

4.11 Transportation and Traffic

This section evaluates the potential for implementation of the proposed project to impact traffic operations and circulation on and off the proposed project site, including the potential for project implementation to interfere with emergency access and conflict with applicable alternative transportation programs, practices, and procedures. Information in this section is based on the Brasada Residential Project Traffic Impact Analysis prepared by Urban Crossroads (2010) and included as Appendix I of this EIR. The Traffic Impact Analysis analyzed the following traffic scenarios:

1. Existing
2. Existing plus Ambient Growth and Proposed Project
3. Future Year 2017 without Proposed Project
4. Future Year 2017 with Proposed Project

4.11.1 Environmental Setting

The following discussion provides a description of the existing roadways serving the proposed project site, relevant level of service (LOS) standards, existing LOS operations, and existing transit service.

4.11.1.1 Roadways Serving the Project Site

The proposed project site is located north of Foothill Boulevard and east of Cataract Avenue within the city of San Dimas in Los Angeles County. Primary access to the proposed project site would be provided by Foothill Boulevard via Cataract Avenue. Due to the isolated location, relatively small size of the proposed project (61 single family residential units), anticipated trip generation and the anticipated trip distribution, the study area for the Traffic Impact Analysis included only the existing intersection located at Cataract Avenue (north-south) at Foothill Boulevard (east-west). Therefore, the study area for the Traffic Impact Analysis is limited to the Cataract Avenue/Foothill Boulevard intersection. This intersection is currently unsignalized and southbound traffic flow is controlled by a stop sign. Figure 4.11-1 identifies the study area for the proposed project.

Cataract Avenue is currently a two lane roadway that extends from Foothill Boulevard approximately 800 feet to the north where it currently terminates at the southern boundary of the project site.

Foothill Boulevard is a four lane roadway with a center median and on-street parking. The current speed limit in the proposed project area of Foothill Boulevard is 40 miles per hour.

LOS Standards

LOS is a qualitative measure of operational conditions along freeways and roadways and at intersections, and their perception by motorists and/or passengers in terms of speed, travel time, freedom to maneuver, comfort and convenience, and safety. LOS is expressed as a letter designation from A through F, with A representing the best operating conditions and F representing the worst. The LOS standards utilized by the City of San Dimas for unsignalized intersections are shown in Table 4.11-1. It is the City's policy that LOS A through D represents acceptable unsignalized intersection operations, while LOS E and F are considered deficient for unsignalized intersection operations.

Table 4.11-1 Unsignalized Intersection LOS Standards

| LOS | Average Total Delay (Seconds) |
|-----|-------------------------------|
| A | 0.00 - 10.00 |
| B | 10.01 - 15.00 |
| C | 15.01 - 25.00 |
| D | 25.01 - 35.00 |
| E | 35.01 - 50.00 |
| F | > 50.00 |

Source: TRB 2000

Existing LOS

The Traffic Impact Analysis calculated existing AM and PM peak hour traffic operations for the Cataract Avenue/Foothill Boulevard intersection. The results of the existing conditions analysis are summarized in Table 4.11-2, along with the existing intersection lane configuration and traffic control devices. Under existing conditions, the Cataract Avenue/Foothill Boulevard intersection operates at an acceptable LOS of B during AM peak hours and an acceptable LOC of C during PM peak hours.

Table 4.11-2 Existing LOS

| Intersection | Traffic Control | Intersection Approach Lanes ⁽¹⁾ | | | | Delay ⁽²⁾ (Seconds) | | LOS | | | | | | | | | |
|---------------------------------------|-------------------|--|---|----|---|--------------------------------|---|-----|---|---|--------------|--------------|--------------|--------------|------|---|---|
| | | NB | | SB | | EB | | WB | | | | | | | | | |
| | | L | T | R | L | T | R | L | T | R | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour | | | |
| Cataract Avenue at Foothill Boulevard | Cross Street Stop | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 14.5 | 18.9 | B | C |

⁽¹⁾ NB = northbound; SB = southbound; EB = eastbound; WB = westbound; L = left; T= through; R=right; 0, 1, 2 = Intersection Lanes. When a right turn is designated, the lane can be either striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

⁽²⁾ Delay and LOS were calculated using the following analysis software: Traffix, Version 8.0 (2008). Per the 2000 HCM, for intersections with cross street stop control, the delay and LOS for worst individual movement (or movements sharing a single lane) are shown.

Source: Urban Crossroads 2010

Existing Transit Service

The proposed project area is currently served by the Foothill Transit System, which provides bus service to the San Gabriel and Pomona Valleys. Foothill Transit bus lines 187 and 284 operate along Foothill Boulevard near the vicinity of the proposed project site. The bus stop closest to the proposed project site along Route 187 is located at the intersection of Foothill Boulevard and Woodglen Drive, approximately 0.5 miles south of the proposed project site. The bus stop closest to the proposed project site along Route 284 is located at the intersection of Foothill Boulevard and Lone Hill Avenue, approximately 1.5 miles southeast of the proposed project site.

4.11.2 Regulatory Framework

4.11.2.1 Federal

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. Pedestrian facility design must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines (Sections 4.3, 4.7 and 4.8) can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states, "When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path." Certain facilities, such as historic buildings, may be exempt from ADA requirements.

Highway Capacity Manual

The Highway Capacity Manual 2000 (HCM 2000), prepared by the federal Transportation Research Board (TRB), last updated in 2004, is the result of a collaborative multiagency effort between the TRB, Federal Highway Administration and American Association of State Highway and Transportation Officials. The HCM 2000 contains concepts, guidelines, and procedures for computing the capacity and quality of service of various highway facilities, including freeways, signalized and unsignalized intersections, rural highways, and the effects of transit, pedestrians, and bicycles on the performance of these systems.

4.11.2.2 State

California Department of Transportation Standards

The California Department of Transportation (Caltrans) is responsible for planning, designing, building, operating, and maintaining California's \$300 billion, 50,000-lane-mile State road system. Caltrans sets standards, policies, and strategic plans that aim to do the following: 1) provide the safest transportation system in the nation for users and workers; 2) maximize transportation system performance and accessibility; 3) efficiently deliver quality transportation projects and services; 4) preserve and enhance California's resources and assets; and 5) promote quality service. Caltrans has the discretionary authority to issue special permits for the use of California state highways for other than normal transportation purposes. Caltrans also reviews all requests from utility companies, developers, volunteers, nonprofit organizations, and others desiring to conduct various activities within the California highway right of way.

Statewide Transportation Improvement Program

The California 2007 Statewide Transportation Improvement Program (STIP), approved by the U.S. Department of Transportation in October 2006, is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Title 23 of the Federal Code of Regulations. The STIP is prepared by Caltrans in

cooperation with the Metropolitan Planning Organizations (MPOs) and the Regional Transportation Planning Agencies.

Transportation Development Act

The Transportation Development Act (TDA), enacted in 1972, provides two major sources of funding for public transportation: the Local Transportation Fund (LTF) and the State Transit Assistance (STA) Fund. These funds are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales, and transit performance. Some counties have the option of using LTF for local streets and roads projects, if they can show there are no unmet transit needs. The branch provides oversight of the public hearing process used to identify unmet transit needs. It provides interpretation of and initiates changes or additions to legislation and regulations concerning all aspects of the TDA. It also provides training and documentation regarding TDA statutes and regulations. Caltrans ensures local planning agencies complete performance audits required for participation in the TDA.

4.11.2.3 Local

County of Los Angeles Congestion Management Program

The Congestion Management Program (CMP) for Los Angeles County is updated every five years by the Los Angeles County Metropolitan Transit Authority in accordance with Proposition 111, passed in June 1990. The most recent version of the document is the 2004 CMP adopted on July 22, 2004. The CMP was established in California to more directly link land use, transportation and air quality and to develop a partnership among transportation decision makers on devising appropriate transportation solutions that include all modes of travel. The CMP alone does not solve all of the mobility issues within Los Angeles County, as many mobility issues are localized traffic concerns and are not addressed through the CMP. Nevertheless, the CMP is an important tool for addressing transportation needs throughout Los Angeles County. The CMP also demonstrates the benefits of nine years of highway monitoring, eight years of local growth monitoring, and 13 years of local transportation improvements.

Regional Comprehensive Plan

The 2008 Regional Comprehensive Plan (RCP) is a major advisory plan prepared by the Southern California Association of Governments (SCAG) that addresses regional issues including housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use in preparing local plans and handling local issues of regional significance. The RCP presents a vision of how Southern California can balance resource conservation, economic vitality, and quality of life. It identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure progress toward a more sustainable region. The RCP includes the following nine chapters: Land Use and Housing, Open Space and Habitat, Water, Energy, Air Quality, Solid Waste, Transportation, Security and Emergency Preparedness, and Economy.

Regional Transportation Plan

On May 8, 2008 SCAG adopted the “2008 Regional Transportation Plan (RTP): Making the Connections”, which is a component of the RCP. The 2008 RTP presents the transportation vision for the region through the year 2035 and provides a long-term investment framework for addressing the region’s

transportation and related challenges. The plan focuses on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic expansion of the system to accommodate future growth. The RTP was developed with active participation from local agencies throughout the region, elected officials, the business community, community groups, private institutions, and private citizens.

Regional Transportation Improvement Plan

The 2008 Regional Transportation Improvement Program (RTIP) is a capital listing of all transportation projects proposed over a six-year period for the SCAG region. The RTIP projects include highway improvements, transit, rail and bus facilities, high occupancy vehicle lanes, signal synchronization, intersection improvements, freeway ramps and other facilities. The RTIP implements the projects and programs listed in the RTP and are developed in compliance with state and federal requirements. County Transportation Commissions have the responsibility of proposing county projects, using the most current RTP policies, programs, and projects as a guide, from among submittals by cities and local agencies. The locally prioritized lists of projects are forwarded to SCAG for review. From this list, SCAG develops the RTIP based on consistency with the current RTP, inter-county connectivity, financial constraints and conformity satisfaction.

City of San Dimas General Plan Circulation Element

The Circulation Element of the San Dimas General Plan represents an infrastructure plan that provides for the circulation of people, goods and resources. This element identifies the general location and extent of existing and proposed major roads, highways, trails, railroad and transit routes, terminals, and other local public utilities and facilities. The Circulation Element is closely related to the Land Use Element of the General Plan. The provisions of the Circulation Element support the goals, objectives, and policies of the Land Use Element, while the Land Use Element is a reflection of the community’s circulation system and the planning proposals for that system.

4.11.3 Project Impacts and Mitigation

4.11.3.1 Issue 1 – Increases in Traffic

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|---|--|
| Transportation and Traffic Issue 1 Summary | |
| Would implementation of the proposed project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, or 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? | |
| Impact: Implementation of the proposed project would not result in a substantial increase in traffic. | Mitigation: No mitigation is required. |
| Significance Before Mitigation: Less than significant. | Significance After Mitigation: Less than significant. |

Standards of Significance

Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would:

1. 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.
2. Conflict with an applicable congestion management program, including but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The City of San Dimas has established that a peak hour intersection operation of LOS D or better is considered acceptable; therefore, any intersection operating at LOS E and LOS F is considered deficient.

Impact Analysis

The following discussion provides a summary of the methodology used in the Traffic Impact Analysis (included as Appendix I of this EIR) and the expected trip generation from implementation of the proposed project. In this analysis, potential traffic-related impacts from implementation of the proposed project are examined under the following scenarios:

1. Existing Conditions LOS with Ambient Growth and Proposed Project
2. Year 2017 LOS without Proposed Project
3. Year 2017 LOS with Proposed Project

Due to the isolated location, relatively small size of the proposed project, and the anticipated trip generation and trip distribution, the study area for the Traffic Impact Analysis included only the existing intersection located at Cataract Avenue (north-south) at Foothill Boulevard (east-west). Therefore, the study area for the Traffic Impact Analysis is limited to the Cataract Avenue/Foothill Boulevard intersection. This intersection is currently unsignalized and southbound traffic flow is controlled by a stop sign. Existing and anticipated LOS levels for the Cataract Avenue/Foothill Boulevard intersection were based upon the HCM 2000 Methodology by the Transportation Research Board.

For year 2017 scenarios without and with the proposed project's traffic conditions, cumulative development and area-wide (ambient) growth calculations were added to existing volumes in the vicinity of the proposed project site. Cumulative development projects included in the traffic analysis were provided by the Planning Departments at the City of San Dimas and the City of Glendora, as shown in Table 4.0-2. Cumulative projects that would not add traffic to the study area intersection (Cataract Avenue/Foothill Boulevard), due to proximity or a nominal amount of trips generated by the project (e.g. cell towers), were excluded from the traffic analysis. Although some cumulative projects would generate traffic on intersections other than the Cataract Avenue/Foothill Boulevard intersection, only cumulative project traffic anticipated to be generated at the Cataract Avenue/Foothill Boulevard

intersection was considered in the traffic analysis. Of the cumulative projects listed in Table 4.0-2, a total of 19 were analyzed in the Traffic Impact Analysis, including: NWC Bonita Avenue and San Dimas Canyon Road, 510 E. Arrow Highway, 671 E. Bonita Avenue, SEC Lone Hill and Gladstone Street, 627 W. Allen Avenue, 818 W. Gladstone Street, 155 N. Eucla Avenue, Grove Station, 245 E. Bonita Avenue, Diamond Ridge, Cataract Glendora, JPI Sevilla Project, Glendora Station Project, Tract 46680, Tract 46916, Glendora Commons, NJD, Grand Avenue Retail, and Citrus Valley Office. In addition to incorporating the anticipated trip generation from relevant cumulative projects, the Traffic Impact Analysis factored in an ambient growth rate of two percent per year for a total of 14 percent over the seven year period between 2010 and 2017. The results of the Traffic Impact Analysis are summarized below.

Trip Generation

Trip generation represents the amount of traffic that would be attracted and produced by the proposed project. Trip generation rates were calculated based upon the land uses associated with the proposed project and data from the Institute of Transportation Engineers (ITE). Estimated daily AM and PM peak hour trip generation for the proposed project are shown in Table 4.11-3. The proposed project is expected to generate approximately 584 average daily traffic (ADT) with a total of 46 trips during the AM peak hour and 62 trips during the PM peak hour.

Table 4.11-3 Proposed Project Trip Generation

| Land Use | Quantity | Units | AM Peak Hour | | | PM Peak Hour | | | Daily |
|------------------------|----------|---------------|--------------|-----|-------|--------------|-----|-------|-------|
| | | | In | Out | Total | In | Out | Total | |
| Single Family Detached | 61 | Dwelling Unit | 12 | 34 | 46 | 39 | 23 | 62 | 584 |

Source: Urban Crossroads 2010

Existing LOS with Ambient Growth and Proposed Project

To identify the potential traffic impacts that would be directly attributed to the proposed project, the City of San Dimas requires an analysis of the existing conditions LOS in addition to the projected ambient growth and the proposed project's anticipated traffic. Under this scenario, and based on the current intersection geometry and traffic controls (stop sign), the Cataract Avenue/Foothill Boulevard intersection would operate at an acceptable LOS C during both peak hours. Table 4.11-4 summarizes the projected LOS for the Cataract Avenue/Foothill Boulevard intersection under existing LOS conditions with ambient growth and implementation of the proposed project.

Year 2017 LOS without Proposed Project

In the year 2017 without implementation of the proposed project, and based on the current intersection geometry and traffic controls (stop sign), the Cataract Avenue/Foothill Boulevard intersection would operate at an acceptable LOS C during both peak hours. Table 4.11-5 summarizes the projected LOS for the intersection of Cataract Avenue/Foothill Boulevard in the year 2017 without implementation of the proposed project.

Table 4.11-4 Existing LOS with Ambient Growth and Proposed Project

| Intersection | Traffic Control | Intersection Approach Lanes ⁽¹⁾ | | | | Delay ⁽²⁾ (Seconds) | | LOS | | | | | | | | | |
|---------------------------------------|-------------------|--|---|---|----|--------------------------------|---|-----|--------------|--------------|--------------|--------------|---|------|------|---|---|
| | | NB | | | SB | EB | | WB | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour | | | | | |
| | | L | T | R | L | T | R | L | | | | | T | R | | | |
| Cataract Avenue at Foothill Boulevard | Cross Street Stop | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 17.3 | 22.2 | C | C |

⁽¹⁾ NB = northbound; SB = southbound; EB = eastbound; WB = westbound; L = left; T = through; R = right; 0, 1, 2 = Intersection Lanes. When a right turn is designated, the lane can be either striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

⁽²⁾ Delay and LOS were calculated using the following analysis software: Traffix, Version 8.0 (2008). Per the 2000 HCM, for intersections with cross street stop control, the delay and LOS for worst individual movement (or movements sharing a single lane) are shown.

Source: Urban Crossroads 2010

Table 4.11-5 Year 2017 LOS without Proposed Project

| Intersection | Traffic Control | Intersection Approach Lanes ⁽¹⁾ | | | | Delay ⁽²⁾ (Seconds) | | LOS | | | | | | | | | |
|---------------------------------------|-------------------|--|---|---|----|--------------------------------|---|-----|--------------|--------------|--------------|--------------|---|------|------|---|---|
| | | NB | | | SB | EB | | WB | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour | | | | | |
| | | L | T | R | L | T | R | L | | | | | T | R | | | |
| Cataract Avenue at Foothill Boulevard | Cross Street Stop | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 17.8 | 28.3 | C | D |

⁽¹⁾ NB = northbound; SB = southbound; EB = eastbound; WB = westbound; L = left; T = through; R = right; 0, 1, 2 = Intersection Lanes. When a right turn is designated, the lane can be either striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

⁽²⁾ Delay and LOS were calculated using the following analysis software: Traffix, Version 8.0 (2008). Per the 2000 HCM, for intersections with cross street stop control, the delay and LOS for worst individual movement (or movements sharing a single lane) are shown.

Source: Urban Crossroads 2010

Year 2017 LOS with Proposed Project

In the year 2017 with implementation of the proposed project, and based on the current intersection geometry and traffic controls (stop sign), the Cataract Avenue/Foothill Boulevard intersection would operate at an acceptable LOS C during peak hours. Table 4.11-6 summarizes the projected LOS for the intersection of Cataract Avenue/Foothill Boulevard in the year 2017 with implementation of the proposed project.

Table 4.11-6 Year 2017 LOS with Proposed Project

| Intersection | Traffic Control | Intersection Approach Lanes ⁽¹⁾ | | | | | | | | Delay ⁽²⁾ (Seconds) | | LOS | | | | | |
|---------------------------------------|-------------------|--|---|---|----|---|---|----|---|--------------------------------|---|--------------|--------------|--------------|--------------|---|---|
| | | NB | | | SB | | | EB | | WB | | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour | | |
| | | L | T | R | L | T | R | L | T | R | L | | | | | T | R |
| Cataract Avenue at Foothill Boulevard | Cross Street Stop | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 19.0 | 29.9 | C | D |

⁽¹⁾ NB = northbound; SB = southbound; EB = eastbound; WB = westbound; L = left; T= through; R=right; 0, 1, 2 = Intersection Lanes. When a right turn is designated, the lane can be either striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

⁽²⁾ Delay and LOS were calculated using the following analysis software: Traffix, Version 8.0 (2008). Per the 2000 HCM, for intersections with cross street stop control, the delay and LOS for worst individual movement (or movements sharing a single lane) are shown.

Source: Urban Crossroads 2010

Under existing conditions with ambient growth and implementation of the proposed project, the Cataract Avenue/Foothill Boulevard intersection would operate at LOS C under AM and PM peak hours, with a delay of 17.3 seconds during the AM peak hour and a delay of 22.2 seconds during the PM peak hour. In the year 2017, without implementation of the proposed project, the Cataract Avenue/Foothill Boulevard would operate at LOS C under the AM peak hour and LOS D under the PM peak hour, with a delay of 17.8 seconds during the AM peak hour and a delay of 28.3 seconds during the PM peak hour. In the year 2017, with implementation of the proposed project, the Cataract Avenue/Foothill Boulevard would operate at LOS C under the AM peak hour and LOS D under the PM peak hour, with a delay of 19.2 seconds during the AM peak hour and a delay of 29.9 seconds during the PM peak hour.

When compared to existing conditions (see Table 4.11-2), implementation of the proposed project would increase the delay at the Cataract Avenue/Foothill Boulevard intersection by 2.8 seconds during the AM peak hour and 3.3 seconds during the PM peak hour. This increase in delay compared to the existing condition would decrease the existing AM peak hour LOS from B to C. The PM peak hour LOS would experience no change.

When compared to 2017 conditions without the project, implementation of the proposed project would increase the delay at the Cataract Avenue/Foothill Boulevard intersection by 1.4 seconds during the AM peak hour and 1.6 seconds during the PM peak hour. When compared to 2017 conditions without the project, implementation of the proposed project would not result in a change in LOS.

Summary

Implementation of the proposed project would result in a generation of approximately 584 ADT per day with 46 vehicles during the AM peak hour and 62 vehicles during the PM peak hour. The increase in trip generation from implementation of the proposed project would not cause the Cataract Avenue/Foothill Boulevard to operate at an unacceptable LOS. Additionally, the increase in trip generation from implementation of the proposed project would not warrant signalization of the Cataract Avenue/Foothill Boulevard intersection and would not result in inadequate queuing during peak hours at this

intersection (pers. comm., Scott Sato, Urban Crossroads, August 17, 2010). Therefore, implementation of the proposed project would not result in a substantial increase in traffic and impacts are considered less than significant.

Mitigation Measures

The proposed project would not result in a significant impact related to substantial increases in traffic; therefore, no mitigation is required.

4.11.3.2 Issue 2 – Transportation Hazards

| Transportation and Traffic Issue 2 Summary | |
|---|--|
| Would implementation of the proposed project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | |
| Impact: Implementation of the proposed project may result in visibility hazards for on-site circulation facilities. | Mitigation: Review of Sight Distance (Tra-2A); Traffic Signing and Striping (Tra-2B). |
| Significance Before Mitigation: Significant. | Significance After Mitigation: Less than significant. |

Standards of Significance

Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis

The proposed project would include the construction of new private roadways to serve the proposed residential development. Primary access to the project site would be taken from a gated entryway to a private road beginning at the existing northern terminus of Cataract Avenue (see Figure 3-1, Proposed Project Site Plan). This gated entrance would be constructed with a median and a turnaround area prior to the gateway. Beyond the gateway, the main project roadway, Brasada Lane, would be a 26-foot-wide (curb-to-curb) paved private road. Brasada Lane would serve as the principal roadway for the project, and several spur roadways, also 26-feet wide, would lead from Brasada Lane into other portions of the project site. Several additional roadways, each 20 feet in width (curb-to-curb) would branch off the spur roadways and lead to residential lots not located within the principal lot cluster. A similar 20-foot-wide roadway would provide access to the proposed water tank. Emergency access routes are discussed below in Section 4.11.3.3, Issue 3 – Emergency Access.

The proposed project would be located in an undeveloped area that includes steep areas and may require narrow roads. Steep and narrow roadways may create a potential visibility hazard if roadway facilities, such as stop-signs, are not adequately designed to be free from visual obstructions such as landscaping or signage. The Traffic Impact Analysis prepared for the proposed project recommends on-site circulation improvements for the proposed project that would decrease transportation hazards

related to visibility. Without implementation of these measures, the proposed project would result in a potentially significant impact related to transportation hazards.

The proposed project would construct single-family residences on a site zoned for residential land uses and surrounded by residential land uses; therefore, the project would not result in a hazard due to incompatible uses.

Summary

On-site transportation facilities, such as stop-signs, would result in visibility hazards if they are not designed to be free from visual obstructions, such as landscaping or signage; therefore, the proposed project would result in a potentially significant impact to transportation hazards.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts related to transportation hazards to a level below significant.

- Tra-2A** Prior to approval of street improvement plans and/or grading permits, the sight distance at the internal project intersections shall be reviewed and approved by the City Engineer for compliance with acceptable sight distance standards (Section 405 of the California Department of Transportation Highway Design Manual) to ensure that all intersections are constructed to be consistent with these requirements.

- Tra-2B** Prior to issuance of a grading permit for proposed on-site roadways, project plans shall demonstrate to the satisfaction of the City Engineer that traffic signage and striping are consistent with the standards identified in the County of Los Angeles Traffic Ordinance No. 6544.

4.11.3.3 Issue 3 – Emergency Access

| Transportation and Traffic Issue 3 Summary | |
|--|--|
| Would implementation of the proposed project result in inadequate emergency access? | |
| Impact: Implementation of the proposed project would result in inadequate emergency access. | Mitigation: Improve one secondary emergency access route to LACoFD standards (Tra-3A). |
| Significance Before Mitigation: Significant. | Significance After Mitigation: Less than significant. However, if mitigation measure Tra-3A is found to be infeasible then the impact would be significant and unavoidable. |

Standards of Significance

Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would result in inadequate emergency access.

Impact Analysis

The proposed project would be implemented in a currently undeveloped area and would require the construction of new private roadways, as described above in Section 4.11.3.2, Issue 2 – Transportation Hazards. All proposed project roadways would be designed to accommodate emergency vehicles, including fire truck and ambulances, through features such as turnouts, turnarounds (both knuckled cul-de-sac and hammer-head), emergency access points, and fire hydrants.

The proposed project site and surrounding properties contain a number of unpaved fire roads that were developed many decades ago in the San Gabriel Foothills to assist in the deployment of firefighting resources during a wildland fire event. The Wildwood Motorway, Ferguson Motorway, and Sycamore Canyon Road each serve this purpose and are part of a larger interconnecting fire road network that serves the Northern Foothills area. These roadways pass through the project site and are an important component of firefighting preparedness in the Northern Foothills area. These roads continue to be used by fire protection service personnel.

Emergency access to and from the proposed project site would be primarily from Cataract Avenue. The City of San Dimas and the LACoFD consider the proposed project to have a single point of access which starts at the intersection of Foothill Boulevard and Cataract Avenue. The maximum number of residences that LACoFD considers to be acceptable from a single point of access is 75 residences. When considered with the other existing residences located along Cataract Avenue (north of Foothill Boulevard) and W. Dalepark Drive (east of Cataract Avenue), and other future development in the area, the addition of 61 residences associated with the proposed project would exceed the 75 residence limit from the Foothill Boulevard/Cataract Avenue intersection. Therefore, to meet LACoFD standards, as the City of San Dimas applies those standards, the proposed project must provide a secondary access route to serve the project site in the event of an emergency. The City of San Dimas confers with the LACoFD and considers their recommendations regarding these standards in evaluating the adequacy of emergency access. In addition, the City evaluates other criteria, including but not limited to biological habitat impacts, existing slopes adjacent to motorways, suitability of width and alignment, and potential number of users in determining the appropriate standards for emergency access improvements.

Four additional secondary emergency access points along the eastern and western boundaries of the project site are shown in Figure 4.10-1, Potential Emergency Access and Trails System. Two of the emergency access points are accessible from the western boundary of the project site crossing into the City of Glendora via adjacent property that is owned by the project applicant. The other two existing emergency routes would be accessible, if needed, from the eastern side of the project site utilizing existing motorways. One eastern emergency access point is located along the Wildwood Motorway and enters into the project site from the adjacent private property. The other eastern emergency access route point is located along a motorway that traverses the adjacent property owned by the County of Los Angeles into the southern area of the project site. A 0.18-acre turnaround located immediately east of the project site, on County of Los Angeles property, could also be constructed as part of the project if this becomes an emergency route. County approval would be required for the construction of this 0.18-acre emergency vehicle turnaround. At this time, no approvals for this turnaround have been obtained. Without formal approval from the County of Los Angeles, and without obtaining easements for use from the private property owners, a significant impact would occur.

The four proposed secondary emergency access routes are existing fire roads and motorways that currently traverse the project site and surrounding areas. While these motorways have a longstanding historic use and are currently used and maintained by LACoFD, they do not satisfy existing standards for improvements and, as existing, are not adequate to address increased demand for emergency access associated with the project. In addition, each is located on a private property and none, at this time, have authorizations from those property owners to ensure current or future use. Within the boundary of the proposed project site, the existing roads and motorways would be improved to meet LACoFD standards for emergency access. Each of the secondary emergency access routes would be gated at the entrance to the project site and would be equipped with a KNOX-BOX Rapid Entry System device to allow entry by emergency services personnel.

Outside the project site boundary, existing off-site roads and motorways that would provide secondary access to the project site are not currently proposed to be further improved and would remain in existing conditions, with the possible exception of the 0.18-acre emergency vehicle turnaround. Currently, these off-site roadways do not meet LACoFD standards, which require access roads to meet a 24-foot minimum roadway width and be all weather accessible. The existing condition of the off-site roadways presents a potential hazard associated with project site evacuation from an event such as a wildfire. If the proposed project were able to provide one additional emergency access route (other than the main entrance off Cataract Avenue) that meets City and LACoFD standards, the impact would be reduced to a less than significant level. However, because none of the proposed off-site emergency access routes are currently proposed to be improved to meet City and LACoFD standards, they are considered to be inadequate for the purpose of emergency access. This would result in a significant impact.

Summary

The proposed project would construct on-site roadways with adequate access for emergency vehicles. However, existing off-site roads and motorways that would provide secondary access to the project site would not undergo improvements and would remain in their existing condition. Currently, these off-site roadways do not meet City and LACoFD standards. While the proposed project provides a number of benefits to firefighting capability in the area, including the provision of emergency access points, additional water availability, and fuel modification measures, the lack of a secured access route on the project's eastern or western boundary and the existing sub-standard condition of off-site roadways to be used for access result in inadequate emergency access to the project site. This impact is significant.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts related to emergency access to a level below significant.

Tra-3A Prior to the approval of the tentative map, the project applicant shall provide evidence to the City Engineer of receipt of any necessary jurisdictional and property owner approvals and necessary map revisions for the improvement of at least one additional off-site emergency access route to City standards to provide secondary access the proposed project site in the event of a wildfire or other emergency situation. These standards generally require the provision of a 24-foot-wide all-weather access road, or the equivalent, as deemed appropriate and sufficient by the City Engineer.

Due to the separate jurisdictional approvals and the public and private property ownership authorizations required to implement improvements to the off-site existing roadways and motorways to be used for secondary emergency access to the proposed project site, it may be infeasible to implement mitigation measure **Tra-3A** which would reduce the project’s impact to less than significant. In this situation, off-site emergency access routes leading to the proposed project site would remain in their current existing conditions, which do not meet City and LACoFD standards, and project impacts related to emergency access would be significant and unavoidable.

4.11.3.4 Issue 4 – Alternative Transportation Plans, Policies, and Programs

| Transportation and Traffic Issue 4 Summary | |
|--|--|
| Would implementation of the proposed project conflict with adopted policies, plans, or programs establishing measures of effectiveness for the performance of the circulation system regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | |
| Impact: The proposed project would not conflict with alternative transportation plans or policies. | Mitigation: No mitigation is required. |
| Significance Before Mitigation: Less than significant. | Significance After Mitigation: Less than significant. |

Standards of Significance

Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact Analysis

The proposed project would support alternative transportation on site. The proposed project would provide multi-use trails to connect to adjacent land uses, including an equestrian trail and equestrian trail linkage between Horsethief Canyon Park and the Sycamore Canyon trail system, which proceeds into the Angeles National Forest. This internal system of multi-use trails would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

Further, an analysis examining the potential conflicts that the proposed project would have with existing policies and regulations associated with public transit, bicycle or pedestrian facilities, including the San Dimas General Plan, is discussed in Section 4.9 (Land Use). Table 4.9-1 in this section analyzes and identifies the objectives and policies from each element of the San Dimas General Plan which has the potential to relate to the proposed project, including consistency with the Circulation Element. It was determined that the proposed project does not conflict with the Circulation Element policies and objectives established in the General Plan.

Summary

The proposed project would include an internal system of alternative transportation trails and would not conflict with any adopted policies, plans, or programs supporting alternative transportation. Therefore, impacts related to alternative transportation would be less than significant.

Mitigation Measures

The proposed project would not result in a significant impact related to conflicts with alternative transportation policies; therefore, no mitigation is required.

4.11.4 Cumulative Impacts and Mitigation

| Transportation and Traffic Cumulative Issue Summary | | |
|--|--------------------------------|--------------------------------------|
| Would implementation of the proposed project have a cumulatively considerable contribution to cumulative transportation or traffic impacts considering past, present, and probable future projects? | | |
| Cumulative Impact | Cumulative Significance | Proposed Project Contribution |
| Traffic Increases: Cumulative development would not result in a decrease of LOS levels. | Less than significant. | Not cumulatively considerable. |
| Transportation Hazards: Cumulative development would not increase hazardous roadway conditions. | Less than significant. | Not cumulatively considerable. |
| Emergency Access: Cumulative development would not result in inadequate emergency access. | Less than significant. | Not cumulatively considerable. |
| Alternative Transportation, Plans and Policies: Cumulative development would not have a significant impact on alternative transportation. | Less than significant. | Not cumulatively considerable. |

4.11.4.1 Traffic Increases

Cumulative development projects included in the Traffic Impact Analysis (Appendix I) were narrowed from the list provided by the Planning Departments at the City of San Dimas and the City of Glendora, as shown in Table 4.0-2. Cumulative projects that were not anticipated to add traffic to the study area due to proximity or the nominal amount of trips generated by the project (e.g. cell towers), were excluded from the traffic analysis. For traffic volume increases, the cumulative impact study area was determined to include the following cumulative projects: NWC Bonita Avenue and San Dimas Canyon Road, 510 E. Arrow Highway, 671 E. Bonita Avenue, SEC Lone Hill and Gladstone Street, 627 W. Allen Avenue, 818 W. Gladstone Street, 155 N. Eucla Avenue, Grove Station, 245 E. Bonita Avenue, and Cataract Glendora. Although some cumulative projects would generate traffic on intersections other than the Cataract Avenue/Foothill Boulevard intersection, only cumulative project traffic anticipated to be generated at the Cataract Avenue/Foothill Boulevard intersection was considered in the traffic analysis.

Traffic increases related to cumulative projects were evaluated in the Traffic Impact Analysis (Appendix I of this EIR) for the proposed project under the 2017 Without Proposed Project scenario. As discussed above in Section 4.11.3.1, Issue 1 – Increases in Traffic, upon implementation of relevant cumulative projects, and assuming existing intersection geometry and traffic controls (stop sign), the Cataract Avenue/Foothill Boulevard intersection would operate at an acceptable LOS during peak hours in 2017. Therefore, cumulative projects would not impact transportation facilities relevant to the proposed project and the baseline cumulative traffic impact would be less than significant. Forecasted traffic volumes associated with the proposed project were also determined to result in a less than significant impact at this intersection in 2017. Therefore, the proposed project would not result in a significant cumulative traffic impact.

4.11.4.2 Transportation Hazards

For transportation hazards, the cumulative impact study area is defined as the cumulative projects identified in the Traffic Impact Analysis, including: NWC Bonita Avenue and San Dimas Canyon Road, 510 E. Arrow Highway, 671 E. Bonita Avenue, SEC Lone Hill and Gladstone Street, 627 W. Allen Avenue, 818 W. Gladstone Street, 155 N. Eucla Avenue, Grove Station, 245 E. Bonita Avenue, and Cataract Glendora. Cumulative projects would be required to comply with relevant City of San Dimas regulations pertaining to transportation design, such as Section 18.542.290 of the City of San Dimas Specific Plan No. 25, which establishes access and circulation requirements for roadways within the Northern Foothills area. Required compliance with these transportation design requirements would ensure that future development projects would not result in a significant cumulative impact related to transportation hazards. As discussed above in Section 4.11.1.2, Issue 2 – Transportation Hazards, the proposed project would have the potential to result in transportation hazards and would require an amendment to Section 18.542.290 of the City of San Dimas Specific Plan No. 25. With approval of the Specific Plan amendment and implementation of mitigation measures Tra-2A and Tra-2B, the proposed project's impact would be reduced to a less than significant level and its contribution would not be cumulatively considerable.

4.11.4.3 Emergency Access

For emergency access, the cumulative impact study area is defined as the cumulative projects identified in the Traffic Impact Analysis, including: NWC Bonita Avenue and San Dimas Canyon Road, 510 E. Arrow Highway, 671 E. Bonita Avenue, SEC Lone Hill and Gladstone Street, 627 W. Allen Avenue, 818 W. Gladstone Street, 155 N. Eucla Avenue, Grove Station, 245 E. Bonita Avenue, and Cataract Glendora. Construction and operational activities associated with future cumulative development in San Dimas could conflict with emergency access by including temporary construction barricades or other obstructions. It is anticipated that future development projects would undergo CEQA review of potential impacts on emergency access, and would be required to implement measures necessary to mitigate potential impacts. As a result, cumulative impacts related to inadequate emergency access would be less than significant. Thus, the baseline cumulative impact would be less than significant. With implementation of mitigation measure Tra-3A, the proposed project would not result in inadequate emergency access, and would not contribute to a regional cumulative impact.

4.11.4.4 Alternative Transportation Plans, Policies and Programs

For emergency access, the cumulative impact study area is defined as the cumulative projects identified in the Traffic Impact Analysis, including: NWC Bonita Avenue and San Dimas Canyon Road, 510 E. Arrow Highway, 671 E. Bonita Avenue, SEC Lone Hill and Gladstone Street, 627 W. Allen Avenue, 818 W. Gladstone Street, 155 N. Eucla Avenue, Grove Station, 245 E. Bonita Avenue, and Cataract Glendora. Cumulative projects in the city of San Dimas and adjoining areas would be required to be consistent with applicable policies, plans and programs pertaining to alternative transportation as conditions of project approval. As such, future development would not result in a significant cumulative impact to alternative transportation plans, policies or programs. As discussed above, implementation of the proposed project would encourage the use of alternative transportation and would not conflict with existing plans, policies or programs. Therefore, the proposed project would result in a less than significant impact related to alternative transportation and the proposed project's contribution would not be cumulatively considerable.

4.11.5 Issues With No Potential to Have a Significant Effect on the Environment

Would the proposed 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?

The proposed project would not be located within any airport area of influence. The closest airport is Brackett Field, located approximately three miles to the southeast of the project site. Due to the distance of the closest existing airport to the proposed project site, and the fact that no airport-related uses are proposed within the project site, implementation of the proposed project would not result in a change in air traffic patterns. No impact would occur.

4.11.6 References

California Department of Transportation. 2009. Highway Design Manual. Last Updated July 24, 2009. Available at <http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm>

City of San Dimas. San Dimas Municipal Code. Chapter 18.542, Specific Plan No. 25. Available at <http://www.qcode.us/codes/sandimas/>

City of San Dimas. 1991. *General Plan*. September 1991. Available at <http://www.cityofsandimas.com/ps.developmentservices.cfm?ID=2404>

Personal Communication, Scott Sato, P.E., Principal Traffic Engineer, Urban Crossroads, August 17, 2010.

Southern California Association of Governments (SCAG). 2008a. Regional Comprehensive Plan: Helping Communities Achieve a Sustainable Future. Available at <http://www.scag.ca.gov/rcp/index.htm>

Southern California Association of Governments (SCAG). 2008b. Regional Transportation Plan: Making the Connections. Available at <http://www.scag.ca.gov/rtp2008/index.htm>.

Transportation Research Board (TRB). 2000. Highway Capacity Manual.

Urban Crossroads. 2010. Brasada Residential Development Traffic Impact Analysis. July 29.



Source: Urban Crossroads 2010



No Scale



**TRAFFIC IMPACT ANALYSIS STUDY AREA
FIGURE 4.11-1**