5 requires that no further disturbance occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the NAHC shall identify the most likely descendant within 24 hours of receiving notification from the coroner. The most likely descendant shall then have 48 hours to make recommendation and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

Timing/Implementation: During ground-disturbing construction activities

Enforcement/Monitoring: City of San Bernardino Engineering and Planning Departments

CUL-3b All cultural materials, with the exception of sacred items, burial goods, and human remains, collected during the grading monitoring program and from any previous archaeological studies and excavations on the project site shall be curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to the appropriate tribe's curation facility, which meets the standards set forth in 36 Code of Federal Regulations (CFR) Part 79 regulating federal repositories.

Timing/Implementation: During ground-disturbing construction activities

Enforcement/Monitoring: City of San Bernardino Engineering and Planning Departments

CUL-3c All sacred sites, should they be encountered on the project site, shall be avoided and preserved as the preferred mitigation, if feasible, as determined by a qualified professional in consultation with the tribe(s). To the extent that a sacred site cannot be feasibly preserved in place or left in an undisturbed state, mitigation shall be required pursuant to and consistent with Public Resources Code Section 21083.2 and CEQA Guidelines Sections 15064.5 and 15126.4.

Timing/Implementation: During ground-disturbing construction activities

Enforcement/Monitoring: City of San Bernardino Engineering and Planning Departments

Therefore, although no known human remains or sacred sites were identified within the project boundaries, and sensitivity for such resources to occur onsite is low, the proposed mitigation would ensure that any previously unknown resources potentially discovered during project-related ground disturbance activities would be properly evaluated and protected, consistent with local and state requirements. Implementation of the proposed mitigation would reduce project impacts to less than significant.

4. Tribal Cultural Resources

Threshold: Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?

Finding: Less than significant impact with mitigation measures incorporated. (EIR, p. 3.4-11)

Explanation: No tribal cultural resources have been identified on the project site. The City has conducted consultation activities as required by Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18). The results of the consultation are included as Appendix A of Appendix 3.4-1 of the Draft EIR. A Sacred Lands File Search was requested form the Native American Heritage Commission (NAHC) and a Tribal Consultation List was subsequently provided by the NAHC. The tribes identified were contacted for purposes of consultation. Of the eight tribes contacted, two responses were received from: 1) the Morongo Band of Mission Indians; and, 2) the Sobaba Band of Luseno Indians. The Morongo Band of Mission Indians indicated that the project site is not located within the Tribe's reservation boundaries, but within an area considered to be a traditional use area or one in which the Tribe has cultural ties (i.e. Cahuilla or Serrano Territory). requested that a records search and comprehensive archaeological survey of the site and area of potential effect (APE) be conducted; that a tribal monitor be present during the survey; that the results of the survey be provided to the Tribe; and, that project-related ground disturbance activities be conducted consistent with State requirements for the discovery of unknown cultural resources and human remains (State and Health and Safety Code 7050.5). The Soboba Band of Indians indicated that the project lies outside of the Tribe's existing reservation boundaries, but within the bounds of the Tribe's Tribal Traditional Use Areas. However, the Tribe indicated that it did not have any specific concerns regarding known cultural resources. The Tribe also requested that an approved Native American Monitor(s) be present during any future ground disturbance activities.

Although no known tribal resources have been identified by either the records search, site survey, or through required consultation activities, project construction could potentially result in the inadvertent disturbance of undiscovered tribal cultural resources. Any discovery of these resources would trigger state law governing their treatment. Further, any discovery of human remains on the project site would be subject to these procedural requirements.

If the resource is a tribal cultural resource of non-human remains, a qualified archaeologist shall be contacted to assess the nature and significance of the find in consultation with relevant Native American tribes or bands (i.e., Ramona, San Manuel, Soboba, San

Fernando, Agua Caliente, Morongo, and Pechanga Bands, and the Serrano Nation), as determined appropriate.

To address these potential impacts, the following mitigation measures were identified:

Mitigation Measures

Compliance with Mitigation Measures CUL-1, CUL-3a, CUL-3b, and CUL-3c (text of which is included above).

Implementation of the mitigation measures would ensure that, if unknown resources are discovered during project-related ground disturbing activities, standard protocols are undertaken to evaluate the potential resource and, if determined to be of significance, that such resources are protected and/or preserved in perpetuity. Mitigation proposed would also allow evaluation of such resources to ensure that they are properly identified and protected to the satisfaction of the relevant Tribe(s). As a result, project impacts on unknown tribal resources would be reduced to less than significant.

C. GEOLOGY AND SOILS

1. Paleontological Resources

Threshold: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Finding: Less than significant impact with mitigation measures incorporated. (EIR, pp. 3.5-12 through 3.5-13)

Explanation: A search was performed by the National History Museum of Los Angeles County of the paleontology collection records for locality and specimen data for the proposed project. The records search did not identify any vertebrate fossil localities within the proposed project boundaries. However, localities were found nearby from the same deposits that occur in the proposed project area. The entire project area has exposures of younger Quaternary Alluvium. As impacts to unknown paleontological resources may occur, impacts would be considered potentially significant.

To address these potentially significant impacts, the following mitigating measure was identified:

Mitigation Measures

GEO-1 Prior to ground-disturbing activities, the project applicant shall retain a qualified paleontologist to monitor all initial ground-disturbing activities in native soils or sediments. If the paleontologist, upon observing initial earthwork, determines there is low potential for discovery, no further action shall be required and the paleontologist shall submit a memo to the City confirming a finding of low potential.

Should any paleontological resources (i.e., fossils) be uncovered during project construction activities, all work within a 100-foot radius of the discovery site shall be halted or diverted to other areas on the site and the City shall be immediately notified. The qualified paleontologist shall evaluate the finds and recommend appropriate next steps to ensure the resource is not substantially adversely impacted, including but not limited to avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Further ground disturbance shall not resume within a 100-foot radius of the discovery site until an agreement has been reached between the project applicant, the qualified paleontologist, and the City of San Bernardino as to the appropriate preservation or mitigation measures to ensure that the resource is not substantially adversely impacted.

Timing/Implementation: Prior to ground-disturbing activities

Enforcement/Monitoring: City of San Bernardino Planning Department

Therefore, although no known paleontological resources were identified within the project boundaries, the proposed mitigation would ensure that any previously unknown resources potentially discovered during project-related ground disturbance activities would be properly evaluated and protected, as appropriate, consistent with standard local and state requirements. Implementation of the proposed mitigation would reduce project impacts to less than significant.

D. HAZARDS AND HAZARDOUS MATERIALS

1. Hazardous Materials

Threshold: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Threshold: Would the project 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?

Finding: Less than significant with mitigation measures incorporated. (EIR, pp. 3.7-8 through 3.7-11)

Explanation:

Short-Term Impacts

Project construction activity could result in the transport, use, and disposal of hazardous materials such as gasoline fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides. Although care is used to transport, use, and dispose of these materials, there is a possibility that upset or accidental conditions may arise which could release hazardous materials (i.e. petroleum-based fuels or hydraulic fluid used for construction equipment) into the environment. Accidental releases of hazardous materials are those releases that are unforeseen or that result from

unforeseen circumstances, while reasonably foreseeable upset conditions are those release or exposure events that can be anticipated and planned for.

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 to contaminated soil or water can have potential health effects from a variety of factors, including the nature of the contaminant and the degree of exposure.

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 used during construction for the project type proposed. Additionally, the construction contractor 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. However, a significant impact may occur if unknown wastes or suspect materials are discovered during construction by the contractor which he/she believes may involve hazardous waste/materials, thereby creating a potential hazard to the public or the environment through reasonably foreseeable upset and accident conditions. Therefore, mitigation is required to reduce such impacts to less than significant.

Long-Term Impacts

The project proposes a mix of residential and commercial development. Commercial or residential development is not generally expected to involve the routine transport, use, or disposal of hazardous materials in significant quantities. Due to the nature of such uses, daily operation of such uses is not anticipated to 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.

Generally, the exposure of persons to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments, particularly by untrained personnel, an accident during transport, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The City's street setback requirements minimize the direct damage that may occur from transportation-related hazardous waste spills. Also, Hazardous Material Release Response Plans and Inventories would be required. The Hazardous Materials Division of the San Bernardino County Fire Department oversees the submittal of Business Emergency Plans, which are intended to mitigate potential release of hazardous substances and minimize potential harm or damage. The proposed project would result in additional residents, and thus, could increase exposure of the public to accidental or reasonably foreseeable releases of hazardous materials off-site. However, there are no hazardous material sites within one mile of the project site.

The project site is in proximity to Interstate 215, along which hazardous materials may be transported. Adherence to existing regulations would ensure compliance with safety standards

related to the transport, use, and storage of hazardous materials and with the safety procedures mandated by applicable federal, state, and local laws and regulations designed to avoid hazardous waste releases. Compliance with these regulations includes filing of storage location, inspection of storage methods, regular updates to handling plans, and providing emergency contact information. Compliance would ensure that risks resulting from the routine transport, use, storage, or disposal of hazardous materials or hazardous wastes are minimized and/or handled appropriately if there is an accidental release during transport, use, storage, or disposal of hazardous materials. Thus, impacts resulting from project operation would be less than significant.

To address any potentially significant impacts that may arise as a result of project construction, the following mitigation measures has been identified:

Mitigation Measures

HAZ-1 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 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.

Timing/Implementation: During construction

Enforcement/Monitoring: City of San Bernardino Public Works and Planning Departments

Implementation of the proposed mitigation would ensure that, in the event that project construction activities result in discovery of unknown wastes or materials that may be potentially hazardous, thereby creating a potential hazard to the public or the environment, such materials would be properly evaluated and disposed of, consistent with applicable requirements. Through such mitigation, impacts resulting from the discovery of potentially hazardous materials, released through reasonably foreseeable upset and accident conditions, would be reduced to less than significant.

E. NOISE

1. Noise Level Standards

Threshold: Would the project expose people to or generate noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?

Finding: Less than significant with mitigation measures incorporated. (EIR, pp. 3.10-16 through 3.10-26)

Explanation:

Construction

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, power tools, concrete mixers, and portable generators, can reach high levels. Project construction is expected to occur in the following five stages: site preparation, grading, building construction, architectural coating, and paving.

While the City establishes limits on the hours during which construction activity may take place, it does not identify specific limits for construction noise levels. Section 8.54.060(I), Exemptions, of the Noise Control Ordinance indicates that project construction noise levels are considered exempt from the provisions of the ordinance. Therefore, if project construction only occurs during the hours permitted in the Noise Control Ordinance, project construction noise levels would be exempt from the ordinance. Additionally, construction-related noise would tend to diminish as the use of heavy equipment in the early construction stages concludes and would dissipate entirely at the end of construction activities. Impacts would be less than significant in this regard.

Given the sporadic and variable nature of project construction and the implementation of noise limits specified in the Municipal Code, noise impacts would be reduced to a less than significant level without the incorporation of mitigation measures. Although impacts are already less than significant, in an abundance of caution and to even further reduce the potential for noise impacts and/or nuisances, mitigation would be implemented to incorporate best management practices during construction. Implementation of Mitigation Measure NOI-1 would further minimize impacts from construction noise as it requires construction equipment to be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. As a result, noise impacts resulting from project construction activities would be less than significant.

Operation

It is expected that the primary source of noise impacts to the project site will be traffic noise from Interstate 215, West Little League Drive, and Magnolia Avenue. The project would also experience some background traffic noise impacts from the project's internal streets. However, due to distance, topography, and low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment. The on-site traffic noise level impacts indicate that the lots facing I-215, West Little League Drive, and Magnolia Avenue will experience unmitigated exterior noise levels ranging from 54.6 to 74.6 dBA CNEL, thereby exceeding the City's 65 dBA CNEL threshold for exterior noise levels Therefore, impacts would be considered significant.

To satisfy the City's 65 dBA CNEL exterior noise level standards for residential land use, Mitigation Measures NOI-1a and NOI-1b require the construction of a minimum effective 9-

foot-high noise barrier for the outdoor living areas (backyards) of lots 47 to 55 and lots 75 to 81 facing I-215 and West Little League Drive. The planned noise barrier is expected to consist of a combination 1-foot-high berm with an 8-foot-high block wall. In addition, the construction of a minimum effective 7-foot-high noise barrier is required for lot 82 facing West Little League Drive. Further, 6-foot-high noise barriers are recommended for all other lots adjacent to Magnolia Avenue and the commercial retail land use on the project site. With the recommended noise barriers, the mitigated future exterior noise levels will range from 48.8 to 65.0 dBA CNEL, which is below the City's 65 dBA CNEL exterior noise level standards, and this impact would be reduced to less than significant.

To ensure that the interior noise levels comply with the City's 45 dBA CNEL interior noise standards, future noise levels were calculated at the first- and second-floor building facades. Because noise levels would exceed the City's interior noise threshold of 45 dBA, impacts would be considered potentially significant. To satisfy the City's 45 dBA CNEL interior noise level criteria, lots facing I-215, West Little League Drive, and Magnolia Avenue will require a noise reduction of up to 29.3 dBA and a windows closed condition requiring a means of mechanical ventilation (e.g., air conditioning). Implementation of Mitigation Measure NOI-2 would satisfy the City's 45 dBA CNEL interior noise standards for residential development and would reduce potential impacts to less than significant.

Based on the reference noise levels, project-generated operational stationary source noise levels at each of the sensitive receiver locations were estimated. Hourly noise levels associated with the rooftop air conditioning units, shopping cart corrals, parking lot vehicle movements, and loading dock activities at the commercial retail uses on the project site are expected to range from 18.6 to 50.8 dBA Leq at the sensitive receiver locations.

To demonstrate compliance with local noise standards, the project-only operational noise levels were evaluated against the City's 65 dBA Leq exterior noise level standard. As the project would satisfy the City's noise level standards at the nearby sensitive receiver locations, project-related operational noise levels would be less than significant.

To describe the project operational noise level contributions, the project's operational noise levels were combined with the existing ambient noise levels measurements for the eight receiver locations potentially impacted by project operational noise sources. Project-related operational noise level contributions would not exceed the significance criteria. As such, project-related operational stationary-source noise levels would not result in a substantial temporary/periodic or permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, impacts would be less than significant.

Thus, as described above, the following mitigation measures were identified to reduce impacts to a level of less than significant:

Mitigation Measures

Construction Noise

NOI-1 Prior to commencement of and/or during construction, as appropriate, the project applicant shall demonstrate, to the satisfaction of the City of San Bernardino Planning Department that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property owners and occupants located within 200 feet of the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of approximately 50 feet shall be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of San Bernardino Planning Department, prior to mailing or posting, and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- The contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present on-site during all construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the contractor shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Planning Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, schools, churches, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.

Timing/Implementation: Prior to commencement of and during construction

Enforcement/Monitoring: City of San Bernardino Planning Department

Operational Noise

NOI-2A Prior to issuance of a building permit, and prior to final occupancy, the project applicant shall demonstrate that proper sound wall design has been incorporated into the proposed residential and commercial development areas, consistent with Exhibit ES-A of the final approved traffic impact analysis, to reduce potential sound levels to below the City's established noise thresholds. The project design shall include construction of a minimum effective 9-foot-high noise barrier for the outdoor living areas (backyards) of lots 47 to 55 and lots 75 to 81 facing Interstate 215 and West Little League Drive. The planned noise barrier shall consist of a combination 1-foot-high berm with an 8-foot-high block wall. In addition, the construction of a minimum effective 7-foot-high noise barrier shall be constructed for lot 82 facing West Little League Drive. Additionally, 6-foot-high noise barriers shall be constructed for all other lots adjacent to Magnolia Avenue and the commercial retail land use on the project site. All walls shall be constructed on-site consistent with the final improvement plans as approved by the City of San Bernardino.

Timing/Implementation: Prior to issuance of building permit and prior to final occupancy

Enforcement/Monitoring: City of San Bernardino Planning Department

NOI-2B During construction, and prior to final occupancy, the recommended noise control barriers shall be constructed consistent with that shown on the approved Tentative Tract Map so that the top of each wall and/or berm combination extends to the recommended height (as indicated in NOI-2A) above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height (as indicated in NOI-2A) above the highest point between the residence and the road. The barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways. The noise barrier shall be constructed using the following materials:

- Masonry block
- Stucco veneer over wood framing (or foam core), or 1-inch-thick tongue and groove wood of sufficient weight per square foot
- Glass (0.25 inch thick) or other transparent material with sufficient weight per square foot
- Earthen berm
- Any combination of these construction materials

The barrier shall consist of a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking.

Timing/Implementation: During construction and prior to final occupancy

Enforcement/Monitoring: City of San Bernardino Planning Department

NOI-3 During construction, and prior to final occupancy, to satisfy the City of San Bernardino's 45 dBA CNEL interior noise level criteria, lots facing Interstate 215, West Little League Drive, and Magnolia Avenue shall require a noise reduction of up to 29.3 dBA and a windows closed condition requiring a means of mechanical ventilation (e.g., air conditioning). To ensure that the City's 45 dBA CNEL interior noise level is met, the following measures shall be implemented:

- Exterior walls: If wood construction is used, exterior walls shall be furnished on the outside with siding-on-sheathing, stucco, or brick veneer. The interior surface shall be at least 0.5-inch gypsum board. Insulation having a minimum of R-11 shall be placed between the studs. Masonry walls, if used, shall have at least one surface of the wall plastered, painted, or covered with gypsum wallboard or approved materials. At least R-11 insulation shall be placed between the studs. There shall be no direct openings such as mail slots or ventilation units.
- Windows:
    - Lots 47 to 55 and lots 75 to 82 facing I-215 require upgraded second-floor windows with a minimum sound transmission class (STC) rating of 34.
    - All other windows and sliding glass doors shall be well-fitted, well-weather-stripped assemblies and shall have a minimum STC rating of 27.
- Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27.
- Roof: Roof sheathing of wood construction shall be well-fitted or caulked plywood of at least 0.5 inch thick. Ceilings shall be well-fitted, well-sealed gypsum board of at least 0.5 inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. Skylights shall have a minimum STC of 34.
- Attic: Attic ventilation shall be oriented away from Interstate 215. If such an orientation cannot be avoided, an acoustical baffle shall be placed in the attic space behind the vents.
- Ventilation: A ventilation system shall be provided that will provide at least the minimum air circulation and fresh air supply requirements of the Building Code in each habitable room without opening any window, door, or other opening to the exterior. All concealed ductwork shall be insulated flexible glass fiber ducting that is at least 10 feet long between any two points of

connection. Kitchen cooktop vent hoods shall be the non-ducted recirculating type with no ducted connection to the exterior.

- Wall and ceiling openings: Openings in the shell of the residence that degrade its ability to achieve an interior CNEL rating of 45 dBA or less when all doors and windows are closed are prohibited unless access panels, pet doors, mail delivery drops, air conditioning, or other openings are designed to maintain the 45 dBA CNEL (or less) standard in the room to which they provide access.

Timing/Implementation: During construction and prior to final occupancy

Enforcement/Monitoring: City of San Bernardino Planning Department

F. TRAFFIC AND TRANSPORTATION

1. Consistency with Plans and Congestion Management Programs

Threshold: Would the project 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?

Threshold: Would the project 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?

Finding: Less than significant with mitigation measures incorporated. (EIR, pp. 3.12-9 through 3.12-19)

Explanation:

Existing Plus Project

The Existing Plus project scenario includes Existing (2015) traffic volumes plus project traffic. All study area intersections are anticipated to continue to operate at acceptable levels of service with the implementation of the proposed project.

A queuing analysis was performed for the off-ramps at the I-215 and Palm Avenue interchange to assess vehicle queues for the off-ramps that may potentially result in deficient peak-hour operations at the ramp-to-arterial intersections and may potentially spill back onto the I-215 mainline. No movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing Plus Project (Phase 1) or Existing Plus Project (Project Buildout) traffic conditions.

For the basic freeway segments analyzed in the study, for Existing Plus Project (Phase 1) and Existing Plus Project (Project Buildout), mainline directional volumes for the weekday AM and PM peak hours are anticipated to operate at an acceptable level of service (i.e., level of service [LOS] C or better) during the peak hours, with the addition of Phase 1 project and project buildout traffic.

Opening Year Cumulative (2019) With and Without Project

The study area intersections will continue to operate at acceptable levels with construction of the proposed project under all project scenarios. The one exception is the intersection 19, University Parkway/Kendall Drive intersection (#19) where the proposed project will worsen the level of service that is projected to be LOS D without the project under the Existing Plus Ambient Growth 2019 scenario.

The calculated volume-to-capacity ratio (V/C) for the proposed project at the University Parkway/Kendall Drive intersection is 0.013, which is greater than the threshold of 0.01. Therefore, the impact is considered significant.

A queuing analysis was performed for the off-ramps at the I-215 and Palm Avenue interchange to assess vehicle queues for the off-ramps to determine if peak-hour operations at the ramp-to-arterial intersection would remain acceptable. No movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for the 2019 with Project scenario.

Ramp merge and diverge operations were evaluated for 2019 with Project Scenario. The freeway ramp merge and diverge areas are anticipated to operate at an acceptable level of service (i.e., LOS D or better).

The basic freeway segments analyzed in the study, for Existing Plus Ambient Growth 2019 Scenario Impact Summary, remain at acceptable levels of service.

The project would provide on-street parking along the proposed interior roadways, as well as at each residential unit (i.e., private driveways and garages). Additionally, it should be noted that attendees of events held at the Platinum Soccer Complex adjacent to the east of the site frequently park along West Little League Drive. Consistent with the project objective to "facilitate additional public parking with the improvement of West Little League Drive and Magnolia Avenue," construction of off-site project roadway improvements would not restrict or prohibit the continuation of public parking along West Little League Drive. On-street parking would be provided along both sides of West Little League Drive and (future) Magnolia Avenue with project implementation. Additionally, parking for the proposed commercial uses would be provided on-site consistent with parking ratios established by the City and as addressed in the Rancho Palma Specific Plan. Therefore, the project would not conflict with City Municipal Code requirements for the provision of adequate surface parking within the project area or adversely affect the performance of the circulation system with regard to parking.

The study area intersections would continue to operate at acceptable levels with construction of the proposed project. The one exception is intersection #19, University

Parkway/Kendall Drive intersection, where the proposed project will worsen the level of service that is projected to be LOS D without the project under the 2019 with Project scenario and also result in an increase in the V/C by 0.013 (exceeding the threshold of 0.01). The impact affects left turn movements from southbound Kendall Drive onto eastbound University Parkway during the PM peak hour. The left turn lane is not long enough to accommodate the proposed project traffic, which could block the through lanes. The installation of a second left turn lane will increase the area where cars can queue to turn left without blocking the through lanes. (See also Draft EIR Table 3.12-16).

Project mitigation may include a combination of fee payments to established programs (e.g., Development Impact Fees), construction of specific improvements, payment of a fair share contribution toward future improvements, or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City of San Bernardino's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. The calculated proportionate share of impact at this intersection from the proposed project is 4.4 percent. Mitigation Measure TRA-1 requires that the proposed project either construct the additional left turn lane at this intersection or pay proportionate fees toward its construction. Impacts would be reduced to less than significant.

The San Bernardino Associated Governments (SANBAG) implements the 2011 Congestion Management Plan (CMP) for the County of San Bernardino. The CMP is intended 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. Ten 10 study area intersections identified as CMP facilities (shown in EIR Table 3.12-1) were evaluated in the EIR.

Consistent with the City of San Bernardino level of service threshold of LOS D, and in excess of the CMP stated level of service threshold of LOS E, LOS D was used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions. As indicated above, the project would impact the intersection of University Parkway/Kendall Drive, which is a CMP facility. Therefore, the project would conflict with an applicable congestion management program, including, but not limited to, level of service standards. As indicated above, Mitigation Measure TRA-1 would be implemented to reduce project impacts at the University Parkway/Kendall Drive intersection to less than significant, thereby avoiding project conflict with the applicable CMP.

Thus, as described above, the following mitigation measures were identified to reduce impacts to a level of less than significant:

Mitigation Measures

TRA-1 Prior to the issuance of building permits, the project applicant shall be required to construct or pay its fair share to create a second southbound turn lane at the intersection of University Parkway/Kendall Drive (#19).

Timing/Implementation: Prior to issuance of a building permit

Enforcement/Monitoring: City of San Bernardino Planning and Public Works Departments

2. Emergency Access

Threshold: Would the project result in inadequate emergency access?

Finding: Less than significant with mitigation measures incorporated (EIR, pp. 3.12-22 through 3.12-23)

Explanation: All of the project roadways proposed meet the City's design standards for access. During construction of improvements associated with the project, roadways may be temporarily blocked or subject to detours and delays, which could temporarily affect emergency access. Project construction will require the export of materials from the site and the import of construction materials to the site. The exported materials will be transported via dump trucks. Each truck will generate one inbound and one outbound trip.

In order to minimize the impact of construction truck traffic to the surrounding roadway network, a construction traffic management plan (TMP) will be implemented for the duration of the construction phase. Coordination of the TMP with local and regional emergency personnel is required to ensure consistency. Mitigation Measure TRA-2 establishes the requirement for a traffic management plan and minimizes the effect of construction activity on emergency access.

After construction, emergency access throughout the project site will be developed in accordance with applicable ordinances, standard conditions of approval, and permits related to emergency access and reduce this impact to a less than significant level.

To address this potentially significant impact, the following mitigation measure was identified:

Mitigation Measures

TRA-2 The project applicant shall prepare and implement a traffic management plan (TMP) to minimize inconveniences during construction. Included among the provisions, the contractor shall coordinate with the City of San Bernardino, the County of San Bernardino, and local police, fire, and emergency medical service providers regarding construction scheduling and any other practical measures to maintain adequate access to properties and response times. The TMP shall also limit construction activity to the extent feasible and limit all soil export activities to occur outside of the typical weekday morning (7:00 AM to 9:00 AM) and weekday evening (4:00 PM to 6:00 PM) peak commute hours. The TMP shall include contact information for members of the general public who may have questions concerning the project and access to their property. Two-way traffic through the construction zone shall be maintained throughout the construction period.

Timing/Implementation: Prior to and during construction

Enforcement/Monitoring: City of San Bernardino

Implementation of the TMP would ensure that project construction activities do not interfere with emergency access to the site or surrounding uses. As temporary lane closures and/or the movement of vehicles and construction workers and materials to and from the site would occur, implementation of Mitigation Measure TRA-2 would ensure that the potential effects of such activities on emergency access are minimized and/or avoided.

FINDINGS REGARDING ENVIRONMENTAL IMPACTS NOT FULLY MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

No impacts were found to be significant and unavoidable through the technical analysis provided in the EIR. A Statement of Overriding Considerations is therefore not required. All significant impacts identified as potentially resulting with project implementation can be reduced to a level of less than significant level with implementation of the mitigation measures proposed.

FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL IMPACTS

Consistent with the requirements of CEQA, the EIR for the project includes an analysis of cumulative impacts, which include the impacts of the project plus all other pending or approved projects within the affected area for each resource. Fifty-seven pending and approved projects were identified as cumulative projects for consideration [see EIR, pp. 2-13 to 2-16 (Table 2-3, Cumulative Projects)].

The City Council hereby finds as follows:

A. AESTHETICS

The cumulative impact analysis focuses on whether the proposed project's contribution to regional visual resource impacts would result in a cumulatively considerable environmental impact. The project's impact would be cumulatively considerable if, when considered with other existing, approved, proposed, and reasonably foreseeable development in the region, it would result in substantial alteration of the visual character of the region, significant impacts to scenic vistas, or substantial increases in daytime glare and nighttime lighting.

As determined in the discussion of direct project impacts, potential aesthetic impacts would be less than significant. The project site is not located in proximity to a city-, county-, or state-designated scenic highway or designated scenic vista. With conformance to lighting requirements, including the City of San Bernardino Development Code, the project would not adversely affect nighttime views in the area. Other future projects would be required to comply with applicable lighting regulations and to implement mitigation for aesthetic and lighting/glare impacts, as appropriate. Impacts would be less than cumulatively considerable. (EIR, pp. 3.1-9 through 3.1-10)

B. AGRICULTURE AND FORESTRY

Given that the project has no impact on agricultural and forestry resources, and because there are no agricultural or forestry resources at the project site or in the vicinity, there would be no cumulatively considerable impact on these resources. (EIR, p. 3.14-1)

C. AIR QUALITY

The project area is designated as an extreme nonattainment area for ozone and a nonattainment area for PM_{10} and $PM_{2.5}$.

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California Clean Air Acts. The SCAQMD has published a report on how to address cumulative impacts from air pollution titled White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. In this report, the SCAQMD states:

> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*

The project would not result in exceedances of any applicable thresholds which are designed to assist the region in attaining the applicable state and national ambient air quality standards. In addition, the proposed project would be consistent with the Air Quality Management Plan, which is intended to bring the South Coast Air Basin into attainment for all criteria pollutants, since the project-specific evaluation of emissions demonstrates that projected emissions would not exceed SCAQMD significance thresholds. Furthermore, the project would comply with SCAQMD's Rule 403 pertaining to fugitive dust control during construction, as well as with all other 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 would also be imposed on all projects basin-wide. As such, cumulative impacts would be less than cumulatively considerable. (EIR, pp. 3.2-25 to 3.2-26)

D. BIOLOGICAL RESOURCES

Future development in San Bernardino and surrounding cities could result in the loss of biological resources. San Bernardino is an urbanized city surrounded by other urban cities. Similar to other areas of San Bernardino, neighboring properties are developed with homes, Interstate 215, soccer fields, and commercial development. No special-status wildlife species were observed on the project site during a reconnaissance-level survey, and none are likely to be present due to the disturbed nature of the project site and the developed characteristics surrounding lands. Although some special-status species could potentially occur on the project site as transients, direct and indirect project impacts would be precluded by implementing standard avoidance and minimization measures. Given the low quality habitat that exists on the project site, the project will not result in a significant loss of habitat. Therefore, cumulative

impacts related to biological resources would be reduced to less than cumulatively considerable. (EIR, pp. 3.3-15 through 3.3-16)

E. CULTURAL RESOURCES

The proposed project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features). As mitigated, the direct impacts associated with the proposed project will be reduced to a less than significant level. The proposed project is adjacent to existing development that has disturbed the soil and likely already affected any cultural resources. As a result of surrounding development, mitigation proposed to reduce direct project impacts, and existing federal and state laws that would require project conformance, this impact is considered less than cumulatively considerable. (EIR, pp. 3.4-11 through 3.4-12)

F. GEOLOGY AND SOILS

Geotechnical impacts are site-specific rather than cumulative in nature. For example, seismic events may damage or destroy a building on the project site, but the construction of a development project on one site would not cause any adjacent parcels to become more susceptible to seismic events, nor can a project affect local geology in such a manner as to increase risks regionally. Soils associated with the project site are similar to other soils in the area. The proposed project will grade parts of the property. However, the resulting project site would not be visually and topographically different from existing development surrounding the proposed project site. The proposed project will be graded to be similar to existing adjacent natural topography to avoid erosion. With compliance with existing codes and standards, including the California Building Code and implementation of the Mitigation Measures GEO-1 through GEO-4, the proposed project's contribution to cumulative impacts related to area geological conditions would be less than cumulatively considerable. (EIR, p. 3.5-14)

G. GREENHOUSE GAS EMISSIONS

The proposed project's GHG emissions were calculated using CalEEMod version 2013.2.2, which was developed in coordination with the South Coast Air Quality Management District and is the most current emissions model approved for use in California by various other air districts. The proposed project would result in direct emissions of GHGs from construction. The project is compared with the efficiency-based threshold of 4.8 metric tons of carbon dioxide equivalents (CO_2e) per service population (residents plus employees) per year by the year 2020. In addition, the SCAQMD-recommended threshold of 3.0 metric tons of CO_2e per service population per year in 2035 was used to assess the project's impacts to the post-2020 GHG reduction goals in California, identified in Governor's Executive Order B-30-15 (2015) and Executive Order 5-03-05 (2005). The SCAQMD's approach is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. For the purposes of this project, the service population for the commercial uses would be the employees, the customers, and the vendors.

The proposed commercial uses would generate approximately 6,702 trips per day. In order to provide a conservative analysis, an internal capture value of 505 and pass-by reduction value of 2,107 are subtracted from the commercial trip generation. As such, the proposed commercial uses would generate 4,090 trips per day. The total number of trips per day is divided by two to derive 2,045 employees, customers, and vendors. According to the California Department of Finance, the average people per household in the City of San Bernardino is 3.49; therefore, the proposed project would contain 419 residents (3.49 people/house x 120 houses). Based on these estimates, the proposed project service population would be 2,464 (419 residents + 2,045 employees). Dividing the GHG emissions for each time period yields a metric ton per service population ratio of 8.3 for year 2020 conditions and 8.0 for year 2035 conditions, thus not surpassing the significance thresholds. The proposed project's contribution to cumulative impacts related to commercial trip generation would be less than cumulatively considerable. (EIR, pp. 3.6-9 through 3.6-11)

H. HAZARDS AND HAZARDOUS MATERIALS

Implementation of the proposed project would result in potential short-term impacts during construction activities associated with exposure to hazards such as potentially contaminated soils. However, hazards and hazardous materials impacts associated with the project would be site-specific and would not contribute to cumulative hazardous impacts. Cumulative development in the region is not anticipated to result in significant hazards or hazardous materials impacts to the project site. In addition, any new development in areas at risk for wildland fire hazards would be required to comply with minimum standards for building materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface areas as required by the 2013 California Fire Code. The City's standard for streets includes regularly spaced fire hydrants and ensures access for emergency vehicles. These standards would reduce any associated wildfire risks. As such, the proposed project would not combine with any planned growth in the area to form a hazard impact or wildland fire risk greater or more significant than the project impact alone. Therefore, cumulative impacts relative to hazards and hazardous materials and wildland fires are considered less than cumulatively considerable. (EIR, pp. 3.7-13 through 3.7-14)

I. HYDROLOGY AND WATER QUALITY

The proposed project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the Santa Ana River watershed, would alter cumulative drainage conditions, rates, volumes, and water quality, which could result in potential flooding and stormwater quality impacts in the overall watershed. However, the proposed project's storm drain system and implementation of a water quality management plan would reduce the project's contributions to cumulative runoff, water quality, and flooding impacts. As demonstrated by the hydrology and hydraulics report completed for the project, the proposed project is designed to convey stormwater runoff in a safe manner for the post-project condition. As such, the project would not contribute to cumulative hydrology impacts. The proposed project includes drainage basins that both reduce the velocity of runoff and serve to remove debris and contaminants from stormwater runoff. Stormwater can only enter the storm drainage system after passing through these basins. The proposed project's contribution to

cumulative water quality, runoff, and flooding impacts is considered to be less than cumulatively considerable. (EIR, pp. 3.8-16 through 3.8-17)

J. LAND USE AND PLANNING

The proposed project would result in development on land that is currently vacant. The subject land has been designated for development since adoption of the City's General Plan. The proposed project consists of residential land uses and commercial uses; thus, the proposed land use mix is compatible with the existing and anticipated development in the project vicinity, which generally consists of residential and commercial uses. Because development of the site is consistent with the City's expectations for future development of the area, impacts are considered less than cumulatively considerable. (EIR, p. 3.9-5)

K. MINERAL RESOURCES

Given that there are no mineral resources at the project site, and no impacts would occur, the project would not have a cumulatively considerable impact. (EIR, pp. 3.14-2 through 3.14-3)

L. NOISE

The cumulative setting associated with the proposed project with regard to noise impacts includes approved, proposed, planned, and other reasonably foreseeable projects and development in the City of San Bernardino. Developments and planned land uses, including the proposed project, would cumulatively contribute to increased noise levels along roadways in the City.

Primarily, the project would have the potential to contribute to cumulative noise impacts as a result of increased traffic on local roadways, in combination with other projects in the vicinity. The project is expected to generate an exterior noise level increase of up to 1.8 dBA CNEL, which would exceed the significance thresholds identified when the existing ambient conditions range from 60 to 65 dBA CNEL on the roadway segment of West Little League Drive west of Palm Avenue. However, existing land use adjacent to this roadway segment is commercial, and not noise-sensitive (i.e., versus residential use types). Therefore, any noise level increase resulting with project buildout is considered to be less than significant for Year 2035 conditions. The proposed project's cumulative contribution to ambient noise levels would be less than cumulatively considerable.

Additionally, operational noise from the project would have the potential to contribute to an increase in cumulative noise levels in the area. Operational stationary source noise from the project would be limited to an exterior noise level of 65 dBA for the residential land uses.

The project would have the potential to contribute to area noise levels on a cumulative basis. However, operational noise levels for the project would not exceed the City's noise thresholds under a worst-case scenario (with all rooftop air conditioning units, shopping cart corrals, parking lot vehicle movements, and loading dock activities all operating simultaneously), although this condition would typically not occur. Mitigation required to reduce direct noise impacts relative to project-generated traffic (see NOI-1A) would also help to reduce the project's

contribution to cumulative operational noise levels experienced by off-site sensitive receptors (i.e., residential uses to the northeast). Further, all future development projects in the project area would require evaluation to determine their potential to contribute to an increase in area noise levels on a cumulative basis. Operation of all such future development would be required to demonstrate conformance with the City's noise level thresholds and to provide mitigation to reduce noise levels to the extent feasible, should such thresholds be exceeded.

Due to the minor increase in operational noise levels generated by the proposed project, combined with implementation of mitigation required for direct noise impacts, it is not anticipated that the project's cumulative contribution to ambient noise levels would be cumulatively considerable. (EIR, pp. 3.10-41 through 3.10-46)

M. POPULATION AND HOUSING

Cumulative development in San Bernardino would result in substantial, direct population growth through the construction of new housing units and the creation of new employment opportunities. San Bernardino is anticipated to increase in population, though at a smaller percentage than experienced between 1990 and 2015. Population growth has been planned for in the General Plan, and the proposed project would be consistent with these projected uses. In addition, the proposed project would not alter subregional or regional growth rates projected in the General Plan or by SCAG. As such, the proposed project would not induce growth not already considered in the General Plan and the population forecasts for the City and surrounding area. As such, impacts would be less than cumulatively considerable. (EIR, pp. 3.11-4 through 3.11-5)

N. PUBLIC SERVICES

Fire: Implementation of the proposed project has the potential to create a significant impact on fire protection services. The project applicant will pay fees and taxes that are expected to adequately mitigate the expected increase in fire protection and emergency medical service demand. Compliance with measures established by federal, state, and local regulations would reduce fire protection impacts to less than significant. In addition, adherence to the General Plan goals and policies would further reduce impacts resulting from the proposed project to a less than significant level. As such, implementation of the proposed project would not result in cumulatively considerable fire protection impacts.

Police: Implementation of the proposed project has the potential to create a significant impact on police protection services. The proposed project is projected to generate an additional servicing need of 0.6 additional sworn officers and 0.3 civilian support staff. This increase is not considered substantial. As such, implementation of the proposed project would not result in cumulatively considerable police protection impacts.

Schools: The proposed project would have the potential to generate an additional 83 school-aged children. An additional 83 students would represent a less than one percent increase in the number of students attending SBCUSD schools. This increase is not considered substantial. Pursuant to SB 50, payment of fees to the appropriate school district is considered full mitigation for project impacts. Therefore, the project applicant would be required to pay the

statutory fees, so that space can be constructed, if necessary, at the nearest sites to accommodate the impact of project-generated students.

Due to the minor increase in students, implementation of the proposed project would not result in cumulatively considerable school services and facilities impacts. (EIR, pp. 3.13-28 through 3.13-29)

O. RECREATION

The proposed project would provide the parkland necessary for the additional residents and will not require the construction of any recreational facilities off-site. As a result of parkland included in the development plan, mitigation proposed, and conformance with existing federal and state laws, impacts are considered less than cumulatively considerable. (EIR, p. 3.13-31)

P. TRAFFIC AND TRANSPORTATION

Explanation: Long-term impacts would typically be considered less than significant because the City reasonably assumes that the improvements would eventually be constructed. However, since the City does not have the authority to implement regional funded roadway improvements (Measure "I") and cannot be certain that the projects listed on page 14 of the TIA will be built and would pay to address the impacts at the intersections in TRA-3. Without certain funding, the City cannot guarantee that the proposed improvements would be constructed as proposed by mitigation measure TRA-3.

The intersection analysis for Year 2035 With Project scenario would result in significant impacts at Palm Avenue/Belmont Avenue (Intersection #10); Palm Avenue/Irvington Avenue (Intersection #11); Palm Avenue/I-215 Southbound Ramps (Intersection #14); Palm Avenue/Hallmark Parkway (Intersection #15), and; University Parkway/Kendall Drive (Intersection #19). The City would collect fees representing the proportionate share of the proposed project's impact at the intersections identified in mitigation measure TRA-3. Therefore, the project's potential contribution to traffic-related impacts at the affected intersections would be reduced, and project-related impacts would be less than cumulatively considerable. (EIR, pp. 3.12-24 through 3.12-35)

Q. UTILITIES AND SERVICE SYSTEMS

Water: The proposed project will create an increase in water consumption of approximately 0.26 percent. Considering the current estimations that were determined by utilizing the SBMWD water consumption assumptions, sufficient water supplies are available to serve the project from existing entitlements and resources, and no new or expanded entitlements are needed. It is also not foreseen that the proposed project will necessitate the construction of additional water facilities other than those included as part of the project. As such, the project would not contribute to cumulative water impacts. (EIR, p. 3.13-24)

Wastewater: Development associated with implementation of the proposed project would result in an increased demand on the existing sewer system from increased sewage flows in the project area. The proposed project will represent an increase in wastewater production of

approximately 35,974 gallons per day. This increase will be a minor impact to the Water Reclamation Plant's daily capacity. The wastewater generated by the proposed project will be treated using primary and secondary treatment processes to meet the discharge standards specified in the NPDES permit issued by the Santa Ana Regional Water Quality Control Board, as well as a final filtering and disinfecting process. Because the project would not exceed wastewater treatment requirements, cumulative impacts due to wastewater treatment would be less than cumulatively considerable. (EIR, p. 3.13-24)

Stormwater: The proposed project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the Santa Ana River watershed, would alter cumulative drainage conditions, rates, volumes, and water quality, which could result in potential flooding and stormwater quality impacts in the overall watershed.

The proposed project's storm drain system and implementation of a water quality management plan would reduce the project's contributions to cumulative runoff, water quality, and flooding impacts. As demonstrated by the hydrology and hydraulics report completed for the project, the proposed project is designed to convey stormwater runoff in a safe manner for the post-project condition. As such, the project would not contribute to cumulative hydrology impacts. The proposed project includes drainage basins that both reduce the velocity of runoff and serve to remove debris and contaminants from stormwater runoff. Stormwater can only enter the storm drainage system after passing through these basins. The proposed project's contribution to cumulative water quality, runoff, and flooding impacts is considered to be less than cumulatively considerable. (EIR, p. 3.13-24)

Solid Waste: The proposed project will represent an increase in solid waste production of 734 tons per year. The project and cumulative projects will be required to comply with City and state regulations and General Plan goals and policies related to solid waste. The contribution of the proposed project to cumulative impacts associated with increased solid waste would be less than significant. Therefore, the proposed project would not result in cumulatively considerable solid waste impacts. (EIR, p. 3.13-25)

FINDINGS REGARDING SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

According to Sections 15126(c) and 15126.2(c) of the State CEQA Guidelines, an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. Generally, a project would result in significant irreversible environmental changes if any of the following would occur:

- The project would involve a large commitment of non-renewable resources;
- The primary and secondary impacts of the project would generally commit future generations to similar uses
- The project involves uses in which irreversible damage could result from any potential environmental accidents; or
- The proposed consumption of resources are not justified.

Long-term irreversible environmental changes would include a change in the land use and visual character of the site (undeveloped to developed), an increase in local and regional traffic and associated air pollutant and greenhouse gas emissions and noise level increases, an increase in the volumes of solid waste and wastewater generated in the area, and an increase in water consumption.

Additionally, development of the project site would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure proposed. Nonrenewable and limited resources that would likely be consumed as part of project site development would include but are not limited to oil, natural gas, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. In addition, the project site would result in an increased demand on public services and utilities (e.g., water supplies).

The use of natural resources in the form of construction materials and energy resources would not have a substantial, measureable effect on the availability of such resources, including nonrenewable resources such as fossil fuels. Project construction and operation would not involve the use of substantial amounts of nonrenewable energy. Further, the Rancho Palma Specific Plan requires that the project comply with California's Green Building Standards Code (CALGreen), which would reduce the amount of energy the proposed commercial and residential land uses would require for building operation, thereby reducing demands on nonrenewable fossil fuels.

The project would also be subject to compliance with applicable regulatory requirements implemented by the State of California and the South Coast Air Quality Management District (SCAQMD) to reduce the project's demand for energy resources. The Rancho Palma Specific Plan also includes measures to reduce long-term water and energy demands generated by the proposed development. Therefore, it is not anticipated that the proposed project would result in the wasteful consumption of substantial amounts of energy or nonrenewable resources. (EIR, pp. 5-3 through 5-4)

Therefore, no significant impacts relating to irreversible changes are anticipated.

FINDINGS REGARDING GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires an EIR to discuss the ways the proposed project could foster economic or population growth or the construction of additional housing, directly or indirectly, in the surrounding environment. Growth-inducing impacts include the removal of obstacles to population growth (e.g., the expansion of a wastewater treatment plant allowing more development in a service area) and the development and construction of new service facilities that could significantly affect the environment individually or cumulatively. In addition, growth must not be assumed as beneficial, detrimental, or of little significance to the environment.

Per the Department of Finance, the average household size in San Bernardino in 2015 was 3.49 persons. The proposed project would include 120 additional single-family dwelling units, which would add 419 people to the City's population (3.39 persons per household x 120 dwelling units). In addition, the project would deliver an appropriately 98,000 square-foot

neighborhood commercial center that provides a mix of retail uses with employment growth and increased sales tax for San Bernardino.

Project construction and operation would generate new employees and residents that would purchase goods and services within the region. However, any indirect increase in employment associated with meeting such needs for goods and services would be marginal, and accommodated by existing goods and service providers, as well as by the proposed development. Such demands are not likely to result in any new physical impacts to the environment.

The City of San Bernardino General Plan (2005a) projects the total population of the City to be 319,241 at buildout. The increase in population as a result of the proposed project would account for approximately one percent of the population growth under the General Plan. The anticipated growth has been planned for in the General Plan, and the residential land use proposed with the project would be an allowed use under the current zoning (Commercial General) with City approval of the Rancho Palma Specific Plan. Furthermore, the General Plan includes goals and policies to reduce potential population growth-related impacts.

It is not anticipated that the proposed project would directly or indirectly induce growth by causing intensification of land uses in the immediate vicinity, and none of the improvements proposed by the project would enable such intensification that could not already occur under present conditions, due to the location of the project in an urbanized area of the City and similar to development on adjacent lands.

Development of the project site would result in the improvement and extension of infrastructure facilities located in and/or adjoining the project site. The surrounding area is already developed with similar residential and commercial uses that are currently served by existing infrastructure and adequate public services (e.g., required fire service response times can be met without new or expanded facilities or personnel). As such, the project would not be expected to indirectly induce growth as a result of new infrastructure or services in the area.

The project would therefore not substantially induce substantial population growth, either directly or indirectly. (EIR, pp. 5-1 through 5-3.)

FINDINGS REGARDING ALTERNATIVES

A. PROJECT OBJECTIVES

The objective of the proposed project is to redevelop an underutilized property in San Bernardino in conformance with the land use and zoning designations applied to the property by the City of San Bernardino General Plan and the Rancho Palma Specific Plan. The following is a list of basic objectives sought by the proposed project:

A. Establish a mixed-use community for the Verdemont Heights community with a balance of land uses including commercial, single-family housing, and recreation.

B. Deliver an appropriately sized neighborhood commercial center that provides a mix of retail uses with employment growth and increased sales tax for San Bernardino.

C. Provide new single-family housing in the Verdemont Heights community with two lot size categories and corresponding home sizes to serve a variety of future residents.

D. Increase the Verdemont Heights community's recreation opportunities by expanding the size and/or amenities of Ronald Reagan Park.

E. Adopt appropriate standards and design guidelines to implement the development to ensure compatibility with surrounding neighborhoods.

F. Promote a sense of community and character by providing neighborhood signage and monumentation.

G. Create a pedestrian environment with walkable parks and commercial uses.

H. Provide a fiscally sound project that provides for ongoing maintenance and operation of neighborhood parks and streets with the additional sales tax revenues from the commercial uses.

I. Improve circulation in the Verdemont Heights community with improvements of West Little League Drive and Magnolia Avenue adjacent to the project.

J. Facilitate additional public parking with the improvement of West Little League Drive and Magnolia Avenue.

K. Reduce the need for overnight parking of RV units on the street or driveways with the provision of a RV storage yard.

L. Reduce water consumption through the use of native, drought-tolerant landscaping and "smart" irrigation systems.

M. Promote a "green" project with water- and energy-saving measures as defined in Chapter 5, Sustainable Guidelines, of the Rancho Palma Specific Plan.

B. SIGNIFICANT AND UNAVOIDABLE IMPACTS

As identified above, the project as proposed would not result in any significant and unavoidable impacts after the incorporation of the proposed mitigation measures. All project impacts would be reduced to a level of less than significant.

C. ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/ PROJECT PLANNING PROCESS

Among the factors that are used to consider project alternatives for detailed consideration in an EIR are whether they would meet most of the basic project objectives, be feasible, and whether they would avoid or substantially reduce the significant environmental impacts of the project (State CEQA Guidelines section 15126(c)).

1. Off-Site Alternative

Description: Off-site alternatives are typically included in an environmental document to avoid, lessen, or eliminate a project's significant impacts by considering the proposed development in a different location. To be feasible, development of off-site locations must be able to fulfill the project purpose and meet most of the project's basic objectives. It is anticipated that locating the proposed project on off-site lands in the surrounding vicinity would generally result in similar development potential and associated environmental impacts, depending on the developed or undeveloped nature of the selected site. However, because San Bernardino is highly urbanized and largely built out, impacts relative to biological resources, cultural resources, air quality, greenhouse gas emissions, traffic, etc., are anticipated to be similar to those that would result with the project. Therefore, an off-site alternative may or may not reduce any such impacts as compared to the project as proposed. Further, the subject site is currently under the project applicant's financial ownership (as compared to potential offsite alternatives), and residential and commercial uses allowed on the project site with City approval of a Conditional Use Permit. Existing land uses in the neighborhood (residential and commercial uses) on adjacent or nearby lands also represent similar land uses to those proposed with the project; therefore, development as proposed on the subject site would not introduce a new land use in the local setting or result in conflict with regard to operating characteristics. (EIR, p. 4-2)

Finding: The City Council rejects this alternative on the following grounds, each of which provides a full and independent justification for rejection of the alternative: (1) an alternative site would likely result in similar impacts as the project; (2) other off-site properties in the area are not under financial ownership of the project applicant making this alternative infeasible; and, (3) development on other similarly-sized, vacant properties in the vicinity may conflict with existing land use designations or zoning classifications, or result in a land use conflict, making this alternative infeasible.

2. No Development Alternative

Description: The No Development Alternative would result in the project site remaining in its current state as undeveloped land. It should be noted that, under existing conditions, the General Plan land use designation and zoning for the site are commercial, thereby indicating that the City anticipates commercial use of the property. As such, development of the site would likely occur in the future.

Although this alternative would avoid all of the significant impacts identified as resulting with project implementation, the No Development Alternative would not achieve most of the project objectives. Because the site would remain undeveloped, a mixed-use development offering commercial retail uses, new residential housing opportunities, and/or recreational amenities would not be achieved. No new residential or commercial uses would be included on the site, nor would any economic or employment benefits occur as a result. Further, the public benefit offered by expansion of Ronald Reagan Park would not be achieved. Because the Rancho Palma Specific Plan would not be implemented and no development would be undertaken, the opportunity to provide a development that would respect and contribute to the enhancement of the neighborhood character, supportive of pedestrian needs, would not occur, nor would circulation patterns or available parking in the Verdemont Heights community be improved

along West Little League Drive and Magnolia Avenue adjacent to the site. As such, this alternative would not achieve most of the project objectives. (EIR, pp. 4-2 and 4-3)

Finding: The City Council rejects this alternative on the following grounds, each of which provides a full and independent justification for rejection of the alternative: (1) the alternative would not achieve the majority of the intended project objectives.

3. Increased Residential Density Alternative

Description: The Increased Residential Density Alternative would result in development of the project site in a similar manner to the proposed project with a mixture of residential, commercial, and recreational uses. However, under this alternative, the approximately 28-acre portion of the site (Planning Areas 1 and 2) would be developed with residential land uses at a higher density than that proposed with the project. The project as proposed would allow the future development of a maximum of 120 single-family residential units in Planning Areas 1 and 2. It is assumed that under this alternative, the number of 7,000-square-foot lots would be reduced and the number of 5,000-square-foot lots would be increased to achieve the intended higher density. However, development would still be subject to preparation of a Specific Plan to ensure the density at which the site is developed remains appropriate, with particular respect for surrounding land uses. Additionally, development of Planning Area 3 would be developed with the approximately 98,000 square feet of commercial land uses, similar to the proposed project. The 0.5-acre RV storage lot would also be eliminated to further accommodate the proposed increase in residential density. The neighborhood/linear park, pocket park, and paseo, as well as dedication of the 0.5-acre portion of land to the City for the future expansion of Ronald Reagan Park, would remain as proposed with the project under this alternative for restricted use by Rancho Palma residents only. With increased development, potential impacts relative to air quality, hazards/hazardous materials (increase in the number of people exposed to wildfire danger), noise, and traffic and transportation would increase above that with the project.

This alternative would still achieve most of the project objectives, including establishing a mixed-use community for the Verdemont Heights community with a balance of land uses including commercial, single-family housing, and recreation, and providing new single-family housing in the Verdemont Heights community with two lot size categories and corresponding home sizes to serve a variety of future residents. Additionally, this alternative would retain the development's ability to achieve the objective of creating a fiscally sound project that provides for ongoing maintenance and operation of neighborhood parks and streets with the additional sales tax revenues generated from the commercial uses. (EIR, p. 4-3)

Finding: The City Council rejects this alternative on the following grounds, each of which provides a full and independent justification for rejection of the alternative: (1) the alternative would result in an increase in potential impacts relative to air quality, hazards/hazardous materials (increase in the number of people exposed to wildfire danger), noise, and traffic and transportation; and, (2) the would not provide an environmental benefit or achieve additional objectives that the proposed project would not already achieve.

D. ALTERNATIVES SELECTED FOR ANALYSIS IN THE EIR

The following project alternatives were considered in detail in the EIR. These alternatives are rejected for various reasons as set forth below.

1. No Project Alternative

Description: CEQA Guidelines Section 15126.6(e) requires that a No Project Alternative be evaluated in an EIR. The No Project analysis must discuss the circumstance under which the proposed project does not proceed. The comparison is that of the proposed project versus what can reasonably be expected to occur on the property should the proposed project not be approved. The analysis allows decision-makers to compare the impacts of approving the project with the impacts of not approving the project (CEQA Guidelines Section 5126.6(e)(3)(B)).

The No Project Alternative does not necessarily mean that a project site would remain in an undeveloped condition. If no action is taken on the proposed project, development with similar or greater impacts may be proposed at some future date.

The No Project Alternative assumes that the lead agency would take no action. Under this alternative, the proposed project site would be developed as allowed by the existing General Plan land use designation (CG-1) and zoning (CG-1) that currently apply to the subject site.

Per San Bernardino Municipal Code Section 19.06.010, the CG-1 zone is "intended to provide for the continued use, enhancement, and new development of retail, personal service, entertainment, office and related commercial uses along major transportation corridors and intersections to service the needs of the residents; reinforcing existing commercial corridors and centers and establishing new locations as residential growth occurs. Additionally, this zone permits a maximum density of 47 units per net acre for senior citizen and senior congregate care housing." Permitted uses (i.e., those uses not subject to an Administrative or Development Permit, Minor Use Permit, or Conditional Use Permit) in the CG-1 zone are identified in Table 06.01, Commercial Zones List of Permitted, Development Permitted and Conditionally Permitted Uses, in the Municipal Code.

The only permitted uses are previously existing single-family residential uses. All other land uses require City approval of either a Development Permit or a Conditional Use Permit. If such approval is sought, the site could be developed at a higher or lower density than the project as proposed (if residential uses are proposed), or at a higher or lower intensity (if commercial uses are proposed). However, it is assumed that even if a mix of commercial and residential uses are proposed with this alternative, development on the site would likely occur at an increased intensity above that which would result with the proposed project due to the nature and intent of the CG-1 zone, which is focused on commercial use types rather than residential development. Uses allowed with City approval of a Development Permit or CUP in the CG-1 zone include but are not limited to administrative and professional offices/services, automotive-related uses, hotels/motels, RV parks, night clubs/bars/lounges, restaurants, auditoriums, banks, medical offices, dry cleaners, day-care facilities, convenience stores, liquor stores, commercial bakeries, funeral parlors, libraries, mixed-use commercial, parking, religious facilities, public utility uses,

and veterinary facilities. As indicated in Table LU-2, Land Use Designations, of the General Plan, the CG-1 land use designation allows a floor area ratio (FAR) of 0.7. Therefore, the 38 acres available on the site (does not include the 3.5-acre area comprising the Cable Creek Channel) would allow development of a maximum of 1,158,696 square feet of commercial uses (if only commercial uses are proposed), or 1,060,696 square feet more than proposed with the project. However, considering the existing land use setting which includes residential uses adjacent to the site, it is anticipated that a lower FAR would likely be applied (i.e. a more appropriate FAR would be 0.25 which would yield development of a maximum of 413,820 square feet of commercial uses (if only commercial uses are proposed) on the 38 acres, or 315,820 square feet more than the proposed project.

This alternative would not result in development of the RV storage lot or any of the other proposed private or public parks or open space. Additionally, the proposed improvements along West Little League Drive and Magnolia Avenue would not occur, although other roadway improvements may be required in support of the land uses ultimately proposed.

Impacts: Alternative 1, the No Project Alternative would worsen the project's air quality, noise, and traffic and transportation impacts. (EIR, pp. 4-5 through 4-9)

The alternative would result in similar impacts to biological resources, cultural resources, and geology and soils impacts as the proposed project. (EIR, pp. 4-6 through 4-7)

The alternative would reduce the project's impacts to hazards and hazardous materials. (EIR, p. 4-7)

Objectives and Feasibility: This alternative would have the potential to meet the project objectives of establishing a mixed-use community for the Verdemont Heights community with a balance of land uses including commercial, single-family housing, and recreation, and providing new single-family housing in the Verdemont Heights community with two lot size categories and corresponding home sizes to serve a variety of future residents. However, this would only be achieved if residential uses were actually proposed. Similarly, the objective of reducing the need for overnight parking of RV units on the street or driveways could only be achieved if an RV storage lot is developed, and the objective of increasing the Verdemont Heights community's recreation opportunities by expanding the size and/or amenities of Ronald Reagan Park could only be achieved if such use of a portion of the site is proposed. Several of the other more general project objectives, including reducing water consumption through the use of native, drought-tolerant landscaping and "smart" irrigation systems, and promoting a "green" project with water- and energy-saving measures, could be achieved whether the site is developed with residential, commercial, or recreational uses. Improvements in parking and/or circulation on area roadways would also be dependent on the type and intensity of future land uses proposed.

Finding: The City Council rejects Alternative 1, the No Project Alternative on the following grounds, each of which individually provides sufficient justification for rejection of this alternative: (1) Alternative 1 fails to meet several of the project objectives; (2) Alternative 1 would increase impacts relative to air quality, noise, and traffic and transportation given the intensity of development allowed under current land use and zoning; and (3) Alternative 1 is

infeasible given that retention of the site in its vacant condition would be inconsistent with the City of San Bernardino General Plan. Therefore, Alternative 1 is eliminated from further consideration.

2. No Commercial Use Alternative

Description: The proposed project would develop approximately 9.3 acres of the property (Planning Area 3) with 98,000 square feet of commercial development. Under the No Commercial Use Alternative, this acreage would instead be developed with residential uses on 5,000-square-foot lots. Assuming roughly one-third of the 9.3-acre land area would be used to support on-site roadway and landscaping improvements, it is estimated that the remaining acreage (approximately 270,072 square feet) could be developed with up to 54 residential lots of 5,000 square feet each. Development at this density would be reflective of that proposed for the adjacent Planning Area 2 under the proposed project (and that would also occur under this alternative).

This alternative would still result in development of the RV storage lot (Planning Area 2), and the proposed public park (0.5 acre), neighborhood/linear park (1.4 acres), and Cable Creek Channel open space (3.5 acres) would also remain as part of this alternative. This alternative would require approval of a CUP to allow residential uses on-site, and a Specific Plan would be prepared to guide the overall character and appearance of development. All other infrastructure improvements (utilities, roadway improvements, etc.) would remain the same as those which would occur with the project as proposed.

Impacts: The No Commercial Use Alternative would worsen the project's hazards and hazardous materials impacts. (EIR, p. 4-11)

The alternative would result in similar impacts to biological resources, cultural resources, and geology and soils impacts as the proposed project. (EIR, pp. 4-10 through 4-11)

The alternative would reduce the project's impacts to air quality, noise, traffic and transportation. (EIR, pp. 4-10 through 4-12)

Objectives and Feasibility: This alternative would achieve several of the project objectives by providing new single-family housing in the Verdemont Heights community with two lot size categories and corresponding home sizes to serve a variety of future residents and would increase the Verdemont Heights community's recreation opportunities by expanding the size and/or amenities of Ronald Reagan Park. Further, through preparation of a Specific Plan, this alternative could achieve the objectives of adopting appropriate standards and design guidelines to implement the development to ensure compatibility to surrounding neighborhoods; promoting a sense of community and character by providing neighborhood signage and monumentation; improving circulation in the Verdemont Heights community with improvements of West Little League Drive and Magnolia Avenue adjacent to the project; facilitating additional public parking with the improvement of West Little League and Magnolia Avenue; and reducing the need for overnight parking of RV units on the street or driveways with the provision of a RV storage yard. Additionally, this alternative would reduce water consumption through the use of

native, drought-tolerant landscaping and "smart" irrigation systems, and promote a "green" project with water- and energy-saving measures as defined in the Specific Plan.

However, as no commercial uses would be proposed, this alternative would not establish a mixed-use community for the Verdemont Heights community with a balance of land uses including commercial, single-family housing, and recreation; deliver an appropriately sized neighborhood commercial center that provides a mix of retail uses with employment growth and increased sales tax for San Bernardino; create a pedestrian environment with walkable parks and commercial uses; or, provide a fiscally sound project that provides for ongoing maintenance and operation of neighborhood parks and streets with the additional sales tax revenues from the commercial uses. (EIR, pp. 4-12 and 4-13)

Finding: The City Council rejects Alternative 2, the No Commercial Use Alternative, on the following grounds, each of which provides sufficient justification for rejection of this alternative: (1) Alternative 2 fails to meet a majority of the project objectives, including providing a mixed-use community with a balance of uses including commercial, single-family housing, and recreation. Therefore, Alternative 2 is eliminated from further consideration.

3. Increased Commercial Use Alternative

Description: To allow an increase in on-site commercial uses, the proposed residential development in Planning Area 2 would instead be developed with commercial uses under this alternative. As such, this alternative would remove approximately 11.3 acres from residential use, reducing the overall number of planned residential units to 63 (to be developed in Planning Area 1 under the proposed project and with this alternative). As with the proposed project, the 63 residential units would be developed on 7,000-square-foot lots.

The overall commercial area would total approximately 20.6 acres (Planning Areas 2 and 3, 11.3 and 9.3 acres, respectively). As indicated in Table LU-2, Land Use Designations, of the General Plan, the CG-1 land use designation allows a floor area ratio (FAR) of 0.7. However, considering the existing land use setting which includes residential uses adjacent to the site, it is anticipated that a lower FAR would likely be applied (i.e. a more appropriate FAR would be 0.25 which would yield development of a maximum of 224,334 square feet of commercial uses (if only commercial uses are proposed) on the 20.6 acres, or 126,334 square feet more than that proposed with the project.

With 63 residential units, 1.1 acres of parkland are required per City code; this would include Public Park (0.5 acre) and neighborhood/linear park (0.6 acre). This alternative would not result in development of the RV storage lot; however, Cable Creek Channel open space (3.5 acres) would remain as part of this alternative. This alternative would require approval of a CUP to allow the residential uses on-site, and a Specific Plan would be prepared to guide the overall character and appearance of development. All other infrastructure improvements (utilities, roadway improvements, etc.) would remain the same as those which would occur with the project as proposed.

Impacts: The Increased Commercial Use Alternative would worsen the project's air quality, noise, and traffic and transportation impacts. (EIR, pp. 4-13 through 4-16)

The alternative would result in similar impacts to biological resources, cultural resources, and geology and soils impacts as the proposed project. (EIR, p. 4-14)

The alternative would reduce the project's impacts to hazards and hazardous materials. (EIR, p. 4-15)

Objectives and Feasibility: The Increased Commercial Use Alternative would meet all of the project objectives with the exception of providing new single-family housing in the Verdemont Heights community with two lot size categories and corresponding home sizes to serve a variety of future residents, as only residential lots of 7,000 square feet would be offered. Mainly, development under this alternative would achieve the objective of providing a mixed-use community for the Verdemont Heights community with a balance of land uses including commercial, single-family housing, and recreation. Additionally, this alternative would deliver an appropriately sized neighborhood commercial center that provides a mix of retail uses with employment growth and increased sales tax for San Bernardino, while increasing the Verdemont Heights community's recreation opportunities by expanding the size and/or amenities of Ronald Reagan Park and creating a pedestrian environment with walkable parks and commercial uses. A Specific Plan would be prepared with appropriate standards and design guidelines to ensure the development's compatibility with surrounding neighborhoods and promotion of a sense of community and character by providing neighborhood signage and monumentation. (EIR, p. 4-16)

Finding: The City Council rejects Alternative 3, the Increased Commercial Use Alternative on the following grounds, each of which individually provides sufficient justification for rejection of this alternative: (1) the alternative would increase the severity of air quality, noise, and traffic/transportation impacts; (2) the alternative would address area demand for residential housing to a lesser extent than the proposed project; and, (3) the alternative meets the project objectives to a lesser extent than the proposed project. Therefore, Alternative 3 is eliminated from further consideration.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 indicates that if the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. The context of an environmentally superior alternative is based on consideration of several factors, including the proposed project's objectives and the alternative's ability to fulfill the goals while reducing potential impacts to the surrounding environment.

The proposed project would result in significant impacts with regard to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, traffic and transportation, and utilities, public services, and recreation. Impacts resulting from the No Project Alternative and the Increased Commercial Use Alternative would be largely similar to or greater than the proposed project. However, the No Commercial Use Alternative

would achieve reduced impacts related to air quality, noise, and traffic and transportation, thereby making it environmentally superior to the proposed project with regard to these issue areas. Therefore, the No Commercial Use Alternative is considered the Environmentally Superior Alternative.

However, this alternative would not satisfy the basic project objectives of providing a mixed-use community, including a commercial center, along with residential housing and recreational amenities, or contribute to increased employment growth or increased sales tax revenue.

However, as determined above, the City Council rejects the No Commercial Use Alternative on the following grounds, each of which individually provides sufficient justification for rejection of this alternative: (1) the alternative does not meet, or meets to a lesser extent, the project objectives as compared to the proposed project. Therefore, this alternative is eliminated from further consideration.

NO OVERRIDING CONSIDERATIONS REQUIRED

No significant and unavoidable impacts were identified through preparation of the EIR. All significant impacts can be reduced to less than significant through implementation of the proposed mitigation measures. Therefore, a Statement of Overriding Considerations is not required for the proposed project.

ADOPTION OF THE MITIGATION MONITORING AND REPORTING PROGRAM

Pursuant to Public Resources Code section 21081.6, the Mayor and City Council hereby adopts the Mitigation Monitoring and Reporting Program attached to this Resolution as **Exhibit A.** Implementation of the mitigation measures contained in the Mitigation Monitoring and Reporting Program is hereby made a condition of approval of the project. In the event of any inconsistencies between the mitigation measures set forth herein and the Mitigation Monitoring and Reporting Program, the Mitigation Monitoring and Reporting Program shall control.

CERTIFICATION OF THE EIR

The City Council finds that it has been presented with the EIR, which it has reviewed and considered, and further finds that the EIR is an accurate and objective statement that has been completed in full compliance with CEQA, the State CEQA Guidelines and the City's Local CEQA Guidelines and that the EIR reflects the independent judgment and analysis of the City Council.

The City Council declares that no evidence of new significant impacts as defined by the State CEQA Guidelines section 15088.5 have been received by the City Council after circulation of the Draft EIR which would require recirculation.

Therefore, the City Council hereby certifies the EIR based on the entirety of the record of proceedings.

CUSTODIAN OF RECORD

The documents and materials that constitute the record of proceedings on which this Resolution has been based are located at the City of San Bernardino Community Development Department, 300 North "E" Street, 3rd Floor, San Bernardino, California, 92418. The custodian for these records is the Community Development Department. This information is provided in compliance with Public Resources Code section 21081.6.

NOTICE OF DETERMINATION

A Notice of Determination shall be filed with the County of San Bernardino and the State Clearinghouse within 5 (five) working days of final project approval.

PASSED, APPROVED and ADOPTED this _xx_ day of _____, 2017.

_____
R. Carey Davis
Mayor, City of San Bernardino

ATTEST:

_____
Georgeann Hanna, City Clerk

APPROVED AS TO FORM:

_____
City Attorney

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Exhibit A

MITIGATION MONITORING AND REPORTING PROGRAM

1. INTRODUCTION

This document is the Mitigation Monitoring and Reporting Program (MMRP) for the Rancho Palma Project (proposed project). An MMRP is required for the proposed project because the Environmental Impact Report (EIR) prepared for the project has identified significant adverse impacts, and measures have been identified to mitigate those impacts. This MMRP has been prepared pursuant to Section 21081.6 of the California Public Resources Code, which requires public agencies to "adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment."

2. MITIGATION MONITORING AND REPORTING PROGRAM

As the lead agency, the City of San Bernardino will be responsible for monitoring compliance with all mitigation measures. Different City departments are responsible for various aspects of the project. The MMRP identifies the department with the responsibility for ensuring that each individual mitigation measure is completed; however, it is expected that one or more departments will coordinate efforts to ensure such compliance.

The MMRP is presented in tabular form on the following pages. The components of the MMRP are described briefly below.

- **Mitigation Measure:** The mitigation measures are taken from the EIR, in the same order they appear in the EIR.
- **Timing:** Identifies at which stage of the project the mitigation must be completed.
- **Monitoring Responsibility:** Identifies the department within the City with responsibility for mitigation monitoring.
- **Verification (Date and Initials):** Provides a contact who reviewed the mitigation measure and the date that the measure is determined to be complete.

Mitigation Measure		Timing	Monitoring Responsibility	Verification (Date and Initials)
3.3. Biological Resources				
BIO-1	All construction and clearing activities shall be conducted outside of the avian nesting season (January 15 to August 31), when feasible. A migratory nesting bird survey of the project's impact footprint for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist within seventeen (17) days prior to initiating vegetation clearing or ground disturbance. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be determined by the biologist in consultation with the CDFW and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined that the young birds have successfully fledged and a monitoring report has been submitted to the CDFW for review and approval.	Requirements shall be incorporated into all rough and/or precise grading plan documents. The project applicant's construction inspector shall monitor to ensure that measures are implemented during construction.	City of San Bernardino Planning Department	

Mitigation Measure		Timing	Monitoring Responsibility	Verification (Date and Initials)
BIO-2	A preconstruction burrowing owl survey shall be conducted by a qualified biologist at least 30 days prior to construction activities to determine whether there are any active burrowing owl burrows within or adjacent to the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to the CDFW for approval, outlining standard burrowing owl burrow closing procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow/territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow depending on the time of year and the level of disturbance near the site in accordance with guidelines specified by the CDFW.	Prior to any vegetation removal or ground-disturbing activities.	City of San Bernardino Planning and Public Works Departments	
3.4 Cultural Resources				
CUL-1	If previously undocumented resources are identified on the project site during earth-moving activities, a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall be contacted to assess the nature and significance of the find and to divert construction activities, if necessary. If evidence of archaeological resources (e.g., chipped or ground stone, historical debris, building foundations, or human bone) is identified during excavation, all work within 50 feet of	During ground-disturbing construction activities.	City of San Bernardino Engineering and Planning Departments	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	the discovery site shall cease until the project archaeologist can evaluate the significance of the resource. In the event of a new find, salvage excavation and reporting shall be required, in conformance with established regulatory protocols.			
CUL-2	If during grading or construction activities, cultural resources are discovered on the project site, work shall be halted immediately within 50 feet of the discovery, and the resources shall be evaluated by a qualified archaeologist (retained by the applicant) and the relevant Native American tribes or bands notified (i.e., Ramona, San Manuel, Soboba, San Fernando, Agua Caliente, Morongo, and Pechanga Bands, and the Serrano Nation), as appropriate. Any unanticipated cultural resources that are discovered shall be evaluated and a final report prepared by the qualified archaeologist. The report shall include a list of the resources discovered, documentation of each site/locality, and interpretation of the resources identified, and the method of preservation and/or recovery for identified resources. In the event the significant resources are recovered and if the qualified archaeologist, the tribe, and/or the band determines the resources to be historic or unique, avoidance and/or mitigation would be required pursuant to and consistent with CEQA Guidelines Sections 15064.5 and 15126.4, Public Resources Code Section 21083.2.	During ground-disturbing construction activities.	City of San Bernardino Building and Planning Departments	
CUL-3a	If human remains are encountered, California Health and Safety Code Section 7050.5 requires that no further disturbance occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section	During ground-disturbing construction activities.	City of San Bernardino Engineering and Planning Departments	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the NAHC shall identify the most likely descendant within 24 hours of receiving notification from the coroner. The most like descendant shall then have 48 hours to make recommendation and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.			
CUL-3b	All cultural materials, with the exception of sacred items, burial goods, and human remains, collected during the grading monitoring program and from any previous archaeological studies and excavations on the project site shall be curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to the appropriate tribe's curation facility, which meets the standards set forth in 36 Code of Federal Regulations (CFR) Part 79 regulating federal repositories.	During ground-disturbing construction activities.	City of San Bernardino Engineering and Planning Departments	
CUL-3c	All sacred sites, should they be encountered on the project site, shall be avoided and preserved as the preferred mitigation, if feasible, as determined by a qualified professional in consultation with the tribe(s). To the extent that a sacred site cannot be feasibly preserved in place or left in an undisturbed state, mitigation shall be required pursuant to and consistent	During ground-disturbing construction activities.	City of San Bernardino Engineering and Planning Departments	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	with Public Resources Code Section 21083.2 and CEQA Guidelines Sections 15064.5 and 15126.4.			
3.5 Geology and Soils				
GEO-1	Prior to ground-disturbing activities, the project applicant shall retain a qualified paleontologist to monitor all initial ground-disturbing activities in native soils or sediments. If the paleontologist, upon observing initial earthwork, determines there is low potential for discovery, no further action shall be required and the paleontologist shall submit a memo to the City confirming a finding of low potential. Should any paleontological resources (i.e., fossils) be uncovered during project construction activities, all work within a 100-foot radius of the discovery site shall be halted or diverted to other areas on the site and the City shall be immediately notified. The qualified paleontologist shall evaluate the finds and recommend appropriate next steps to ensure the resource is not substantially adversely impacted, including but not limited to avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Further ground disturbance shall not resume within a 100-foot radius of the discovery site until an agreement has been reached between the project applicant, the qualified paleontologist, and the City of San Bernardino as to the appropriate preservation or mitigation measures to ensure that the resource is not substantially adversely impacted.	Prior to ground-disturbing construction activities.	City of San Bernardino Planning Department	
3.7 Hazards and Hazardous Materials				

Mitigation Measure		Timing	Monitoring Responsibility	Verification (Date and Initials)
HAZ-1	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 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.	During ground-disturbing construction activities.	City of San Bernardino Public Health and Planning Departments	
3.10 Noise				
NOI-1	Prior to commencement of and/or during construction, as appropriate, the project applicant shall demonstrate, to the satisfaction of the City of San Bernardino Planning Department that the project complies with the following: • Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices. • Property owners and occupants located within 200 feet of the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of approximately 50 feet, shall be posted at the project construction site. All	Prior to commencement of and during construction.	City of San Bernardino Planning Department	

Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
notices and signs shall be reviewed and approved by the City of San Bernardino Planning Department, prior to mailing or posting, and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints. • The contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present on-site during all construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Contractor shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Planning Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator. • Construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.			

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	• Construction haul routes shall be designed to avoid noise-sensitive uses (e.g., residences, convalescent homes, schools, churches, etc.), to the extent feasible. • During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.			
NOI-2a	Prior to issuance of a building permit, and prior to final occupancy, the project applicant shall demonstrate that proper sound wall design has been incorporated into the proposed residential and commercial development areas, consistent with Exhibit ES-A of the final approved traffic impact analysis, to reduce potential sound levels to below the City's established noise thresholds. The project design shall include construction of a minimum effective 9-foot-high noise barrier for the outdoor living areas (backyards) of lots 47 to 55 and lots 75 to 81 facing Interstate 215 and West Little League Drive. The planned noise barrier shall consist of a combination 1-foot-high berm with an 8-foot-high block wall. In addition, the construction of a minimum effective 7-foot-high noise barrier shall be constructed for lot 82 facing West Little League Drive. Additionally, 6-foot-high noise barriers shall be constructed for all other lots adjacent to Magnolia Avenue and the commercial retail land use on the project site. All walls shall be constructed on-site consistent with the final improvement plans as approved by the City of San Bernardino.	Prior to issuance of building permit and prior to final occupancy.	City of San Bernardino Planning Department	
NOI-2b	During construction, and prior to final occupancy, the recommended noise control barriers shall be constructed consistent with that shown on the approved Tentative Tract Map so that the top of each wall and/or	During construction and prior to final occupancy.	City of San Bernardino Planning Department	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	berm combination extends to the recommended height (as indicated in NOI-2a) above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height (as indicated in NOI-2a) above the highest point between the residence and the road. The barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways. The noise barrier shall be constructed using the following materials: • Masonry block • Stucco veneer over wood framing (or foam core), or 1-inch-thick tongue and groove wood of sufficient weight per square foot • Glass (0.25 inch thick) or other transparent material with sufficient weight per square foot • Earthen berm • Any combination of these construction materials The barrier shall consist of a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking.			
NOI-3	During construction, and prior to final occupancy, to satisfy the City of San Bernardino's 45 dBA CNEL interior noise level criteria, lots facing Interstate 215, West Little League Drive, and Magnolia Avenue shall require a noise reduction of up to 29.3 dBA and a windows closed condition requiring a means of mechanical ventilation (e.g., air conditioning). To ensure that the City's 45 dBA	During construction and prior to final occupancy.	City of San Bernardino Planning Department	

Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
CNEL interior noise level is met, the following measures shall be implemented: • Exterior walls: If wood construction is used, exterior walls shall be furnished on the outside with siding-on-sheathing, stucco, or brick veneer. The interior surface shall be at least 0.5-inch gypsum board. Insulation having a minimum of R-11 shall be placed between the studs. Masonry walls, if used, shall have at least one surface of the wall plastered, painted, or covered with gypsum wallboard or approved materials. At least R-11 insulation shall be placed between the studs. There shall be no direct openings such as mail slots or ventilation units. • Windows: o Lots 47 to 55 and lots 75 to 82 facing I-215 require upgraded second-floor windows with a minimum sound transmission class (STC) rating of 34. o All other windows and sliding glass doors shall be well-fitted, well-weather-stripped assemblies and shall have a minimum STC rating of 27. • Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27. • Roof: Roof sheathing of wood construction shall be well-fitted or caulked plywood of at least 0.5 inch thick. Ceilings shall be well-fitted, well-sealed gypsum board of at least 0.5 inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. Skylights shall have a minimum STC of 34.			

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	• Attic: Attic ventilation shall be oriented away from Interstate 215. If such an orientation cannot be avoided, an acoustical baffle shall be placed in the attic space behind the vents. • Ventilation: A ventilation system shall be provided that will provide at least the minimum air circulation and fresh air supply requirements of the Building Code in each habitable room without opening any window, door, or other opening to the exterior. All concealed ductwork shall be insulated flexible glass fiber ducting that is at least 10 feet long between any two points of connection. Kitchen cooktop vent hoods shall be the non-ducted recirculating type with no ducted connection to the exterior. • Wall and ceiling openings: Openings in the shell of the residence that degrade its ability to achieve an interior CNEL rating of 45 dBA or less when all doors and windows are closed are prohibited unless access panels, pet doors, mail delivery drops, air conditioning, or other openings are designed to maintain the 45 dBA CNEL (or less) standard in the room to which they provide access.			
3.12 Traffic and Circulation				
TRA-1	Prior to the issuance of building permits, the project applicant shall be required to construct or pay its fair share to create a second southbound turn lane at the intersection of University Parkway/Kendall Drive (#19).	Prior to issuance of a building permit.	City of San Bernardino Planning and Public Works Departments	
TRA-2	The project applicant shall prepare and implement a traffic management plan (TMP) to minimize inconveniences during construction. Included among the provisions, the contractor shall coordinate with the City	Prior to and during construction.	City of San Bernardino Planning and Public Works Departments	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	of San Bernardino, the County of San Bernardino, and local police, fire, and emergency medical service providers regarding construction scheduling and any other practical measures to maintain adequate access to properties and response times. The TMP shall also limit construction activity to the extent feasible and limit all soil export activities to occur outside of the typical weekday morning (7:00 AM to 9:00 AM) and weekday evening (4:00 PM to 6:00 PM) peak commute hours. The TMP shall include contact information for members of the general public who may have questions concerning the project and access to their property. Two-way traffic through the construction zone shall be maintained throughout the construction period.			
TRA-3	Prior to issuance of a grading permit, the project applicant shall be required to construct or pay its fair share of the following traffic improvements: **Palm Avenue/Belmont Avenue (#10)** • Restripe northbound with one left turn lane and one shared through-right turn lane • One southbound left turn lane • One eastbound left turn lane • One westbound left turn lane **OR** • Fair share contribution: 12.1 percent **Palm Avenue/Irvington Avenue (#11)** • Eastbound right turn lane with overlap phase **OR** • Fair share contribution: 10.9 percent	Prior to issuance of grading permits.	City of San Bernardino Planning and Public Works Departments	

Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
Palm Avenue/I-215 Southbound Ramps (#14) (Measure "I") • 2nd southbound left turn lane **Palm Avenue/Hallmark Parkway (#15) (Measure "I")** • 2nd northbound through lane • 2nd southbound through lane **University Parkway/Kendall Drive (#19) (Measure "I")** • 2nd southbound left turn lane • 1 northbound right turn lane • 2nd southbound left turn lane • 3rd eastbound through lane • 1 eastbound right turn lane • 3rd westbound through lane • Modify traffic signal with overlap phasing on the northbound and eastbound right turn lanes			