
4.12 - Transportation and Circulation

4.12.1 - Introduction

This section describes the existing setting regarding transportation and potential effects from project implementation on the site and its surrounding area. A project-level Traffic Impact Analysis (TIA) was prepared for the UHSP project by Kunzman Associates. The TIA was originally issued on October 5, 2007 and updated on July 2, 2008. Descriptions and analysis in this section will be based on information contained in the updated TIA (KA 2008) and is included in this EIR as Appendix I.

As explained in Section 1, *Introduction*, where applicable, this project-level DEIR incorporates by reference information and analysis contained in the City of San Bernardino General Plan EIR and the Paradise Hills Specific Plan EIR, certified by the San Bernardino City Mayor and Common Council in 2005 and 1993, respectively. The General Plan EIR contemplated buildout of the General Plan at a programmatic level and concluded that all impacts on transportation were less than significant after mitigation. The Paradise Hills Specific Plan EIR provided project-level analysis of the Paradise Hills project and concluded that all transportation impacts were less than significant after mitigation. However, the Paradise Hills project proposed 504 units while the University Hills project proposes 980 units, so this TIA examines the specific project-level impacts of the University Hills project under current conditions.

This DEIR accounts for modifications to the baseline conditions that have occurred since certification of the previous EIRs and changes that have increased the size and intensity of the Proposed Project. Accordingly, not all of the conclusions in the previous EIRs are applicable to the Proposed Project, and new analysis is provided for potential impacts not previously considered in those documents.

4.12.2 - Environmental Setting

Roadway Network

The roadway network consists of a hierarchy of roadway classifications ranging from freeway to arterial to collector to local roadways. The main roadways in the project vicinity are shown in Exhibit 4.12-1.

Regional Access

Freeways serve regional and inter-city trips and are under the jurisdiction of the State of California Department of Transportation (Caltrans). Interstate 215 (I-215) is a north-south freeway bisecting the San Bernardino Valley, providing direct regional access to Riverside, Orange, and Los Angeles counties to the southwest and west (via the SR-91 Freeway) and Barstow and Las Vegas (via the I-15 Freeway) to the north. The I-215 interchanges with I-15 (5.5 miles north) as it enters the Cajon Pass. SR-210 has also recently been completed 3 miles north of the UHSP and now provides regional access to Highland and Redlands to the east and the west San Bernardino Valley and Los Angeles County to the west. The I-215 Freeway also interchanges with the I-10 Freeway in San Bernardino and the SR-60 Freeway in Riverside, both south of the project area.

These two freeways carry traffic west into Los Angeles County, and the I-10 Freeway also carries traffic east toward Redlands and the Coachella Valley.

Study Area Hierarchy and Roadways

Arterials handle high traffic volumes, provide intra-city circulation and convey local traffic to major activity centers, highways, and freeways for regional access. In the project vicinity, University Parkway, Northpark Boulevard, and Kendall Drive are classified as arterial roadways.

Collector streets are next in the hierarchy of street classifications. They carry less traffic than arterials and provide a higher level of access to local land uses. In the project vicinity, Campus Parkway is proposed to be extended from the west through the project site and connect to Little Mountain Drive to the east, creating a new loop road that ties into Northpark Boulevard both east and west of the CSUSB campus.

Local roadways follow collector streets in the hierarchy of street classifications. Local streets carry the least amount of traffic but provide the highest level of local access. In the project vicinity, I Street is a local street that serves the older existing residential neighborhoods east of Little Mountain Drive.

Existing Intersection Conditions

Level of Service Criteria

The City of San Bernardino uses the methodology for calculating intersection congestion from the Highway Capacity Manual (HCM) based on the seconds of delay experienced at each leg of a particular intersection. The HCM was last published in 2000 by the Transportation Research Board as Special Report 209. In the HCM method, the intersection with the greatest delay is the most limiting and determines the overall Level of Service (LOS) of that particular intersection. The HCM method differs from the volume-to-capacity (V/C) ratio method that relates the total traffic volumes for critical turning movements to the maximum capacity for those movements through an intersection. The V/C ratio method is also commonly used in traffic studies but can only be used for signalized intersections. Unsignalized intersections (stop-controlled) are evaluated by measuring delay in seconds as described in the HCM method. Table 4.12-1 describes LOS class (A through F) based on the volume-to-capacity ratio or seconds of delay with LOS A being the “best” (i.e., free flowing) and LOS F being the “worst” (i.e., totally congested). As previously stated, the traffic study for the UHSP project used seconds of delay (i.e., the HCM methodology) to calculate traffic conditions and impacts.

Study Intersections

Based upon discussions with City of San Bernardino staff, nine (9) intersections were identified that could be impacted by trips generated by the Proposed Project. These intersections are listed in Table 4.12-2, along with their existing traffic controls, seconds of delay, and Level of Service (LOS) values. The locations of these intersections are shown in Exhibit 4.12-1, and daily traffic volumes on area roadways are shown in Exhibit 4.12-2.

Table 4.12-1: Intersection Level of Service Definitions

Level of Service (LOS)	Description of Traffic Movement	Intersection Type	
		Volume-to-Capacity Ratio (V/C)	HCM Delay in seconds/vehicle)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	< 0.61	0–10
B	Stable traffic. Traffic flows smoothly with few delays.	0.61–0.70	> 10–15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	0.71–0.80	> 15–25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	0.81–0.90	> 25–35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	0.91–1.00	> 35–50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 1.00	> 50

Source: KA 2008.

Table 4.12-2: Study Area Intersection Conditions

Intersection*	Existing Traffic Control**	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Palm Avenue (NS) at: Kendall Drive (EW)	TS	32.0	C	28.2	C
Campus Parkway (NS) at: Kendall Drive (EW)	TS	16.0	B	14.3	B
Northpark Boulevard (NS) at: Campus Parkway (EW)	AWS	8.9	A	9.0	A
University Parkway (NS) at: Northpark Boulevard (EW)	TS	54.9	D	68.3	E
Kendall Drive (EW)	TS	36.7	D	48.5	D
I-215 Freeway NB Ramps (EW)	TS	31.3	C	22.2	C
I-215 Freeway SB Ramps (EW)	TS	17.8	B	19.0	B
Little Mountain Drive (NS) at: Northpark Boulevard (EW)***	TS	34.6	C	31.3	C
H Street (NS) at: Northpark Boulevard (EW)	TS	14.5	B	15.7	B
Source: Table 1, KA 2008.		Delay measured in seconds			
Source: Table 1, KA 2007.		Delay measured in seconds			
* EW = east-west roadway NS = north-south roadway					
** AWS = All-Way Stop Control (stop sign) CSS = Cross Street Stop TS = Traffic Signal					
*** LOS does not reflect traffic signal currently planned to be installed					

Existing Intersection Operations

Table 4.12-2 summarizes the existing traffic operations during the morning (AM) and afternoon (PM) peak hours for the study area intersections. The AM peak hour is between 7 a.m. and 9 a.m. and the PM peak hour is between 4 p.m. and 6 p.m. Seven intersections operate at LOS C or better during both peak hours, while two intersection operate below or worse than LOS D during one or both peak periods — Palm Avenue/Kendall Drive, and University Parkway/Northpark Boulevard.

Public Transportation

Bus Service

Bus service for the San Bernardino area is operated by Omnitrans. At present, Route 7 provides service along Northpark Boulevard and Kendall Avenue and connects the north end of the city with the central portion of town via Sierra Avenue. At the Cal State San Bernardino campus, riders can transfer to Routes 2, 5 and 11 that provide access to the rest of the City as well as communities to the south (e.g., Colton and, Loma Linda). With multiple transfers, riders can also reach communities along the SR-210 “foothill” corridor including Fontana, Rialto, etc. to the west as well as Highland and Redlands to the east (Omnitrans website 2007).

Omnitrans also connects to the Mountain Area Regional Transit Authority (MARTA), which provides bus service to the mountain communities of Crestline, Lake Arrowhead, Running Springs, and Big Bear (MARTA website 2007).

Metrolink

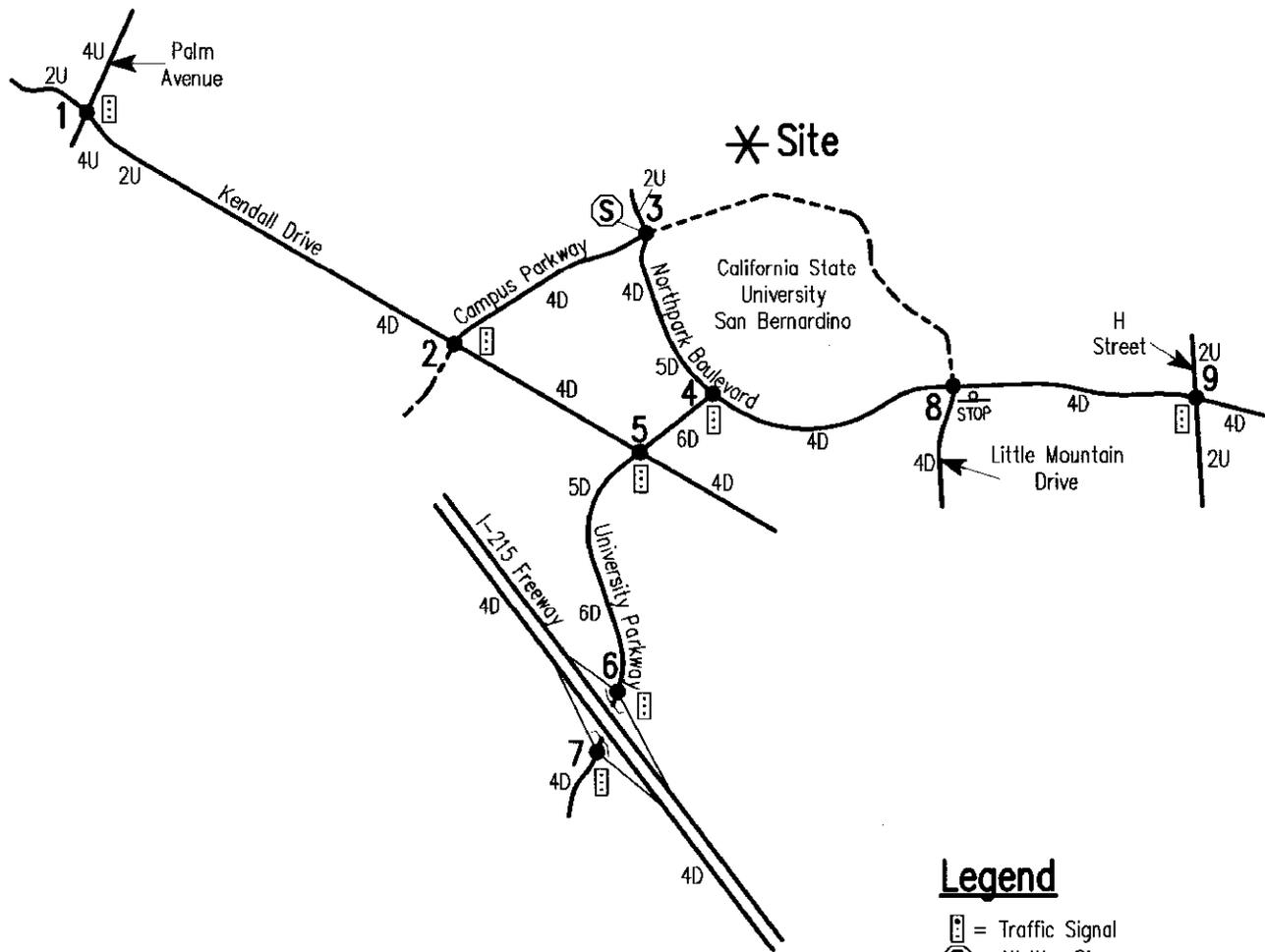
Metrolink currently provides regional commuter rail service to the San Bernardino area. The closest connection at this time is at the San Bernardino Station located at 300 N. “D” Street, approximately 5 miles south-southeast of the project site. However, a multi-modal transportation hub is being planned in the downtown area near 1st Street that will connect downtown with the CSUSB campus. The proposed site for the multi-modal hub is bordered by Rialto Avenue to the north, E Street to the east, F Street to the west, and the Arrowhead Credit Union Park to the south. The transit hub has the potential to serve local Omnitrans routes, the Bus Rapid Transit (BRT) system, intercity buses (Greyhound), Victor Valley Transit Authority (VVTA), SunLine Transit Agency, Riverside Transit Agency (RTA), MARTA, and Metrolink. The first corridor would be along E Street and will travel between CSUSB and the Loma Linda University Medical Center (Route 2). The CSUSB campus currently acts as a hub for several Omnitrans bus routes (see above) and Route 2 would eventually provide access to the new transportation center (Metrolink and Omnitrans websites 2007).

Bicycles

Bicycle access is generally categorized using the following classes of access facilities:

- Class I (bike path) provides exclusive right-of-way for bicyclists and pedestrians, with cross flows of motorists minimized.
- Class II (bike lane) provides a restricted lane within the paved section of the right-of-way designated for the exclusive or semi-exclusive use of bicycles, with through travel by motor vehicles or pedestrians prohibited but with vehicle parking and cross flows by pedestrians and motorists permitted.
- Class III (bike route) provides a right-of-way, designated by signs or permanent markings that is shared by pedestrians and motorists.

There are few bicycle-related improvements or trails in the project area at present other than on the CSUSB campus. The project site only contains dirt roads and paths at present.



Legend

- = Traffic Signal
- = All Way Stop
- = Stop Sign
- 4 = Through Travel Lanes
- D = Divided
- U = Undivided
- > = Right Turn Overlap
- >> = Free Right Turn

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Intersection reference numbers are in upper left corner of turning movement boxes.

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Source: Kunzman Associates.



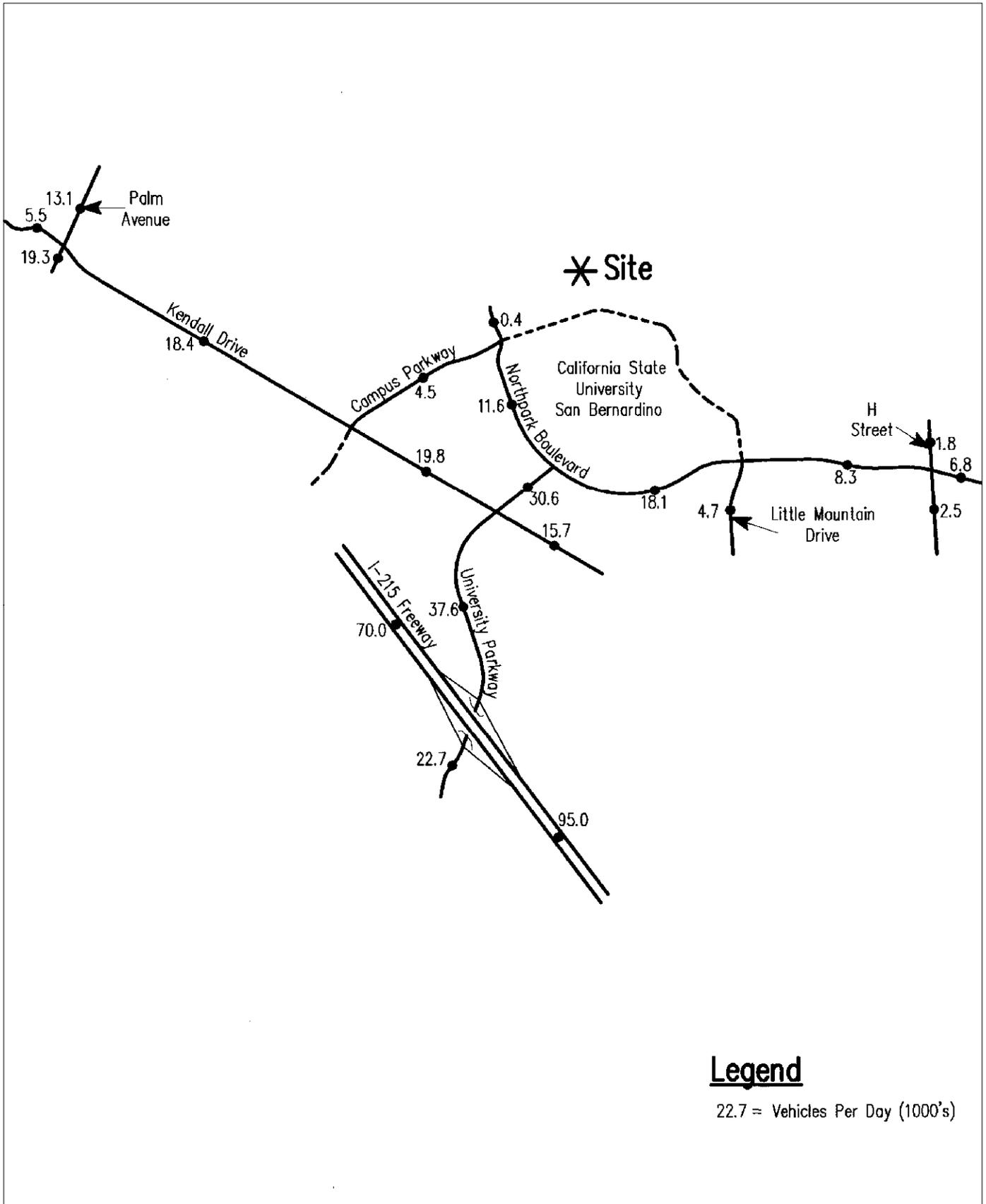
Not To Scale

Michael Brandman Associates

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Exhibit 4.12-1 Existing Transportation Network

UNIVERSITY HILLS SPECIFIC PLAN EIR



Source: Kunzman Associates.



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Michael Brandman Associates

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Exhibit 4.12-2 Existing Average Daily Traffic

UNIVERSITY HILLS SPECIFIC PLAN EIR

Pedestrians/Equestrians

The project area is vacant and undeveloped at present, and the only path or trail for non-vehicular access is the Foothill Regional Multi-Use Trail located both east and west of the site. Furthermore, the San Andreas Fault zone is utilized for the multipurpose, regional Chestnut Trail, which runs the length of the project. Several natural drainage ways and sloped areas are used as open space corridors and pathways. Little Mountain Drive and Campus Drive include pedestrian paths and bike lanes connecting to CSUSB and the region. Existing trails located in the project area will be preserved and incorporated into the UHSP, providing pathways that directly connect the site with CSUSB, regional trail systems, and the San Bernardino National Forest.

Transportation Demand Management

Transportation Demand Management (TDM) is a series of measures promoting alternatives to the single-occupant vehicle to reduce traffic congestion and improve air quality by maximizing the use of the existing transportation infrastructure. These measures include carpooling, vanpooling, transit, walking, bicycling, telecommuting, and compressed workweeks.

The City of San Bernardino currently encourages a number of TDM programs including ridesharing, vanpooling, priority parking for carpools, park and ride lots, etc. The primary goal of the City's TDM efforts is to reduce traffic congestion and improve air quality through the reduction of work-related car trips.

Regulatory Framework

State

Caltrans' established performance standard for all state highway facilities is the transition between LOS C and D. If a state highway facility operates below the transition between LOS C and D, the Caltrans' threshold is to maintain the lower level of service.

City of San Bernardino

The Circulation Element of the City's General Plan contains the following goals and policies on traffic and circulation that relate to the Proposed Project:

Goal 6.1: "Provide a well-maintained street system."

- **Policy 6.1.1:** Maintain and rehabilitate all components of the circulation system, including roadways, sidewalks, bicycle facilities and pedestrian facilities. (A-2)
- **Policy 6.1.2:** Develop list of priorities for maintenance and reconstruction projects. (A-2)
- **Policy 6.1.3:** Coordinate maintenance or enhancement of transportation facilities with related infrastructure improvements. (A-2)

Analysis: The UHSP project ties into the existing roadway network and provides or funds improvements as needed to prevent intersection congestion. It will also provide pedestrian trails,

bicycle facilities, etc. to promote non-vehicular access. Therefore, the project is generally consistent with this goal and its policies.

Goal 6.2: “Maintain efficient traffic operations on City streets.”

- **Policy 6.2.1:** Maintain a peak hour level of service D or better at street intersections.
- **Policy 6.2.2:** Design each roadway with sufficient capacity to accommodate anticipated traffic based on intensity of projected and planned land use in the City and the region while maintaining a peak hour level of service (LOS) “C” or better.
- **Policy 6.2.3:** Keep traffic in balance with roadway capacity by requiring traffic studies to identify local roadway and intersection improvements necessary to mitigate the traffic impacts of new developments and land use changes. (LU-1)
- **Policy 6.2.4:** Review the functioning of the street system as part of the Capital Improvement Program to identify problems and address them in a timely manner. (A-2)
- **Policy 6.2.5:** Design roadways, monitor traffic flow, and employ traffic control measures (e.g., signalization, access control, exclusive right and left turn-turn lanes, lane striping, and signage) to ensure City streets and roads continue to function safely within our LOS standards.
- **Policy 6.2.6:** Improve intersection operations by modifying signal timing at intersections and coordinating with other signals, as appropriate.
- **Policy 6.2.7:** Install new signals as warranted.

Analysis: The proposed UHSP project does achieve the LOS standards established in Policies 6.2.1 and 6.2.2. Therefore, the project is consistent with this goal and its policies regarding roadway and intersection improvements.

Goal 6.3: “Provide a safe circulation system.”

- **Policy 6.3.1:** Promote the principle that streets have multiple uses and users, and protect the safety of all users.
- **Policy 6.3.2:** Discourage high speeds and through traffic on local streets through traffic control devise such as signage, speed bumps, etc. as acceptable by local neighborhoods. (C-2 and C-3)
- **Policy 6.3.3:** Require that all City streets be constructed in accordance with the Circulation Plan (Figure C-2) and the standards established by the Development Services Director.
- **Policy 6.3.4:** Require appropriate right-of-way dedications of all new developments to facilitate construction of roadways shown on the Circulation Plan. (LU-1)
- **Policy 6.3.5:** Limit direct access from adjacent private properties to arterials to maintain an efficient and desirable quality of traffic flow. (LU-1)

- **Policy 6.3.6:** Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets and alleys. (LU-1)
- **Policy 6.3.7:** Require that adequate access be provided to all developments in the City, including secondary access to facilitate emergency access and egress (LU-1).

Analysis: An examination of the Specific Plan indicates the layout of units and their relationship to the project roadways will comply with this goal and its policies.

Goal 6.6: “Provide a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.”

- **Policy 6.6.1:** Support the efforts of regional, state, and federal agencies to provide additional local and express bus service in the City.
- **Policy 6.6.2:** Create a partnership with Omnitrans to identify public transportation infrastructure needs that improve mobility.
- **Policy 6.6.3:** In cooperation with Omnitrans, require new development to provide transit facilities, such as bus shelters and turnouts, as necessary and warranted by the scale of the development. (LU-1)
- **Policy 6.6.4:** Ensure accessibility to public transportation for seniors and persons with disabilities.
- **Policy 6.6.5:** In cooperation with Omnitrans, explore methods to improve the use, speed, and efficiency for transit services. These methods might include dedicated or priority lanes/signals, reduced parking standards for selected core areas, and incorporating Intelligent Transportation System architecture.
- **Policy 6.6.6:** Support and encourage the provision of a range of para-transit opportunities to complement bus and rail service for specialized transit needs.
- **Policy 6.6.7:** Encourage measures that will reduce the number of vehicle-miles traveled during peak periods, including the following examples of these types of measures:
 - Incentives for car-pooling and vanpooling.
 - Preferential parking for car-pools and vanpools.
 - An adequate, safe, and interconnected system of pedestrian and bicycle paths--Intelligent Transportation Systems or ITS, encompass a broad range of wireless and wireline communications based information, control and electronics technologies. When integrated into the transportation system infrastructure, and in vehicles themselves, these technologies help monitor and manage traffic flow, reduce congestion, provide alternate routes to travelers, enhance productivity, and save lives, time and money.
 - Conveniently located bus stops with shelters that are connected to pedestrian/bicycle paths (A-1).

- **Policy 6.6.8:** Promote the use of car-pools and vanpools by providing safe, convenient park-and-ride facilities.
- **Policy 6.6.9:** Work with Omnitrans to create transit corridors, such as the one currently being explored on E Street linking CSUSB to Hospitality Lane, to increase transit ridership, reduce traffic congestion, and improve air quality.
- **Policy 6.6.10:** Consider the provision of incentives, such as reduced parking standards and density/intensity bonuses, to those projects near transit stops that include transit-friendly uses such as childcare, convenience retail, and housing.

Analysis: The developer will work with Omnitrans to implement these measures relative to the UHSP project, as outlined in Mitigation Measures AIR-3c and AIR-3d.

Note: Goal 6.4 and its policies are related to uses adjacent to highways, Goal 6.5 and its policies are related to commercial uses, Goal 6.7 and its policies are related to rail service, and Goal 6.8 is related to aviation – these four goals and their policies are not directly applicable to the Proposed UHSP Project so they are not analyzed in this section.

San Bernardino Zoning Ordinance

Parking Requirements

The City of San Bernardino Development Code (Municipal Code Section 19) establishes off-street vehicular parking requirements by land use type. Section 4.12.3 will provide an analysis of the parking requirements of the City compared to those outlined in the Specific Plan.

NOP Comments

There were no comments received during the first or second NOP periods, or at the first scoping meeting regarding potential transportation impacts. At the second scoping meeting, Brett Clavio, a representative from Omnitrans, attended and provided information on the SBX transit program and connections to existing and planned transit (i.e., Metrolink, bus routes, etc.).

Traffic Study Methodology

Project-related traffic is analyzed in the TIA prepared by Kunzman Associates (KA 2008) as outlined in Appendix I. The data requirements, assumptions, and analytical methodology were discussed between KA and City traffic staff at the outset of the study.

The TIA examined the following three scenarios:

- **Existing Conditions:** This scenario reflects current conditions based on traffic counts taken in the summer of 2007.
- **Opening Year (2011):** This scenario adds project-generated trips from the UHSP conditions to existing traffic conditions to simulate opening-year traffic conditions, which is 2011 in this analysis.

- **Year 2030 Conditions:** This scenario represents approximate buildout of the project area and surrounding areas under the City’s recently adopted General Plan update (SBC 2005).

The TIA also considered impacts on freeway mainline and ramp segments on I-215 at University Parkway and at Palm Avenue. The TIA and freeway analysis were conducted using 2000 Highway Capacity Manual software. The first input to the model was project land uses which yield trip generation rates based on the latest Institute of Transportation Engineers (ITE) trip manual (ITE 2003). The TIA used 107 units at less than 12 units/acre density (ITE land use category 210) and 873 units at greater than 12 units/acre density (ITE land use category 230), based on the latest project land use plan (980 units total).

The TIA estimated the project would generate a total of 6,140 average daily trips (ADT) with 464 trips during the peak morning time (AM Peak) and 562 trip during the peak afternoon period (PM Peak)(Table 2, KA 2008). Once the total and peak hour trips were estimated, KA staff and City traffic staff reviewed and agreed on trip distribution assumptions for the project. The TIA estimated that over three quarters (80 percent) of project traffic would enter and exit the project to the west to Northpark Boulevard and Campus Parkway, while the other 20 percent would enter and exit the project to the east/southeast via Little Mountain Drive. It also estimated that about half (54 percent) of project traffic would utilize the I-215 Freeway ramps at University Parkway while an additional 7 percent would access the I-215 at Palm Avenue/Kendall Drive ramps northwest of the site. The remaining traffic would go east into San Bernardino (Figures 9 and 10, KA 2008). The TIA found similar trip distribution patterns both with and without planned interchange improvements at the I-215 Freeway ramps at University Parkway; however, subsequent analysis demonstrates there will be significant congestion at this location until the planned improvements are completed.

Once vehicular trips were generated and distributed, the TIA examined potential congestion at area intersections for both AM and PM peak periods for the expected opening year of the project (2011) as well as a future estimated buildout year (2030). The TIA used the East Valley Traffic Model for its regional distribution in coordination with transportation staff at the SCAG.

4.12.3 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G, Environmental Checklist, to determine whether impacts to transportation are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a.) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- b.) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

- c.) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Refer to Section 7, Effects Found Not To Be Significant.)
- d.) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e.) Result in inadequate emergency access?
- f.) Result in inadequate parking capacity?
- g.) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

At present, City General Plan Policies .6.2.1 and 6.2.2 require TIAs to demonstrate that intersection impacts can be mitigated to LOS D or better during peak hours, and roadway impacts can be mitigated to LOS C or better during peak hours (page 6-24, CSB 2005). These constitute additional local significance criteria relative to traffic impacts on the roadway network.

4.12.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Analysis of Intersection Operation Impacts

Impacts TRANS-1 and TRANS-2 analyze the Proposed Project's impacts on intersection operations as outlined in the project TIA (KA 2008). Both impacts rely on the Proposed Project's trip generation rates, trip distribution pattern, and planned improvements to the transportation network. It is reasonable to assume that some project residents will take advantage of public transit, bicycles, and pedestrian/equestrian paths in the future, which will reduce trip generation. However, the TIA assumed that public transit would not decrease project trip generation so the "worst- case" LOS impacts of project traffic could be examined.

The traffic counts available for the Little Mountain Drive/Northpark Boulevard intersection were counted in June 2008, when Cal State University San Bernardino was in summer school and not during the school year. As a result, the June 2008 traffic counts were compared to the September 2007 traffic counts for the intersection, when school was in session. and the 2008 counts were subsequently adjusted by a factor of 3.05 for the morning peak hour and 1.45 for the evening peak hour to represent traffic conditions when the University would be in session.

Project Roadway Improvements

The project TIA recommended a number of improvements to help reduce potential impacts of project traffic on surrounding roadways and intersections. These improvements are shown on Exhibit 4.12-3.

Planned and Proposed Transportation Improvements

Various local and regional agencies have identified transportation improvements in the project vicinity. These planned and proposed improvements would alter the roadway network, change pedestrian and bicycle routes, or alter public transit service. These transportation improvements are described below.

City of San Bernardino General Plan

The San Bernardino General Plan 2020 provides a long-term vision for the City. The General Plan focuses on achievable goals that can be implemented by 2030, including the Circulation Element.

Opening Year Intersection Operations

Impact TRANS-1: Trips associated with the Proposed Project would substantially degrade intersection performance under opening year (2011) conditions.

Impact Analysis

The trip generation for the Proposed Project was added to the surrounding roadway network according to the trip distribution patterns. These new trips were then added to the existing traffic volumes to arrive at the near-term with project traffic volumes. Tables 4.12-3 and 4.12-4 summarize intersection operations for the “without project” and “with project”, with and without improvements, scenarios, respectively, under near-term conditions.

Table 4.12-3: Opening Year (2011) Traffic Impacts without Improvements

Intersection	Without Project				With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Palm Avenue at: Kendall Drive	32.5	C	29.5	C	33.6	C	29.9	C
Campus Parkway at: Kendall Drive	16.1	B	14.9	B	16.2	B	16.4	B
Northpark Boulevard at: Campus Parkway	9.0	A	8.9	A	13.0	B	12.9	B
University Parkway at: Northpark Boulevard	61.5	E	79.4	E	74.7	E	99.9	F
Kendall Drive	39.4	D	48.5	D	39.8	D	50.5	D
I-215 Fwy NB Ramps	38.7	D	26.0	C	99.9	F	35.5	D
I-215 Fwy SB Ramps	20.3	C	23.7	C	26.4	C	29.3	C
Little Mountain Drive at: Northpark Boulevard	34.6	C	31.6	C	35.4	D	31.8	C
H Street at: Northpark Boulevard	14.6	B	15.8	B	14.7	B	15.9	B
Source: Tables 3 and 4, KA 2008								

Table 4.12-6: Table 4.12-4: Opening Year (2011) Traffic Impacts with Improvements

Intersection	AM Peak Hour		PM Peak Hour		Impacts	
	Delay	LOS	Delay	LOS	TIA	GP
Palm Avenue at: Kendall Drive	33.6	C	29.9	C	No	No
Campus Parkway at: Kendall Drive	16.2	B	16.4	B	No	No
Northpark Boulevard at: Campus Parkway	9.4	A	9.9	A	No	No
University Parkway at: Northpark Boulevard	31.6	C	48.1	D	Yes	Yes
Kendall Drive	39.8	D	50.5	D	Yes	Yes
I-215 Fwy NB Ramps	49.4	D	35.4	D	Yes	Yes
I-215 Fwy SB Ramps	26.4	C	29.3	C	No	No
Little Mountain Drive at: Project Access	10.1	B	8.7	A	No	No
Northpark Boulevard	35.4	D	31.8	C		
H Street at: Northpark Boulevard	14.7	B	15.9	B	No	No
* City’s Traffic Impact Analysis (TIA) standard is LOS D or better, General Plan (GP) standard is LOS C or better Source: Tables 5, KA 2008.						

Three intersections are expected to operate at an unacceptable level of service (i.e., peak hour LOS D or lower) in the opening year, without the project—University Parkway at Northpark Boulevard, Kendall Drive, and the I-215 Freeway Northbound Ramps. However, even without project-related traffic, operations at these intersections are expected to degrade to unacceptable levels without planned improvements in the opening year. In addition, four intersections are expected to operate at unacceptable level of service (i.e., peak hour LOS D or lower) in the opening year, with the project—University Parkway at Northpark Boulevard, Kendall Drive, I-215 Freeway Northbound Ramps and Little Mountain Drive at Northpark Boulevard.

Construction plans for the proposed 1-215 Freeway/Campus Parkway half interchange were obtained from the City of San Bernardino in the Preliminary Value Analysis Study Report for the I-215/ University Parkway Interchange prepared by Value Management Strategies, Inc. in April 2008. The Opening Year (2011) traffic projections have not taken into account the proposed 1-215 Freeway/Campus Parkway half interchange. However the year 2030 traffic projections have taken into account the proposed 1-215 Freeway/Campus Parkway half interchange, as can be seen in Table 4.12-5.

It should be noted that a traffic signal will be installed prior to UHSP completion, at the Northpark Boulevard intersection at Little Mountain Drive, which will reduce the LOS impacts at this intersection to acceptable levels once the signal is in operation.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

The project TIA identified the following measures to help assure the UHSP project would mitigate its proportion of traffic impacts. This measure is based on the City's Capital Improvement Program and the development impact fee collected by the City to help fund identified road and intersection improvements. These programs represent a regional mitigation program, so fair share contributions from new development represent an appropriate contribution to that program:

MM TRANS-1 Prior to the issuance of the first building permit, the developer shall install or provide fair share payments to the City to install improvements referred to in Table 5 in the TIA (KA 2008).). If fair share payments are not paid prior to issuance of the first building permits, the UHSP will be required to install improvements, and be reimbursed by the City upon completion. . Improvements include:

- Traffic signal at Northpark Boulevard and Campus Parkway;
- Cross Street Stop at Little Mountain Drive and Project Access;
- Add two (2) left- turn lanes on northbound leg of University Parkway at Northpark Boulevard;
- Add two (2) left- turn lane on northbound I-215 Freeway ramp;
- Add a left-turn lane on the northbound leg of Little Mountain Drive at Project Access;
- Add a right-turn lane on the northbound leg of Little Mountain Drive at Project Access;
- Add a left-turn lane on the southbound leg of Northpark Boulevard at Campus Parkway;
- Add a through lane to the eastbound leg of Little Mountain Drive at Project Access;
- Add a right-turn-overlap to the eastbound leg of University Parkway at Northpark Boulevard;
- Add a right-turn lane to the eastbound leg of Little Mountain Drive at Project Access;
- Add a left-turn lane to the westbound leg of Northpark boulevard at Campuss Parkway;
- Add three (3) left-turn lanes to the westbound leg of University Parkway at Northpark Boulevard;
- Add a left turn lane to the westbound leg of Little Mounntain Drive at Project Access;
- Add a through lane to the westbound leg of Northpark Boulevard and Campus Parkway; and
- Add a through lane to the westbound leg of Little Mountain Drive atProject Access;

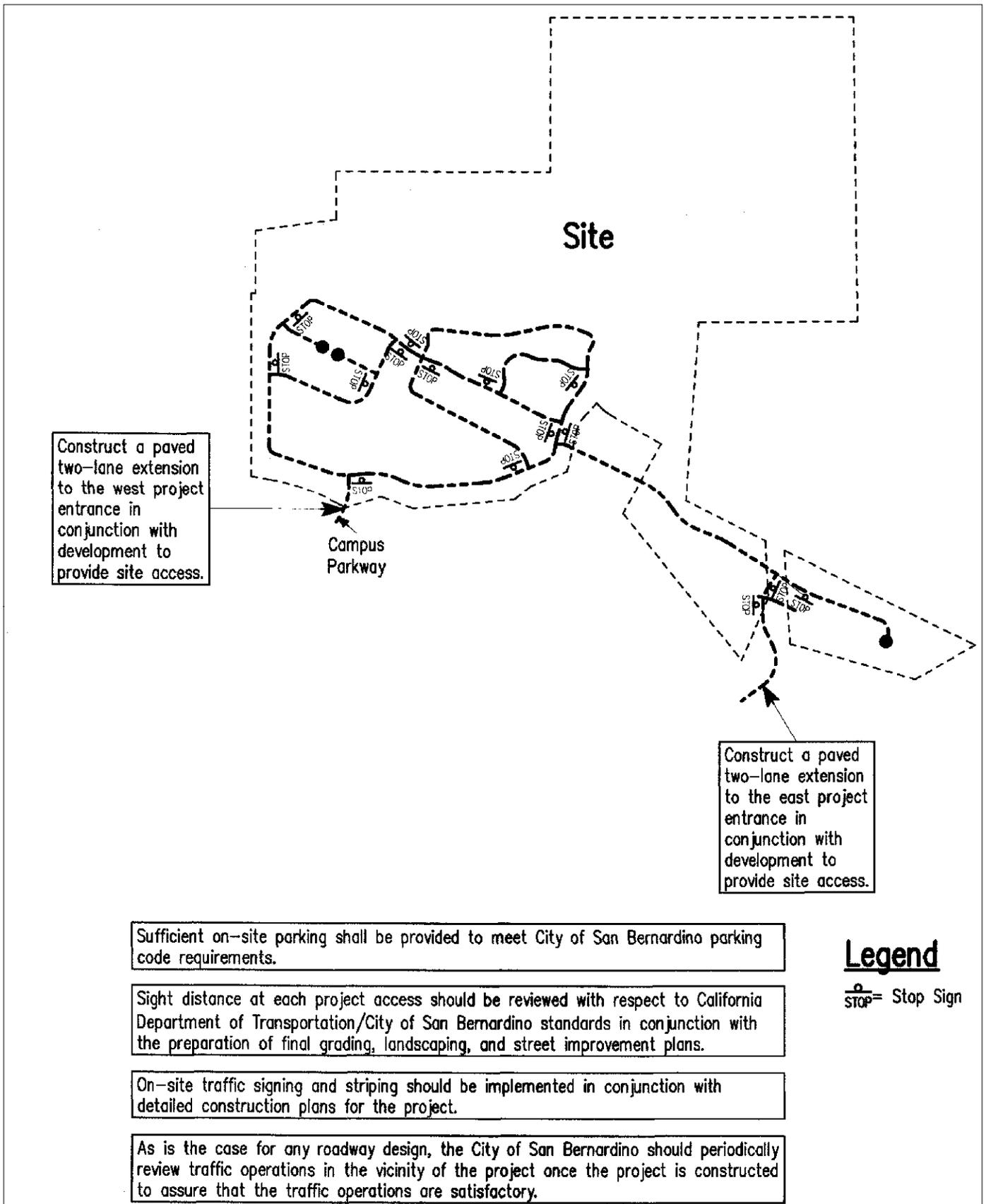
- Add a right-turn lane to the westbound leg of University Parkway at Northpark Boulevard.

To implement this measure, a right- turn lane can be striped or unstriped, but to function as a right- turn lane, there must be sufficient width for right- turn vehicles to travel outside the through lanes.

The TIA for this project estimated that the fair share cost for these improvements would be just over \$4.1 million as of when the TIA was prepared (July 2, 2008). Exhibit 4.12-3 illustrates the proposed improvements that the project will need to implement. With construction of these improvements, LOS at local intersections will meet the City’s General Plan thresholds.

Level of Significance After Mitigation

Less than significant impact.



Source: Kunzman Associates.



Not To Scale

Exhibit 4.12-3 Proposed Circulation Improvements

Year 2030 Intersection Operations

Impact TRANS-2: Trips associated with the Proposed Project would substantially degrade intersection performance under Year 2030 conditions.

Impact Analysis

The trip generation for the Proposed Project was added to the surrounding roadway network according to the trip distribution patterns. These new trips were then added to the Year 2030 background traffic volumes to arrive at Year 2030 with project traffic volumes. Table 4.12-5 summarizes intersection operations for the without and with project scenarios under Year 2030 conditions.

Table 4.12-5: Year 2030 Traffic Impacts without Mitigation

Intersection	Without Project				With Project				Peak Period Exceeds LOS Standards?*	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		TIA	GP
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
Palm Avenue at: Kendall Drive	31.4	C	36.6	C	32.1	C	34.2	C	No	No
Campus Parkway at: Kendall Drive	15.4	B	16.8	B	15.8	B	18.2	B	No	No
I-215 Fwy NB Ramps	9.7	A	10.8	B	10.0	A	11.8	A		
I-215 Fwy SB Ramps	7.8	A	7.8	A	8.0	A	7.9	A		
Northpark Boulevard at: Campus Parkway	9.5	A	10.1	B	18.4	C	15.3	C	No	No
University Parkway at: Northpark Boulevard	58.9	E	63.0	E	65.9	E	99.0	F	Yes	Yes
Kendall Drive	39.0	D	68.1	E	39.3	D	99.9	E	Yes	Yes
I-215 Fwy NB Ramps	29.8	C	19.7	B	32.3	C	72.8	C	No	No
I-215 Fwy SB Ramps	20.0	C	99.9	F	3.8	C	21.6	F	Yes	Yes
I-215 Fwy SB Ramps							99.9			
Little Mountain Drive at: Northpark Boulevard	32.2	C	27.8	C	81.4	C	29.0	C	No	No
H Street at: Northpark Boulevard	14.6	B	15.5	B	15.1	B	15.6	B	No	No

* City's Traffic Impact Analysis (TIA) standard is LOS D or better, General Plan (GP) standard is LOS C or better
 Source: Tables 6 and 7, KA 2008

Table 4.12-6: Year 2030 Traffic Impacts With Mitigation and Future Freeway Improvements

Intersection	AM Peak Hour		PM Peak Hour		Impacts	
	Delay	LOS	Delay	LOS	TIA	GP
Palm Avenue at: Kendall Drive	31.1	C	34.2	C	No	No
Campus Parkway at: Kendall Drive	15.8	B	18.2	B	No	No
I-215 Fwy NB Ramps	10.0	A	11.8	B		
I-215 Fwy SB Ramps	8.0	A	7.9	A		
Northpark Boulevard at: Campus Parkway	6.5	A	8.5	A	No	No
University Parkway at: Northpark Boulevard	31.2	C	37.7	D	Yes	Yes
Kendall Drive	35.8	D	54.9	D	Yes	Yes
I-215 Fwy NB Ramps	32.3	C	21.6	C	No	No
I-215 Fwy SB Ramps	19.7	B	30.3	C	No	No
Little Mountain Drive at: Project Access	10.3	B	8.7	A	No	No
Northpark Boulevard	33.9	C	29.0	C		
H Street at: Northpark Boulevard	14.8	B	15.6	B	No	No
* City's Traffic Impact Analysis (TIA) standard is LOS D or better, General Plan (GP) standard is LOS C or better Source: Tables 8, KA 2008						

Under the City’s General Plan thresholds, five intersections are expected to operate at unacceptable levels of service by 2030—: Palm Avenue at Kendall Drive, Northpark Boulevard at Campus Parkway, University Parkway at Northpark Boulevard, University Parkway at Kendall Drive, and Little Mountain Drive at Northpark Boulevard. Even without project-related traffic, operations at these intersections are expected to degrade to unacceptable levels (i.e., peak hour LOS D or lower) without planned improvements by 2030.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-2 Prior to the issuance of the 600th building permit, the developer shall install or provide fair share payments to the City for installation of improvements referred to in Table 8 in the TIA (KA 2008).). If fair share payments are not paid prior to the issuance of the 600th building permit, the UHSP will be required to install improvements, and be reimbursed by the City upon completion. Improvements include:

- Cross street stop at Campus Parkway at I-215 Freeway northbound ramp;
- Cross street stop at Campus Parkway at I-215 Freeway southbound ramp;
- Add a thorough lane on northbound leg of campus Parkway and Kendall Drive;

- Add a thorough lane on the northbound leg of campus Parkway and at I-215 Freeway northbound ramp;
- Add a thorough lane on northbound leg of campus Parkway and at I-215 Freeway southbound ramp;
- Add a right-turn lane on northbound leg of University Parkway at Kendall Drive;
- Add a right-turn lane on the northbound leg of University Parkway at I-215 Freeway southbound ramp;
- Add a left-turn lane on the southbound leg of Campus Parkway at I-215 Freeway southbound ramp;
- Add a thorough lane on the southbound leg of Campus Parkway at Kendall Drive;
- Add a thorough lane on the southbound leg of Campus Parkway at I-215 Freeway northbound ramp;
- Add a thorough lane on the southbound leg of Campus Parkway at I-215 Freeway southbound ramp;
- Add a right-turn lane on the southbound leg of University Parkway at I-215 Freeway northbound ramp;
- Add a right-turn lane on the eastbound leg of University Parkway at I-215 Freeway northbound ramp;
- Add a left-turn lane on the eastbound leg of Campus Parkway at Kendall Drive;
- Add a left-turn lane on the eastbound leg of Campus Parkway at I-215 Freeway northbound ramp;
- Add a right-turn lane on the westbound leg of Campus Parkway at I-215 Freeway northbound ramp.

To implement this measure, a right- turn lane can be striped or unstriped, but to function as a right-turn lane, there must be sufficient width for right-turn vehicles to travel outside the through lanes.

As shown in Table 4.12-6, all intersections would meet the City’s General Plan thresholds with improvements by 2030 after the implementation of the improvements outlined in Measure MM--TRANS-2.

Level of Significance After Mitigation

Less than significant impact.

Freeway Operations

Impact TRANS-3: The Proposed Project would contribute to deficient freeway operations.

Impact Analysis

This impact focuses on long-term (Year 2030) conditions to identify long-range improvements needed to maintain adequate levels of service on the I-215 Freeway. Table 4.12-7 calculates the anticipated LOS values for the I-215 Freeway in the vicinity of the Proposed Project for the Year 2030. The table shows that several freeway segments will reach unacceptable levels (LOS E or F) during either the peak AM or peak PM hour depending on the direction of traffic flow. While the Proposed Project would not **cause** any mainline segment to deteriorate from an acceptable LOS to an unacceptable LOS, it would add trips to mainline segments that are currently, or are anticipated to operate at unacceptable levels for the Year 2030 scenario. Any further deterioration of unacceptable LOS on mainline segments is considered a significant impact. Mitigating mainline impacts would require major capital improvements to I-215, which would require widening the freeway corridor for several miles beyond the limits of the study area.

Table 4.12-6: Year 2030 Freeway Operations Analysis with Improvements

Freeway/Segment Limits	Without Project				Significant Impact?	
	AM Peak Hour		PM Peak Hour		AM	PM
	V/C	LOS	V/C	LOS		
<u>I-215 Northbound</u>						
Baseline Road to 16 th Street	0.49	B	0.89	D	No	No
16 th Street to Massachusetts Avenue	0.46	B	0.98	E	No	Yes
Massachusetts Avenue to Highland Avenue	0.45	B	0.98	E	No	Yes
Highland Avenue to Mount Vernon Avenue	0.42	B	0.86	D	No	No
Mount Vernon Avenue to SR-30 Freeway	0.43	B	0.88	D	No	No
SR-30 Freeway to University Parkway	0.51	B	0.99	E	No	Yes
University Parkway to Campus Parkway	0.45	B	0.88	D	No	No
I-215 Southbound						
Campus Parkway to University Parkway	0.76	C	0.56	C	No	No
University Parkway to SR-30 Freeway	0.97	E	0.66	C	Yes	No
SR-30 Freeway to Mount Vernon Avenue	0.92	D	0.61	C	NoNo	No
Mount Vernon Avenue to Highland Avenue	0.93	D	0.61	C	No	No
Highland Avenue to Massachusetts Avenue	0.89	E	0.65	C	Yes	No
Massachusetts Avenue to 16 th Street	0.96	E	0.65	C	Yes	No
16 th Street to Baseline Road	0.97	E	0.70	C	Yes	No

Source: Tables 11 and 12, KA 2008

At the time of this writing, no local or regional transportation improvement plans identify widening the I-215 mainline beyond the existing eight lanes through the San Bernardino corridor and, therefore, no local, regional, state, or federal funding exists for this improvement. The TIA for this project estimated that freeway improvement costs could be over \$58 million (Table 14, KA 2008). Moreover, widening I-215 may require the acquisition of additional rights-of-way that could necessitate relocation of public roadways and sound walls, reconstruction of interchanges, and condemnation of private properties, among other changes. Until a nexus between the improvements to I-215 and funding is identified, widening the freeway to increase capacity is considered impracticable. Therefore, such an improvement would not be available, as mitigation and freeway impacts would be significant unavoidable impacts of the Proposed Project.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

No feasible mitigation is available at the local project level.

Level of Significance After Mitigation

Significant impact.

Parking Capacity

Impact TRANS-4: The Proposed Project would provide adequate parking in accordance with the requirements of the City Development Code.

Impact Analysis

Table 4.12-8 outlines parking requirements of the City’s Development Code (Municipal Code Section 19.54). Parking demand is calculated separately for single-family detached housing compared to multi-family housing. Section 3 of the UHSP, Development Standards, Parking and Loading Standards, specifies that two enclosed garage spaces will be provided per each detached residential unit. For attached units, the following shall apply:

- Studio unit: 1.5 covered spaces per unit;
- One-bedroom unit: 1.5 covered spaces per unit;
- Two-bedroom unit: 2 covered spaces per unit;
- Three or more bedrooms: 2 covered spaces per unit; and
- Guest parking: 1 guest parking space for every 5 units.

Table 4.12-7: City Parking Requirements

Residential Uses	Development Code Parking (CMC Section 19.24.040)
Mobile home parks	2 covered spaces within an enclosed garage, which may be tandem, and 1 uncovered quest space for each unit.
Multi-family Residential: Studio and 1 bedroom	1 covered and 1 uncovered guest space for every 5 units.
Two bedrooms	2 covered and 1 uncovered guest space for every 5 units.
Three or more bedrooms	2.5 covered and 1 uncovered guest space for 5 units.
Planned residential developments, including single-family dwellings and condominiums	2 covered spaces within an enclosed garage and 1 uncovered off-street guest parking space for every 5 units.
Residential day care	2 spaces in addition to those required for primary residence.
Senior citizen apartments	1 covered space for each unit, plus 1 uncovered space for each space for 5 units for guest parking.
Senior congregate care	.75 covered space for each unit.
Single-family dwellings	2 covered spaces within an enclosed garage.

These parking requirements are very similar except the City Development Code specifies 2.5 enclosed parking spaces for attached units with three or more bedrooms, while the Specific Plan requires two enclosed spaces. This lower parking requirement is consistent with a goal of the project to reduce use and dependence on personal vehicles and individual driving trips offsite. With adoption of the Specific Plan, these differences will not represent a significant traffic-related impact since there are no other neighborhoods or public uses in the immediate vicinity that would be impacted if project units and neighborhoods had an inadequate amount of parking.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Level of Significance After Mitigation

Less than significant impact.

Hazards

Impact TRANS-5: The Proposed Project may result in traffic hazards from the street layout or project design.

Impact Analysis

The Proposed Project allows for on-street parking on internal circulation streets. However, widths for on-street parking are less than City recommended cross sections, which allow for access by emergency vehicles. As long as parking restrictions are enforced on internal streets, and the street plan is implemented as proposed, no significant impacts are expected relative to traffic hazards. Furthermore, the proposed project is within the Foothill Fire Zone of the City of San Bernardino. As required by the City’s Foothill Fire Zone, the proposed project created a slope analysis which depicts the three fire zones and the limits of development proposed in UHSP. Areas within the Foothill Fire Zones are required to be developed in a manner that uses proper emergency access and maintains adequate evacuation routes in the event of a fire. Therefore, impacts from hazards to the proposed UHSP are considered to be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Level of Significance After Mitigation

Less than significant impact.

Emergency Access

Impact TRANS-6: The Proposed Project may result in inadequate emergency access.

Impact Analysis

The Proposed Project will create a loop street connection through the project area by extending Campus Parkway east across Northpark Boulevard and tying into Little Mountain Drive on the southwest back to Northpark Boulevard (see Exhibit 4.12-1). A review of the street sections within the project indicate internal streets range from 36 feet curb-to-curb (Streets E-J) to 40 feet (Streets C-J and parts of B) and 44 feet on Street A. The collector streets range from 44 feet on Street A and Little Mountain Little Mountain Drive up to 68 feet (with a 12-foot median) on the extension of Campus Parkway. The required width for emergency fire vehicles in San Bernardino is 35 feet curb to curb, with an unobstructed width of not less than 25 feet. The proposed widths of the UHSP will allow for

adequate emergency vehicles as long as City parking requirements and restrictions are met (e.g., no double-parking).). For these reasons, the Proposed Project will not result in inadequate access for police, fire, or other emergency vehicles. For additional information on police and fire services, see Section 4.11, Public Services.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Public Transit, Bicycles, and Pedestrians

Impact TRANS-7: The Proposed Project would provide public transit, bicycle, and pedestrian opportunities and would not conflict with adopted policies, plans, or programs supporting alternative transportation.

Impact Analysis

The Proposed Project is a 980- unit residential project and contains a number of design features that would create new opportunities for use of public transit, bicycle, and pedestrian modes of transportation.

Public Transit

A bus transit line stops within three fourths of a mile from the project clubhouse (i.e., at the “front” of the CSUSB campus). The proposed UHSP project includes a clubhouse and several parks that will be a focus of resident activities. It is expected that, at some point in time, bus service will be extended along Northpark Boulevard and Campus Parkway through the project when OmnitransOmniTrans believes it will have sufficient ridership for economical service. Until that time, potential transit impacts would be significant. However, CSUSB has indicated they will have a shuttle service available along the main project access road that project residents may use for a fee to access the CSUSB campus. This would allow project residents to easily reach the south end or main entrance of CSUSB. At the second scoping meeting, Brett Clavio, a representative with Omnitrans,OmniTrans indicated they are planning a major cross-town express transit service called “SBX” that which will have a stop in front of the CSUSB campus. Omnitrans OmniTrans is planning on starting this service by approximately 2011. Therefore, UHSP residents will eventually have relatively direct access to public transit, so long-term impacts to public transit will be less than significant.

Bicycles/Equestrian Trails

Because of its proximity to the CSUSB campus and shopping centers, project residents, employees, and guests would be expected to regularly use bicycles. To facilitate bicycle use, Class II bicycle lanes will be extended on Campus Parkway (Exhibits 4.12-4 and 4.12-5). A pedestrian/bicycle

linkage will connect to the CSUSBCal State campus as well. These extensions will help close gaps in the City's bicycle circulation network in this area, and would enhance the viability of bicycle usage. Once these connections are complete, potential impacts related to bicycles will be less than significant.

Pedestrians

The Proposed Project is designed to be a pedestrian-oriented environment. Sidewalks would be provided along all street frontages and crosswalks on internal roads and major intersections will receive a pavement treatment intended to enhance the definition of the pedestrian space.

Residential dwelling units will be within walking distance (0.5 mile) to the parks and the clubhouse within the project. Given the proximity of these uses, it would be expected that many residents would find it more convenient to walk or bike to the center instead of using a car. Therefore, pedestrian impacts would be less than significant once the network of paths and sidewalks has been completed.

Level of Significance Before Mitigation

Less than significant impact with implementation of the Specific Plan and MM AIR-3c and -3d.

Mitigation Measures

No additional mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Construction Impacts

Impact TRANS-8: The Proposed Project may create substantial short-term traffic, parking, and vehicular access impacts associated with construction activities.

Impact Analysis

Construction truck traffic would consist of trucks and heavy equipment, most of which will remain on the project site during grading and construction operations. Activities include construction of new infrastructure, movement of excavated material onsite (i.e., earthwork is expected to be balanced onsite), and on-haul of new construction materials. Most truck trips would be expected to use I-215 and would leave and enter the freeway at Kendall Drive or University Parkway. Trucks would use Northpark Boulevard and Campus Parkway for access to Kendall Drive and then to the freeway. Most trucks and off-site trips will be along Kendall Drive since University Parkway at the I-215 is congested much of the day at present.

Daily construction truck traffic will vary by type of activity, but the maximum number of daily truck trips is estimated to be 180 round trips. Note that this estimate is consistent with the number of truck trips used in the construction air quality analysis in Section 4.2, Air Quality. Construction truck traffic has the potential to create congestion and delays, as well as hazards from trucks entering

roadways and flying debris from uncovered loads, therefore, this may cause a potential short-term impact to local traffic and will require mitigation.

Construction staging and vehicle parking would be provided onsite. Staging operations have the potential to obstruct roadways and parking lots. Some phases of the project would be labor intensive and may result in several hundred workers on the project site on certain days. Spill-over construction parking is not likely to adversely impact off-street parking in the neighborhoods along North I Street since they are separated from the project site by large debris/flood control basins (i.e., workers will not park in these neighborhoods since they cannot readily access the site from here).

Mitigation is proposed that would require the applicant to submit a Construction Traffic, Staging, and Management Plan to the City of San Bernardino for review and approval. The implementation of the plan would reduce potential impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-8 Prior to the commencement of construction, the developer shall provide a Construction Traffic, Staging, and Parking Management Plan to the City of San Bernardino for review and approval. All construction contracts shall include a clause requiring compliance with the Construction Traffic, Staging, and Parking Management Plan and the developer shall be able to enforce the provisions of the plan through penalties, up to and including, termination of the contract. The plan shall include the following provisions:

- Construction truck traffic shall be limited to the following designated routes: Campus Parkway from the site and west of Northpark Boulevard to Kendall Drive, and Kendall Drive from Campus Parkway to Palm Avenue. Construction truck traffic shall be prohibited on all other roadways, unless compelling circumstances warrant such movements (e.g., a major traffic accident).
- Signage shall be installed at construction truck ingress and egress points alerting motorists to such movements.
- Soil, debris, or other loose materials shall be covered with tarps or other restraining material during haul movements on roadways
- On-site and off-site construction staging and parking locations shall be identified, as well as any necessary shuttle service needed to transport workers from off-site locations. For safety reasons, off-site staging or parking shall not

be allowed west of Northpark Boulevard or on the CSUSBCal State San Bernardino campus.

- A pre-construction conference shall be held advising all construction contractors of the requirements of the Construction Traffic, Staging, and Parking Management Plan.

Level of Significance After Mitigation

Less than significant impact.



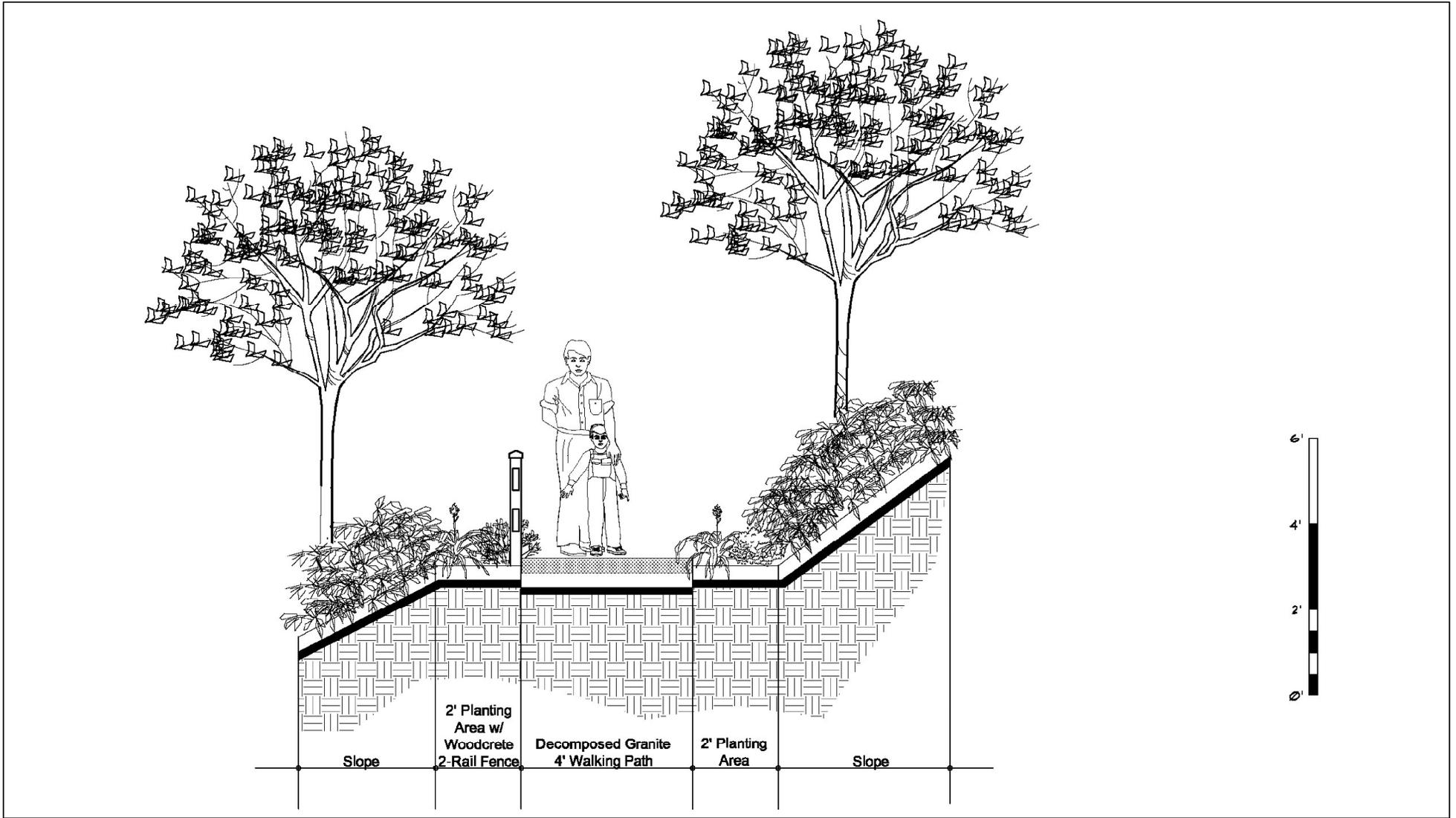
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Exhibit 4.12-4
Trail Master Plan

UNIVERSITY HILLS SPECIFIC PLAN EIR



Source: PBS&J.

