

North Hollywood to Pasadena  
Bus Rapid Transit (BRT) Corridor  
Planning and Environmental Study

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TRANSPORTATION  
TECHNICAL REPORT

*Prepared For:*



**Metro**<sup>TM</sup>

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## ACRONYMS AND ABBREVIATIONS

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ADA	Americans with Disabilities Act
ATP	Active Transportation Project
BRT	Bus Rapid Transit
Caltech	California Institute of Technology
Caltrans	California Department of Transportation
CE	Commuter Express
CEQA	California Environmental Quality Act
CSUN	California State University Northridge
EB	Eastbound
EIR	Environmental Impact Report
HOV	High Occupancy Vehicle
LADOT	Los Angeles Department of Transportation
LOS	Level of Service
Metro	Los Angeles County Metropolitan Transportation Authority
MPO	Metropolitan Planning Organization
NSFV	North San Fernando Valley
P&E	Planning and Environmental
PCC	Pasadena Community College
ROW	Right-of-Way
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
sq. ft.	Square Feet
SR	State Route
TMP	Transportation Management Plan
TSP	Transit Signal Priority
VMT	Vehicle Miles Traveled
WB	Westbound

# 1. Introduction

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The Los Angeles County Metropolitan Transportation Authority (Metro) is proposing the North Hollywood to Pasadena Bus Rapid Transit (BRT) Corridor Project (Proposed Project or Project) which would provide a BRT service connecting several cities and communities between the San Fernando and San Gabriel Valleys. Specifically, the Proposed Project would consist of a BRT service that runs from the North Hollywood Metro B/G Line (Red/Orange) station in the City of Los Angeles through the Cities of Burbank, Glendale, the community of Eagle Rock in the City of Los Angeles, and Pasadena, ending at Pasadena City College (PCC). The Proposed Project with route options would operate along a combination of local roadways and freeway sections with various configurations of mixed-flow and dedicated bus lanes depending on location. A Draft Environmental Impact Report (EIR) is being prepared for the following purposes:

- To satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.).
- To inform public agency decision-makers and the public of the significant environmental effects of the Proposed Project, as well as possible ways to minimize those significant effects, and reasonable alternatives to the Proposed Project that would avoid or minimize those significant effects.
- To enable Metro to consider environmental consequences when deciding whether to approve the Proposed Project.

This Transportation Technical Report is comprised of the following sections:

1. Introduction
2. Project Description
3. Regulatory Framework
4. Existing Setting
5. Proposed Project BRT Configurations and Service
6. Significance Thresholds and Methodology
7. Impact Analysis
8. Cumulative Analysis
9. References
10. List of Preparers

## 2. Project Description

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This section is an abbreviated version of the Project Description contained in the Draft EIR. This abbreviated version provides information pertinent to the Technical Reports. Please reference the Project Description in the Draft EIR for additional details about the Proposed Project location and surrounding uses, project history, project components, and construction methods. The Draft EIR also includes a more comprehensive narrative description providing additional detail on the project routing, station locations, and proposed roadway configurations. Unless otherwise noted, the project description is valid for the Proposed Project and all route variations, treatments, and configurations.

### 2.1 PROJECT ROUTE DESCRIPTION

Metro is proposing the BRT service to connect several cities and communities between the San Fernando and San Gabriel Valleys. The Proposed Project extends approximately 18 miles from the North Hollywood Metro B/G Line (Red/Orange) Station on the west to PCC on the east. The BRT corridor generally parallels the Ventura Freeway (State Route (SR) 134) between the San Fernando and San Gabriel Valleys and traverses the communities of North Hollywood and Eagle Rock in the City of Los Angeles as well as the Cities of Burbank, Glendale, and Pasadena. Potential connections with existing high-capacity transit services include the Metro B Line (Red) and G Line (Orange) in North Hollywood, the Metrolink Antelope Valley and Ventura Lines in Burbank, and the Metro L Line (Gold) in Pasadena. The Study Area includes several dense residential areas as well as many cultural, entertainment, shopping and employment centers, including the North Hollywood Arts District, Burbank Media District, Downtown Burbank, Downtown Glendale, Eagle Rock, Old Pasadena and PCC (see **Figure 1**).

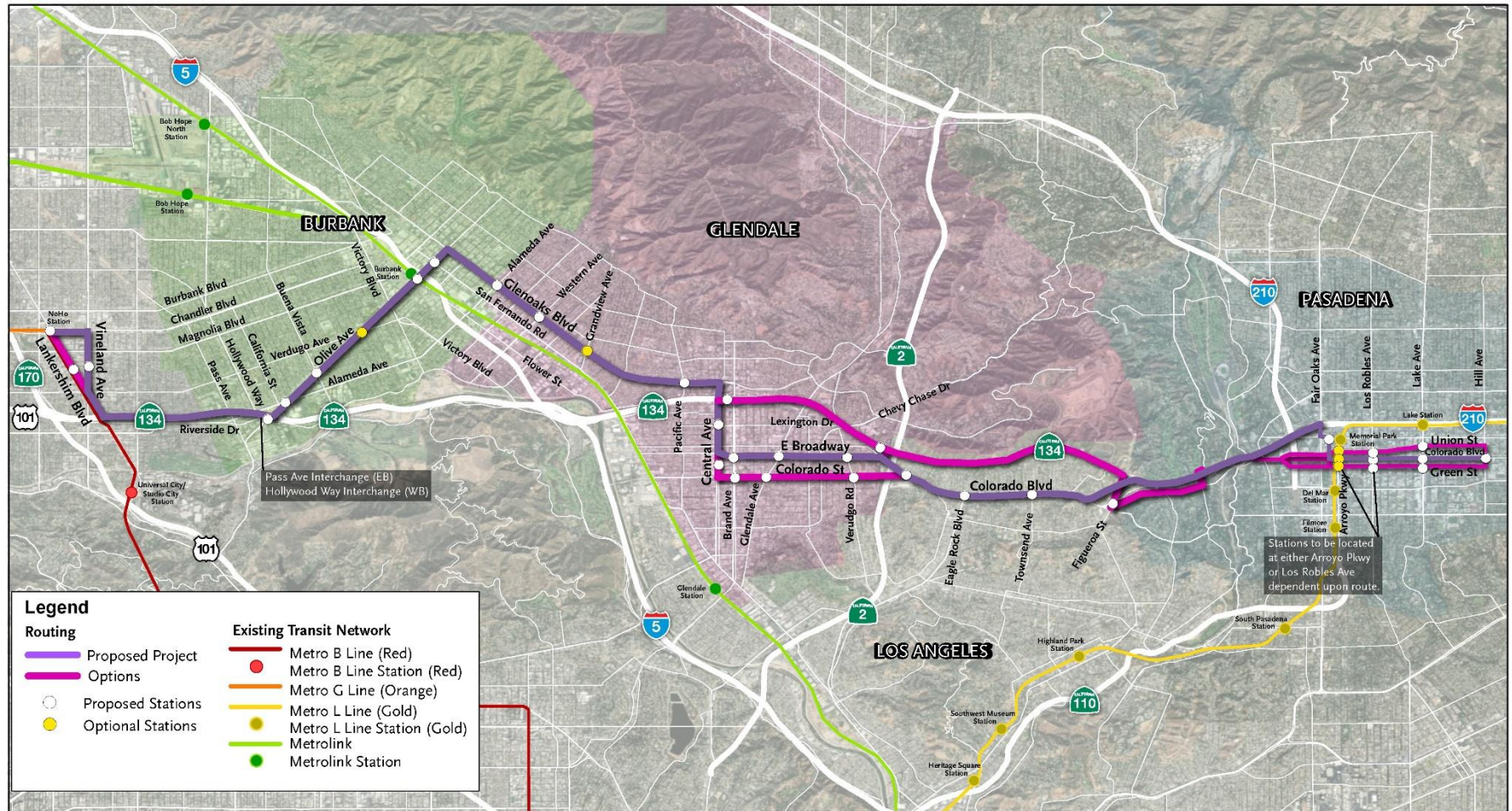
### 2.2 BRT ELEMENTS

BRT is intended to move large numbers of people quickly and efficiently to their destinations. BRT may be used to implement rapid transit service in heavily traveled corridors while also offering many of the same amenities as light rail but on rubber tires and at a lower cost. The Project would provide enhanced transit service and improve regional connectivity and mobility by implementing several key BRT elements. of the BRT that are further addressed below and include:

- Dedicated bus lanes on city streets
- Transit signal priority (TSP)
- Enhanced stations with all-door boarding



**Figure 1 – Proposed Project with Route Options**





## 2.3 DEDICATED BUS LANES

The Proposed Project would generally include dedicated bus lanes where there is adequate existing street width, while operating in mixed traffic within the City of Pasadena. BRT service would operate in various configurations depending upon the characteristics of the roadways as shown below:

- **Center-Running Bus Lanes:** Typically includes two lanes (one for each direction of travel) located in the center of the roadway. Stations are usually provided on islands at intersections and are accessible from the crosswalk.
- **Median-Running Bus Lanes:** Typically includes two lanes (one for each direction of travel) located in the inside lane adjacent to a raised median in the center of the roadway. Stations are usually provided on islands at intersections and are accessible from the crosswalk.
- **Side-Running Bus Lanes:** Buses operate in the right-most travel lane separated from the curb by bicycle lanes, parking lanes, or both. Stations are typically provided along curb extensions where the sidewalk is widened to meet the bus lane. At intersections, right-turn bays may be provided to allow buses to operate without interference from turning vehicles and pedestrians.
- **Curb-Running Operations:** Buses operate in the right-most travel lane immediately adjacent to the curb. Stations are located along the sidewalk which may be widened to accommodate pedestrian movement along the block. Right-turning traffic merges with the bus lane approaching intersections and buses may be delayed due to interaction with right-turning vehicles and pedestrians.
- **Mixed-Flow Operations:** Where provision of dedicated bus lanes is impractical, the BRT service operates in lanes shared with other roadway vehicles, although potentially with transit signal priority. For example, where the service transitions from a center-running to side-running configuration, buses would operate in mixed-flow. Buses would also operate in mixed-flow along freeway facilities.

**Table 1** provides the bus lane configurations for each route segment of the Proposed Project.

**Table 1 – Route Segments**

Key	Segment	From	To	Bus Lane Configuration
<b>A1 (Proposed Project)</b>	<b>Lankershim Blvd.</b>	<b>No. Chandler Blvd.</b>	<b>Chandler Blvd.</b>	<b>Mixed-Flow</b>
	<b>Chandler Blvd.</b>	<b>Lankershim Blvd.</b>	<b>Vineland Ave.</b>	<b>Side-Running</b>
	<b>Vineland Ave.</b>	<b>Chandler Blvd.</b>	<b>Lankershim Blvd.</b>	<b>Center-Running</b>
	<b>Lankershim Blvd.</b>	<b>Vineland Ave.</b>	<b>SR-134 Interchange</b>	<b>Center-Running Mixed-Flow<sup>1</sup></b>
A2 (Route Option)	Lankershim Blvd.	No. Chandler Blvd.	SR-134 Interchange	Side-Running Curb-Running <sup>2</sup>
<b>B (Proposed Project)</b>	<b>SR-134 Freeway</b>	<b>Lankershim Blvd.</b>	<b>Pass Ave. (EB) Hollywood Wy. (WB)</b>	<b>Mixed-Flow</b>
<b>C (Proposed Project)</b>	<b>Pass Ave. – Riverside Dr. (EB) Hollywood Wy. – Alameda Ave. (WB)</b>	<b>SR-134 Freeway</b>	<b>Olive Ave.</b>	<b>Mixed-Flow<sup>3</sup></b>
	<b>Olive Ave.</b>	<b>Hollywood Wy. (EB) Riverside Dr. (WB)</b>	<b>Glenoaks Blvd.</b>	<b>Curb-Running</b>
<b>D (Proposed Project)</b>	<b>Glenoaks Blvd.</b>	<b>Olive Ave.</b>	<b>Central Ave.</b>	<b>Curb-Running Median-Running<sup>4</sup></b>
<b>E1 (Proposed Project)</b>	<b>Central Ave.</b>	<b>Glenoaks Blvd.</b>	<b>Broadway</b>	<b>Mixed-Flow Side-Running<sup>5</sup></b>
	<b>Broadway</b>	<b>Central Ave.</b>	<b>Colorado Blvd.</b>	<b>Side-Running</b>
E2 (Route Option)	Central Ave.	Glenoaks Blvd.	Colorado St.	Mixed-Flow Side-Running
	Colorado St. – Colorado Blvd.	Central Ave.	Broadway	Side-Running
E3 (Route Option)	Central Ave.	Glenoaks Blvd.	Goode Ave. (WB) Sanchez Dr. (EB)	Mixed-Flow
	Goode Ave. (WB) Sanchez Dr. (EB)	Central Ave.	Brand Blvd.	Mixed-Flow
	SR-134 <sup>6</sup>	Brand Blvd.	Harvey Dr.	Mixed-Flow
<b>F1 (Route Option)</b>	Colorado Blvd.	Broadway	Linda Rosa Ave. (SR-134 Interchange)	<b>Side-Running</b>
				Side-Running Center Running <sup>7</sup>
<b>F2 (Proposed Project)</b>	<b>Colorado Blvd.</b>	<b>Broadway</b>	<b>Linda Rosa Ave. (SR-134 Interchange)</b>	<b>Side-Running</b>

Key	Segment	From	To	Bus Lane Configuration
<b>F3 (Route Option)</b>	SR-134	Harvey Dr.	Figueroa St.	Mixed-Flow
	Figueroa St.	SR-134	Colorado Blvd.	<b>Mixed-Flow</b>
	Colorado Blvd.	Figueroa St.	SR-134 via N. San Rafael Ave. Interchange	<b>Mixed-Flow</b>
<b>G1 (Proposed Project)</b>	<b>SR-134</b>	<b>Colorado Blvd.</b>	<b>Fair Oaks Ave. Interchange</b>	<b>Mixed-Flow</b>
	<b>Fair Oaks Ave.</b>	<b>SR-134</b>	<b>Walnut St.</b>	<b>Mixed-Flow</b>
	<b>Walnut St.</b>	<b>Fair Oaks Ave.</b>	<b>Raymond Ave.</b>	<b>Mixed-Flow</b>
	<b>Raymond Ave.</b>	<b>Walnut St.</b>	<b>Colorado Blvd. or Union St./Green St.</b>	<b>Mixed-Flow</b>
G2 (Route Option)	SR-134	Colorado Blvd.	Colorado Blvd. Interchange	Mixed-Flow
	Colorado Blvd. or Union St./Green St.	Colorado Blvd. Interchange	Raymond Ave.	Mixed-Flow
<b>H1 (Proposed Project)</b>	<b>Colorado Blvd.</b>	<b>Raymond Ave.</b>	<b>Hill Ave.</b>	<b>Mixed-Flow</b>
H2 (Route Option)	Union St. (WB) Green St. (EB)	Raymond Ave.	Hill Ave.	Mixed-Flow

Notes:

<sup>1</sup>South of Kling St.

<sup>2</sup>South of Huston St.

<sup>3</sup>Eastbound curb-running bus lane on Riverside Dr. east of Kenwood Ave.

<sup>4</sup>East of Providencia Ave.

<sup>5</sup>South of Sanchez Dr.

<sup>6</sup>Route continues via Broadway to Colorado/Broadway intersection (Proposed Project F2 or Route Option F1) or via SR-134 (Route Option F3)

<sup>7</sup>Transition between Ellenwood Dr. and El Rio Ave.

## 2.4 TRANSIT SIGNAL PRIORITY

TSP expedites buses through signalized intersections and improves transit travel times. Transit priority is available areawide within the City of Los Angeles and is expected to be available in all jurisdictions served by the time the Proposed Project is in service. Basic functions are described below:

- **Early Green:** When a bus is approaching a red signal, conflicting phases may be terminated early to obtain the green indication for the bus.
- **Extended Green:** When a bus is approaching the end of a green signal cycle, the green may be extended to allow bus passage before the green phase terminates.
- **Transit Phase:** A dedicated bus-only phase is activated before or after the green for parallel traffic to allow the bus to proceed through the intersection. For example, a queue jump may be implemented in which the bus departs from a dedicated bus lane or a station ahead of other traffic, so the bus can weave across lanes or make a turn.

## 2.5 ENHANCED STATIONS

It is anticipated that the stations servicing the Proposed Project may include the following elements:

- Canopy and wind screen
- Seating (benches)
- Illumination, security video and/or emergency call button
- Real-time bus arrival information
- Bike racks
- Monument sign and map displays

Metro is considering near-level boarding which may be achieved by a combination of a raised curb along the boarding zone and/or ramps to facilitate loading and unloading. It is anticipated that BRT buses would support all door boarding with on-board fare collection transponders in lieu of deployment of ticket vending machines at stations.

The Proposed Project includes 21 proposed stations and two “optional” stations, and additional optional stations have been identified along the Route Options, as indicated in **Table 2**. Of the 21 proposed stations, four would be in the center of the street or adjacent to the median, and the remaining 17 stations would be situated on curbs on the outside of the street.

**Table 2 – Proposed/Optional Stations**

Jurisdiction	Proposed Project	Route Option
<b>North Hollywood (City of Los Angeles)</b>	North Hollywood Transit Center (Metro B/G Lines (Red/Orange) Station)	
	Vineland Ave./Hesby St.	Lankershim Blvd./Hesby St.
<b>City of Burbank</b>	Olive Ave./Riverside Dr.	
	Olive Ave./Alameda Ave.	
	Olive Ave./Buena Vista St.	
	Olive Ave./Verdugo Ave. (optional station)	
	Olive Ave./Front St. (on bridge at Burbank-Downtown Metrolink Station)	
	Olive Ave./San Fernando Blvd.	
<b>City of Glendale</b>	Glenoaks Blvd./Alameda Ave.	
	Glenoaks Blvd./Western Ave.	
	Glenoaks Blvd./Grandview Ave. (optional station)	
	Central Ave./Lexington Dr.	Goode Ave. (WB) & Sanchez Dr. (EB) west of Brand Blvd.
		Central Ave./Americana Way
	Broadway/Brand Blvd.	Colorado St./Brand Blvd.
	Broadway/Glendale Ave.	Colorado St./Glendale Ave.
	Broadway/Verdugo Rd.	Colorado St./Verdugo Rd.
		SR-134 EB off-ramp/WB on-ramp west of Harvey Dr.
<b>Eagle Rock (City of Los Angeles)</b>	Colorado Blvd./Eagle Rock Plaza	
	Colorado Blvd./Eagle Rock Blvd.	
	Colorado Blvd./Townsend Ave.	Colorado Blvd./Figueroa St.
<b>City of Pasadena</b>	Raymond Ave./Holly St. <sup>1</sup> (near Metro L Line (Gold) Station)	
	Colorado Blvd./Arroyo Pkwy. <sup>2</sup>	Union St./Arroyo Pkwy. (WB) <sup>2</sup> Green St./Arroyo Pkwy. (EB) <sup>2</sup>
	Colorado Blvd./Los Robles Ave. <sup>1</sup>	Union St./Los Robles Ave. (WB) <sup>1</sup> Green St./Los Robles Ave. (EB) <sup>1</sup>
	Colorado Blvd./Lake Ave.	Union St./Lake Ave. (WB) Green St./Lake Ave. (EB)
	PCC (Colorado Blvd./Hill Ave.)	PCC (Hill Ave./Colorado Blvd.)

<sup>1</sup>With Fair Oaks Ave. interchange routing

<sup>2</sup>With Colorado Blvd. interchange routing

## 2.6 DESCRIPTION OF CONSTRUCTION

Construction of the Proposed Project would likely include a combination of the following elements dependent upon the chosen BRT configuration for the segment: restriping, curb-and-gutter/sidewalk reconstruction, right-of-way (ROW) clearing, pavement improvements, station/loading platform construction, landscaping, and lighting and traffic signal modifications. Generally, construction of dedicated bus lanes consists of pavement improvements including restriping, whereas ground-disturbing activities occur with station construction and other support structures. Existing utilities would be protected or relocated. Due to the shallow profile of construction, substantial utility conflicts are not anticipated, and relocation efforts should be brief. Construction equipment anticipated to be used for the Proposed Project consists of asphalt milling machines, asphalt paving machines, large and small excavators/backhoes, loaders, bulldozers, dump trucks, compactors/rollers, and concrete trucks. Additional smaller equipment may also be used such as walk-behind compactors, compact excavators and tractors, and small hydraulic equipment.

The construction of the Proposed Project is expected to last approximately 24 to 30 months. Construction activities would shift along the corridor so that overall construction activities should be of relatively short duration within each segment. Most construction activities would occur during daytime hours. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions. Traffic control and pedestrian control during construction would follow local jurisdiction guidelines and the Work Area Traffic Control Handbook. Typical roadway construction traffic control methods would be followed including the use of signage and barricades.

It is anticipated that publicly owned ROW or land in proximity to the Proposed Project's alignment would be available for staging areas. Because the Proposed Project is anticipated to be constructed in a linear segment-by-segment method, there would not be a need for large construction staging areas in proximity to the alignment.

## 2.7 DESCRIPTION OF OPERATIONS

The Proposed Project would provide BRT service from 4:00 a.m. to 1:00 a.m. or 21 hours per day Sunday through Thursday, and longer service hours (4:00 a.m. to 3:00 a.m.) would be provided on Fridays and Saturdays. The proposed service span is consistent with the Metro B Line (Red). The BRT would operate with 10-minute frequency throughout the day on weekdays tapering to 15 to 20 minutes frequency during the evenings, and with 15-minute frequency during the day on weekends tapering to 30 minutes in the evenings. The BRT service would be provided on 40-foot zero-emission electric buses with the capacity to serve up to 75 passengers, including 35-50 seated passengers and 30-40 standees, and a maximum of 16 buses are anticipated to be in service along the route during peak operations. The buses would be stored at an existing Metro facility.



## 3. Regulatory Framework

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### 3.1 FEDERAL REGULATIONS

The Proposed Project is not being undertaken by a federal agency or using federal funds; therefore, the environmental evaluation is performed under CEQA regulations as discussed below.

### 3.2 STATE REGULATIONS

#### 3.2.1 California Environmental Quality Act

In 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update, including Senate Bill 743. Senate Bill 743 changes the way transportation impacts are analyzed under CEQA from level of service (LOS) to vehicle miles traveled (VMT). State guidelines require all cities to update their transportation impact analysis metrics to VMT before July 1, 2020. CEQA generally defers to the cities on the choice of methodology to analyze VMT impacts.

#### 3.2.2 Assembly Bill 1358 – The Complete Streets Act

This law requires cities and counties to include complete streets policies as part of their general plans so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, elderly people, and people with mobility and visual/hearing impairments, as well as motorists. Beginning January 2011, any substantive revision of the circulation element in the general plan of a California local government would include complete streets provisions.

### 3.3 REGIONAL REGULATIONS

#### 3.3.1 Southern California Association of Governments

**2020-2025 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS).** Metropolitan planning organizations (MPO) are designated local decision-making bodies that carry out the federal transportation planning process. SCAG is the federally designated MPO for Los Angeles County. SCAG is required to adopt and periodically update a RTP. SCAG's 2020-2045 RTP/SCS presents the latest transportation vision for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties through 2045 and provides a long-term investment framework for addressing the region's transportation and growth challenges. The expansion of public transit and displacement of on-road light duty automobile and truck travel are recognized in 2020-2045 RTP/SCS as crucial pillars of sustainable regional transportation planning.

### 3.3.2 Los Angeles County Metropolitan Transportation Authority

**Metro Active Transportation Strategic Plan.** Finalized in April 2016, the Active Transportation Strategic Plan focuses on enhancing access to transit stations and developing a regional network for people who choose to take transit, walk, and/or bike. The Strategic Plan serves as a roadmap for stakeholders and partners to help identify transportation concepts and changes they would like to see in their community. Several regional active transportation network guiding principles were established as part of this plan:

- Connect cities and communities – emphasizes connectivity between communities, as opposed to connectivity within local jurisdictions. However, regional routes will still play a role in local travel.
- Serve desire lines – enables bicycle travel on the routes that people want to use. People generally want routes that are direct and safe.
- Serve Main Street – embraces routes that link directly to the core of cities, serving historic Main Streets and Central Business Districts.
- Harness continuous rights-of-way – relies upon continuous rights-of-way (both natural and human-made) to provide unhindered movement for long stretches.
- Link to transit – seeks opportunities to connect with major transit hubs, particularly if these hubs are in population centers.
- Address existing safety problems – improves travel conditions along routes with a history of bicycle crashes.
- Design for all ages and abilities – the facilities comprising the Regional Active Transportation Network meet a minimum standard of service, suitable for use by children and seniors.

**Metro First/Last Mile Policy (Motion 14.1).** Metro Board Motion 14.1 (May 2016) calls for the integration of first/last mile planning and delivery integration with new transit capital projects. First/last mile improvements for transit stations are generally focused on walk and bike access and safety and defined through a station-location specific planning process. The process for integrating first/last mile with this project along with other Bus Rapid Transit corridors will be defined in pending First/Last Mile Program Guidelines to be completed by early 2021.

## 3.4 LOCAL REGULATIONS

### 3.4.1 City of Los Angeles

**General Plan, Framework.** The City's General Plan Framework Element is the citywide plan that establishes how Los Angeles will grow in the future. The Framework Element is a strategy for long-range growth and development, setting a citywide context for the update of Community Plans and citywide elements. The Framework Element responds to State and Federal mandates to plan for the future by providing goals, policies, and objectives on a variety of topics, such as land use, housing, urban form, open space, transportation, infrastructure, and public services.

City of Los Angeles Bicycle Plan. The City of Los Angeles' 2010 Bicycle Plan, adopted on March 1, 2011, designates a 1,680-mile bikeway system and introduces a comprehensive collection of programs and policies for the City. Collectively the policies, programs, projects and recommendations in the 2010 Bicycle Plan are intended to create an environment that increases, improves and enhances bicycling in the city as a safe, healthy, and enjoyable means of transportation and recreation for bicyclists.

**Mobility Plan 2035.** Adopted in September 2016, the Mobility Plan 2035 provides the policy foundation for achieving a transportation system that balances the needs of all road users. The plan recognizes that primary emphasis must be placed on maximizing the efficiency of existing and proposed transportation infrastructure through advanced transportation technology, through reduction of vehicle trips, and through focusing growth in proximity to public transit. The plan incorporates the "complete streets" principle.

### 3.4.2 City of Burbank

**Media District Specific Plan.** Adopted in January 1991, the Media District Specific Plan is a plan for the commercial and industrial businesses in southwest Burbank. The Plan assures all new development can be accommodated by infrastructure and public services while funding their fair-share cost for improvements. Additionally, the Plan contains a neighborhood protection program to preserve the character and quality of the surrounding single-family residential neighborhoods.

**Burbank Center Plan.** Adopted June 10, 1997, the Burbank Center Plan is an economic revitalization plan that addresses long range land use and transportation planning of the downtown area. The Plan also contains land use and development standards designed to encourage mixed-use projects that would minimize the volume of vehicular traffic by encouraging the development of a variety of compatible uses within close proximity and the use of public transit, carpooling, and pedestrian traffic within the area.

**Bicycle Master Plan.** Adopted December 15, 2009, the Bike Master Plan is a policy document to guide the development and maintenance of a bicycle network, support facilities, and other programs for Burbank over a 25-year horizon. It includes policies around bike planning, community involvement, utilization of existing resources, facility design, multi-modal integration, safety education, support facilities, as well as programs, implementation strategies, maintenance, and funding. The City of Burbank recognizes that a bicycle-friendly environment enhances the quality of life for residents, workers, and visitors in the City.

**General Plan.** Adopted February 19, 2013, Burbank2035 is the City of Burbank's General Plan. Burbank2035 provides guidance to City decision-makers on allocating resources and determining the future physical form and character of development. Burbank2035 evaluated many different planning chapters including air quality and climate change, land use, mobility, noise, open space and conservation, safety, and plan realization. The Mobility Element defines the transportation network and describes how people move throughout the city, including the streets, railways, transit routes, bike paths, and sidewalks.

### 3.4.3 City of Glendale

**Circulation Element of the General Plan.** Adopted August 1998, the Circulation Element of the General Plan defines the goals and policies for managing the movement of people and goods through the City. The plan developed a vision of a circulation system which preserves and enhances the quality of life in the City by allowing for commerce to thrive, protecting the character of residential neighborhoods, and minimizing adverse environmental impacts.

**Bicycle Transportation Plan.** Adopted August 28, 2012, the City of Glendale's Bicycle Transportation Plan proposed a variety of measures, including the improvement of the existing bicycle facilities, construction of new bike routes linking major activity centers, the installation of secured bicycle parking equipment, and the expansion of bicycle education/advocacy programs to enhance public awareness.

**Downtown Specific Plan.** Adopted March 26, 2019, the Downtown Specific Plan is a mixed-use, urban design plan that establishes the desired physical vision for Downtown Glendale through a clear and comprehensive set of policies, incentives, and requirements. The Plan establishes a coherent and consistent regulatory framework of standards and guidelines in the form of an easy-to-read, graphics-based manual. It sets the physical standards and guidelines as well as land use regulations, and directs policies for economic development, streetscape improvements, transportation development, parking, pedestrian amenities, open space and land use, preservation of cultural resources, and public art. The Downtown Specific Plan mobility policies maximize the accessibility, safety, and efficiency of the downtown transportation system for all users, including pedestrians, transit passengers, cyclists, and drivers of both personal and commercial vehicles.

### 3.4.4 City of Pasadena

**Mobility Element of the General Plan.** Adopted August 18, 2015, the Mobility Element of the City of Pasadena's General Plan addresses all modes of travel such as walking, bicycling, transit, and driving, and provides a guide for the continuing development of the transportation system to support planned growth. It contains measures for the implementation of goals and policies and addresses the requirements of California state law regarding the transportation needs of the community within the context of the region. The Mobility Element identifies Mobility Objectives, which are specific strategies and guidelines for enhancing livability, strengthening the local economy, and improving all methods of travel in Pasadena.

**Bicycle Transportation Action Plan.** Adopted August 17, 2015, the Bicycle Transportation Action Plan provides specific goals, objectives, actions, and timelines for creating an environment (1) where people circulate without a car, (2) that significantly increases the number of people who commute by bike, (3) that increases the number of people who use a bike for utilitarian trips, fitness and recreation, and (4) that provides business and economic benefits for the City. The plan provides details for a network of bikeways so that every neighborhood is within 1/4 mile of an effective bicycling route in the north-south and east-west directions. The plan outlines educational, engagement, enforcement, and evaluation strategies designed to increase bicyclist safety by educating both bicyclists and motorists.

## 4. Existing Setting

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Compiling information on existing conditions involved data collection that included compilation of transit service, traffic counts, traffic signal timing plans, and field work to determine lane geometries, traffic control, on-street parking, and pedestrian and bicycle facilities and activities.

### 4.1 TRANSIT SYSTEM

There are multiple transit providers within the Project corridor, including Metro, City of Los Angeles Department of Transportation (LADOT), BurbankBus, Glendale Beeline, Pasadena Transit, and Foothill Transit, as well as Metrolink commuter rail service via the Antelope Valley and Ventura County lines. For the purpose of this analysis, Metro's NextGen service redesign is used as the baseline condition for Metro transit service, as it is expected to begin implementation in December 2020. The NextGen Bus Plan was developed to implement a new competitive bus system in Los Angeles County that is fast, frequent, reliable and accessible.

The following discussion organizes the transit services into three groupings: (1) corridor-spanning, (2) supporting Metro bus and rail services, and (3) service by other operators.

#### 4.1.1 Corridor-Spanning Service

With Metro's NextGen service redesign, one route maintains connection between the North Hollywood Station and Pasadena. Metro 501 is an express service that has been in operation since March 2016, connecting North Hollywood and Pasadena via the SR-134 with limited stops at major employment centers in Burbank and northern Glendale. NextGen weekday service frequency on Metro 501 is proposed to be every 15 minutes in the AM and PM peak periods, with service every 15-30 minutes in the weekday base period.

Commuter Express (CE) 549, operated by LADOT, also serves the entire length of the North Hollywood to Pasadena corridor. The route begins in Encino, serves parts of the southern San Fernando Valley and connects with the Metro B/G lines (Red/Orange) in North Hollywood before joining the SR-134 at Lankershim Boulevard. The eastern part of the route is similar to Metro 501, serving Glendale and Pasadena. The CE 549 has a weekday frequency of 20 trips per day. The route does not provide weekend service.

#### 4.1.2 Supporting Metro Bus and Rail Service

Metro operates a considerable amount of bus and rail service in the Project corridor. The Metro hierarchy of services include rail, BRT, express bus, and local bus services, as illustrated in **Figure 2**. Routes presented in **Figure 2** reflect proposed NextGen service changes.

**Figure 2 – Metro Bus and Rail Service in Project Corridor (reflects proposed NextGen changes)**

Rail	BRT	Local	Shuttles
B (Red) Line L (Gold) Line	G (Orange) Line	28 152 222 81 154 224 83 155 237 90 162 256 92 165 258 94 165 260 96 180 267 183	603 684 686
	Express		
	501		

Rail service includes the Metro B Line (Red) in North Hollywood (with service to Downtown Los Angeles and Union Station) and the L Line (Gold) in Pasadena (with service to Union Station and East Los Angeles, and to Azusa). Metro is also currently constructing the Regional Connector tunnel through Downtown Los Angeles. With completion of the tunnel (slated for December 2021), the Azusa-Pasadena branch of the L Line (Gold) would be realigned to connect with the A Line (Blue), with service from Azusa to Long Beach via Pasadena.

The study area has one existing BRT line, the Metro G Line (Orange) operating between Chatsworth and North Hollywood.

With the implementation of NextGen in late 2020, resources from Metro's Rapid bus service (existing 700 route series) are reinvested in consolidated local service operating on the same corridors. The NextGen plan will provide four tiers of service with Tier 1 operating on a 5 to 7.5 minute peak period frequency, Tier 2 on a 10 minute frequency, Tier 3 on a 15 minute frequency and Tier 4 on a 30+ minute frequency. There will be some flexibility in establishing specific headways as the plan is implemented, however the initial indications within the project corridor are summarized as follows: Metro Rapids 762, 780, and 794 would be replaced by reconstructed and more frequent service on Metro 260, 180, and 94, respectively. Metro 260 would operate between Pasadena and Artesia with a weekday frequency of 12 minutes throughout the day. Metro 180 would operate between Pasadena and La Cienega/Jefferson E Line (Expo) Station with a weekday frequency of 7.5 minutes throughout the day. Metro 94 would operate between North Hollywood Station and Downtown Los Angeles, with a weekday frequency of 15 minutes throughout the day.

The Metro bus network includes a distinct line identification and route numbering system. Metro local bus services with line numbers under 100 are those routes that serve Downtown Los Angeles. Those lines with numbers in the 100s are east-west routes and those with numbers in the 200s are north-south routes, which do not serve Downtown Los Angeles. Together, the three types of local routes form a comprehensive network that serves travelers within the



Project corridor, although terrain limits the ability to create a true grid of service and no single local route serves the full corridor from North Hollywood to Pasadena. Reconfigured Metro 180 comes the closest to serving the corridor, linking Pasadena, Eagle Rock and Glendale via Colorado Boulevard and Broadway, before continuing to Hollywood Boulevard and south on Fairfax Avenue to terminate at the La Cienega/Jefferson Station on the E Line (Expo).

#### 4.1.3 Service by Other Operators

As noted previously, municipal and local bus operators provide additional bus service within the Project corridor, including LADOT, Burbank, Glendale, Pasadena, and Foothill Transit. Metrolink is a commuter rail service operated by the Southern California Regional Rail Authority. For the most part, service is provided six days a week with these operators. While not discussed below, Santa Clarita Transit has commuter Route 757 from Santa Clarita to the North Hollywood Station.

##### Los Angeles Department of Transportation

LADOT operates two types of services: CE routes operating in weekday peak periods between park-and-ride lots and major employment centers, and DASH routes providing connectivity through local neighborhoods. Besides LADOT CE 549, discussed under corridor-based service, commuter express routes operating in the Project corridor include:

- LADOT CE 409 between Sylmar and Downtown Los Angeles via the SR-2/Glendale Freeway.
- LADOT CE 419 between Chatsworth and Downtown Los Angeles via the I-5/Golden State Freeway.

DASH routes operating in the study corridor include:

- LADOT DASH Highland Park/Eagle Rock, operating with a 20-minute frequency throughout the day, Monday through Saturday.

##### BurbankBus

The City of Burbank operates three BurbankBus routes in the Project corridor:

- NoHo/Airport operates via Burbank Boulevard, Hollywood Way, and Buena Vista Street to the Hollywood Burbank Airport. Service is every 15 minutes in the peak and every 20 minutes in the midday and evenings, weekdays only.
- NoHo/Media operates via Magnolia Boulevard, Hollywood Way, and Buena Vista Street to the Media District. Service is every 12 minutes during peak periods only.
- Pink Route operates via Cahuenga Boulevard, Riverside Drive, and Olive Avenue to the Burbank-Downtown Metrolink Station. Service is every 15 minutes during peak periods, and 30 minutes during midday.

These routes connect the major destinations within the city, operating along main thoroughfares.

## Glendale Beeline

The City of Glendale operates eleven Glendale Beeline routes within the Project corridor:

- Glendale Beeline Routes 1 and 2 operate along Brand Boulevard and Central Avenue, forming a spine with the highest consistent frequencies in the Glendale Beeline system.
- Glendale Beeline Routes 1, 2 and 4 are the only three in the system that operate seven days a week.
- Glendale Beeline Routes 3/31/32 connect Downtown Glendale to Glendale Avenue and the Jet Propulsion Laboratory.
- Glendale Beeline Routes 5 through 7 serve major corridors and destinations on all sides of the city. These routes operate six days a week.
- Glendale Beeline Routes 11 and 12, dubbed Metrolink Express, operate weekdays only and connect to Metrolink stations (Route 11 to the Glendale Station and Route 12 to the Glendale and Burbank-Downtown Stations).

## Pasadena Transit

Pasadena Transit operates five routes within the Project corridor:

- All routes except for Pasadena Route 60 operate seven days a week. Pasadena Route 60 operates on weekdays only.
- Pasadena Routes 10, 20, 40, and 51/52 serve Downtown Pasadena and provide a connection to the Metro L Line (Gold).

## Foothill Transit

Foothill Transit operates one route within the study corridor:

- FT 187 is a local service, operating seven days a week along Colorado Boulevard in Pasadena. The route operates regionally between Pasadena, Arcadia, and Azusa.

## Metrolink

Metrolink operates two commuter rail lines that provide service at the Burbank-Downtown Station:

- Antelope Valley Line, operating seven days a week. This line has 30 weekday train trips and 12 weekend train trips serving the Burbank-Downtown Station.
- Ventura County Line, operating five days a week. This line has 34 weekday train trips (including one Amtrak trip) serving the Burbank-Downtown Station.

## 4.2 ROADWAY FACILITIES

### 4.2.1 Freeway Network

Ventura Freeway (SR-134) is the principal east-west freeway that spans the Project Area. This freeway connects Ventura County to Pasadena through the southern portion of the San Fernando Valley. Based on the annual counts conducted by the California Department of Transportation (Caltrans), the existing (2017) average daily traffic (ADT) on SR-134 ranges from 109,500 (west of I-5) to 242,000 (west of Pacific Avenue). SR-134 varies between three and five general purpose lanes in each direction, with several sections having an additional high occupancy vehicle (HOV) lane along with auxiliary lanes and/or collector/distributor roadways. Access ramps to/from SR-134 serving the Proposed Project and Route Options include the following:

- Lankershim Boulevard (eastbound on/ westbound off)
- North Pass Avenue (eastbound off)
- West Alameda Avenue (westbound on)
- Brand Boulevard (westbound off/ eastbound on)
- Harvey Drive (eastbound off/ westbound on, eastbound on/ westbound off)
- Figueroa Street (eastbound off/ westbound on)
- San Rafael Avenue (eastbound on/ westbound off)
- Fair Oaks Avenue (eastbound off/ westbound on)
- Colorado Boulevard (eastbound off/ westbound on)

### 4.2.2 Arterial Network

#### Los Angeles

The key roadways within the City of Los Angeles that are along the Proposed Project and Route Options are noted below. The City of Los Angeles Mobility Plan 2035 was used for street classification.

**Chandler Boulevard** – Chandler Boulevard, east of Lankershim Boulevard and west of Vineland Avenue, is a Class II Boulevard with one westbound lane and two eastbound lanes. On-street parking is permitted on both sides of the street and Class II bicycle lanes exist in both directions.

**Vineland Avenue** – Vineland Avenue, south of Chandler Boulevard and north of SR-134 Street, is a divided Class II Boulevard with two lanes in each direction. On-street parking is permitted on both sides of the street and Class II bicycle lanes exist in both directions.

**Lankershim Boulevard** – Lankershim Boulevard, south of Chandler Boulevard and north of Riverside Drive, is a Class II Boulevard with two lanes in each direction. On-street parking is permitted on both sides of the street.

**Riverside Drive** – Riverside Drive, east of Lankershim Boulevard and west of N Clybourn Avenue, is a Class I Avenue with two lanes in each direction. On-street parking is permitted on both sides of the street.

**West Broadway** – West Broadway, east of Harvey Drive and west of Colorado Boulevard, is a Class II Boulevard with two lanes in each direction. On-street parking is permitted on both sides of the street at some locations. There is an eastbound Class II bicycle lane and a westbound Class III bicycle route.

**Colorado Boulevard** – Colorado Boulevard, east of Eagledale Avenue and west of the SR-134 on-off ramps, is a Class II Boulevard with two lanes in each direction. On-street parking is permitted on both sides of the street and Class II bicycle lanes exist in each direction.

**Figueroa Street** – A two-lane arterial of variable width with supplemental lanes at principal intersections in the section where the project is routed.

### Burbank

The key roadways within the City of Burbank that are along the Proposed Project are noted below. The Mobility Element of the General Plan for the City of Burbank was used for street classification.

**North Pass Avenue** – A major arterial with two lanes in each direction. Limited parking is allowed between SR-134 and Riverside Drive.

**Riverside Drive** – Riverside Drive, east of North Pass Avenue and west of Olive Avenue, is a secondary arterial with two lanes in each direction. On-street parking is permitted on both sides of the street except for a short stretch between the SR-134 eastbound on-ramp and North Hollywood Way.

**North Hollywood Way** – A major arterial with two lanes in each direction. On-street parking is prohibited along this stretch.

**Olive Avenue** – Olive Avenue, northeast of Riverside Drive and southwest of Glenoaks Boulevard, is a major arterial with two lanes in each direction. On-street parking is permitted on both sides of the street.

**Glenoaks Boulevard** – Glenoaks Boulevard, southeast of Olive Avenue and northwest of Providencia Avenue, is a major arterial with two lanes in each direction. Southeast of Providencia Avenue and northwest of Alameda Avenue there are three lanes in each direction. On-street parking is permitted on both sides of the street.

**Hollywood Way** – Hollywood Way, south of Alameda Avenue and north of Riverside Drive, is a major arterial with two lanes in each direction. On-street parking is prohibited along this stretch.

**Alameda Avenue** – Alameda Avenue, east of Hollywood Way and west of North Cordova Street, is a major arterial with two eastbound lanes and three westbound lanes. On-street parking is prohibited along this stretch.

## Glendale

The key roadways within the City of Glendale that are along the Proposed Project and Route Options are noted below. The Circulation Element of the General Plan for the City of Glendale was used for street classification.

**Glenoaks Boulevard** – Glenoaks Boulevard, east of Alameda Avenue and west of Central Avenue, is a divided major arterial with three lanes in each direction. On-street parking is permitted on both sides of the street and Class II bicycle lanes exist in both directions, with the exception of the eastbound direction between Pacific Avenue and Central Avenue where the facility provides a Class III bicycle route.

**Central Avenue** – Central Avenue, south of Glenoaks Boulevard and north of Sanchez Drive, is a major arterial with two lanes in each direction and on-street parking is prohibited. South of Sanchez Drive and north of Lexington Drive there are two southbound lanes and three northbound lanes; on-street parking is prohibited and there are Class II bicycle lanes in each direction along this stretch. South of Lexington Drive and north of Broadway there are two lanes in each direction with on-street parking, and there are Class II bicycle lanes along most of this stretch. Lastly, south of Broadway and north of Colorado Street there are three lanes in each direction, on-street parking is prohibited, and there are no bicycle lanes.

**Goode Avenue** – A two to three lane one-way westbound frontage roadway connecting between the split diamond SR-134 interchange ramps at Brand Boulevard and Central Avenue.

**Sanchez Drive** – A three lane one-way eastbound frontage roadway connecting between the split diamond SR-134 interchange ramps at Central Avenue and Brand Boulevard.

**Broadway** – Broadway east of Central Avenue and west of Harvey Drive is a minor arterial with two lanes in each direction. On-street parking is permitted on both sides of the street and there is a Class III bicycle route in both directions.

**Colorado Street** – Colorado Street is a major arterial. East of Central Avenue and west of Louise Street there are generally three lanes in each direction, on-street parking is prohibited on both sides of the street and there are no bicycle lanes. East of Louise Street and west of Eagledale Avenue there are two lanes in each direction, on-street parking is permitted on both sides of the street and there are no bicycle lanes.

**Harvey Drive** – A four lane roadway connecting between Broadway and the SR-134 interchange north of Wilson Avenue.

**Wilson Avenue** – A four lane roadway with striped median connecting between Wilson Avenue and West Broadway in the City of Los Angeles. Parking is allowed along the south curb.

## Pasadena

Street classifications in Pasadena are defined in the Pasadena Street Design Guide. The key roadways within the City of Pasadena that are along the Proposed Project and Route Options are noted below. The Pasadena Department of Transportation's Mobility Element was used for street classification.

**Colorado Boulevard** – Colorado Boulevard, east of Orange Grove Boulevard and west of Hill Avenue, is a City Connector with two lanes in each direction. On-street parking is permitted on both sides of the street. It is noted that Colorado Boulevard is the designated route for the City's Rose Parade held annually on New Year's Day. Due to which, Colorado Boulevard is closed for all vehicular traffic from 10:00 p.m. on New Year's Eve to approximately 2:00 p.m. (or end of parade) on New Year's Day with a few traffic signals mast arms removed along the Parade Route. Special temporary detour route considerations are required since the Proposed Project is anticipated to service on Holidays.

**Green Street** – Green Street, east of Saint John Avenue and west of Arroyo Parkway (Historic Route 66), is a City Connector that is a one-way street with three eastbound lanes. East of Historic Route 66 and west of Los Robles Avenue there are four eastbound lanes. Lastly, east of Los Robles Avenue and west of Hill Avenue there are three eastbound lanes. On-street parking is permitted on the stretches with three eastbound lanes.

**Union Street** – Union Street west of Hill Avenue and east of Saint John Avenue is a City Connector that is a one-way street with three westbound lanes. On-street parking is permitted on both sides of the street. There is a stretch between Arroyo Parkway and De Lacey Avenue where there are only two westbound lanes and on-street parking is only permitted on one side of the street.

**Fair Oaks Avenue** – A City Connector with four to six lanes. Parking is prohibited in the section connecting to the SR-134 interchange where the project would operate.

**Walnut Street** – A City Connector with four lanes. Parking is limited in the section where the project would operate.

**Raymond Avenue** – A four-lane Access Street, with parking allowed.

**St. John Street** – A four-lane City Connector with parking allowed along one side.

**Hill Avenue** – A four-lane City Connector with limited parking allowed.



## 4.3 BICYCLE FACILITIES

This section identifies existing and planned bicycle facilities within the Project Area. This includes bicycle facilities that could be affected along the alignment of the Proposed Project and Route Options and near stations. Bicycle facilities are categorized into four types, as described below.

- Class I Bikeway (Bike Path): Also known as a shared path or multi-use path, a bicycle path is a paved right-of-way for bicycle travel that is separate from any street or highway.
- Class II Bikeway (Bike Lane): A striped and stenciled lane for one-way bicycle travel on a street or highway. This facility could include a striped or painted buffer space between the bicycle lane and vehicle lane, and the bicycle lane could be adjacent to on-street parking.
- Class III Bikeway (Bike Route): A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be designated using a shared-lane marking (sharrow).
- Class IV Bikeway (Separated Bike Lane): A bikeway for the exclusive use of bicycles including a separation between the bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

The existing bicycle network varies across the Project Area, depending on the roadway lane configurations, right-of-way and density of uses. The existing bicycle network in the study area consists of a network of existing and proposed Class I, II, III, and IV bicycle facilities (additional bicycle facilities are also planned by each city within the study area).

Next, the bicycle networks are qualitatively discussed throughout the project area along the Proposed Project and Route Options.

### 4.3.1 North Hollywood (City of Los Angeles)

- Along Chandler Boulevard, there are Class I facilities to the east of the Proposed Project and Class I (Fair Avenue to Vineland Avenue) and Class II (Lankershim Boulevard to Vineland Avenue) facilities along the Proposed Project route.
- Vineland Avenue has Class II bicycle lanes on both sides of the street. The Class II bicycle lanes continue south to Ventura Boulevard near Studio City.
  - Route Option A2 – No bicycle facilities are provided along Lankershim Boulevard.
- Along Riverside Drive to the eastbound SR-134 on-ramp, there are no bicycle facilities.

### 4.3.2 City of Burbank

- There are parallel Class II bicycle lanes on nearby streets (e.g., Alameda Avenue and Verdugo Avenue).
- At the Burbank-Downtown Metrolink Station, bicyclists can travel along a Class II bicycle lane to access a Class I facility on Front Street which connects to Class I facilities along Chandler Boulevard and San Fernando Boulevard.
- Within Downtown Burbank, there are nearby Class II bicycle lanes along 3<sup>rd</sup> Street and to the southeast along Glenoaks Boulevard.
- Along Glenoaks Boulevard, Class II bicycle lanes are provided southeast of Alameda Avenue.

### 4.3.3 City of Glendale

- Class II bicycle lanes are provided along Glenoaks Boulevard from Alameda Avenue to Pacific Avenue, where the facility transitions to a Class III bicycle route in the eastbound direction.
- Central Avenue has Class II bicycle lanes between Doran Street and Wilson Avenue.
  - Route Option E1 – Broadway provides a Class III route (sharrows) from Central Avenue to Harvey Drive.
  - Route Option E2 – Class III routes (sharrows) are provided nearby on parallel streets to Colorado Street, including Harvard Street, and intersecting routes, including Chevy Chase Drive.
  - Route Option E3 – There are no bicycle facilities along the SR-134. On Harvey Drive, there are nearby connections to Class III routes along Broadway and a Class II bicycle lane along Colorado Boulevard.

### 4.3.4 Eagle Rock (City of Los Angeles)

- Colorado Boulevard currently has Class II bicycle lanes between Eagledale Avenue and Figueroa Street. The bicycle lanes are buffered from the adjacent vehicular travel lane in both directions from Sierra Villa Drive to Dahlia Drive. The bicycle lanes are buffered only in the eastbound direction to the east of the Eagle Vista Drive/Mount Helena Avenue intersection. On the approach to intersections, the Class II buffered bicycle lanes end and transition to a zone shared by bicyclists and right-turning vehicles.
  - Route Option F3 – On the SR-134, there are no bicycle facilities.

### 4.3.5 City of Pasadena

- Corson Street currently has Class II bicycle lanes; however, near the Fair Oaks Avenue/SR-134 off-ramp, this bicycle lane transitions to a Class III route.
- On Fair Oaks Avenue north of the SR-134, there is a Class II bicycle lane. There are Class III bicycle routes near the interchange.

- There are Class III bicycle routes near the Project's proposed station area at Raymond Avenue/Holly Street, including Marengo Avenue, Los Robles Avenue, Union Street and Cordova Street.
- There are no bicycle facilities on Colorado Boulevard within the Proposed Project's route, but there are parallel Class II facilities along Maple Street and Corson Street. There is also an approved plan for a Class II buffered bicycle lane on Colorado Boulevard between Holliston Avenue and the city limits to the east.<sup>1</sup>
- Union Street has an approved plan for a 2-way cycle track along the south curb between Arroyo Parkway and Hill Avenue. The cycle track project would displace traffic lanes and remove on-street parking along the south curb.
- Green Street is one-way (eastbound) street with no bicycle facilities, but there is a parallel Class III bicycle route/Class II bicycle lanes on Cordova Street.

## 4.4 PEDESTRIAN FACILITIES

This section identifies existing and planned pedestrian networks within the Proposed Project area. This includes an area of potential effect for sidewalks, crosswalks, and other pedestrian facilities along the alignment of the Proposed Project and Route Options and near the proposed stations.

The existing pedestrian network varies across the Project Area, depending on the roadway right-of-way, lane configurations, and density of adjacent land uses. In general, the entire roadway network is considered open to pedestrians, either on sidewalks or road shoulders, except for locations where no shoulder exists. The existing pedestrian network is generally fully built.

Next, the pedestrian networks are qualitatively discussed throughout the Project Area along the Proposed Project and Route Options.

### 4.4.1 North Hollywood District (City of Los Angeles)

- Along Chandler Boulevard, in addition to sidewalks there is a multi-use trail between Fair Avenue and Vineland Avenue.
  - Route Option A2 – Lankershim Boulevard has sidewalks on both sides of the street. Pedestrian crossings are provided at signalized intersections.
- Along Riverside Drive there are sidewalks and crosswalks at the intersection of Riverside Drive/Lankershim Boulevard and at the eastbound SR-134 on-ramp.

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<sup>1</sup> Pasadena, *Bike Action Plan*, 2015.

#### 4.4.2 City of Burbank

- Pass Avenue, Riverside Drive and Olive Avenue have sidewalks on both sides of the street.
- Across the Metrolink rail corridor and Interstate 5 on Olive Avenue (connection to the Burbank-Downtown Metrolink Station), sidewalks are provided on both sides of the bridge as well as under the bridge with a direct at-grade connection to the Burbank Transit Center and the Burbank Bike Parking Center. A pedestrian ramp structure and an elevator are also provided from the bridge to the train station below.
- Within Downtown Burbank, Olive Avenue and San Fernando Boulevard have sidewalks on both sides of the street.
- Along Glenoaks Boulevard, sidewalks are provided on both sides of the street.

#### 4.4.3 City of Glendale

- Glenoaks Boulevard from the city limit to Pacific Avenue has sidewalks on both sides of the street with signalized off-set pedestrian crossings located at intersections. An existing landscaped median provides a buffer for crossings of Glenoaks Boulevard. Note that sidewalks are not provided from Pacific Avenue east to Central Avenue.
- Central Avenue has sidewalks and signalized crossings on both sides of the street in Downtown Glendale.
  - Route Option E1 – Sidewalks are provided on both sides of Broadway with a signalized mid-block crossing near Glendale High School.
  - Route Option E2 – Along Colorado Street, sidewalks are provided on both sides of the street with several striped mid-block and minor intersection pedestrian crossings.
  - Route Option E3 – Sidewalks are provided on both sides of Goode Avenue, Sanchez Drive, and Harvey Drive in the vicinity of SR-134.

#### 4.4.4 Eagle Rock (City of Los Angeles)

- Colorado Boulevard currently has sidewalks on both sides of the street. There are striped mid-block crossings at El Rio Avenue, Glen Iris Avenue, and Hermosa Avenue. Additional pedestrian crossings are provided at signalized intersections.
  - Route Option F3 – On SR-134, there are no pedestrian facilities. There are sidewalks and yellow striped crosswalks at the location of the proposed station at the intersection of Figueroa Street/Colorado Boulevard.

#### 4.4.5 City of Pasadena

- Sidewalks are provided along the Proposed Project route and on nearby streets including Corson Street, Fair Oaks Avenue, Raymond Avenue and Holly Street.
- Colorado Boulevard has a highly utilized pedestrian circulation system with “all pedestrian phase” signalized crossings at DeLacey Avenue and Raymond Avenue, as well as left-turn restrictions at intersections to increase pedestrian safety.
- Union Street is a one-way (westbound) street with sidewalks provided on both sides of the street.

- Green Street is a one-way (eastbound) street with sidewalks provided on both sides of the street.

## 4.5 EMERGENCY ACCESS

The following fire department stations are located in proximity to the Proposed Project and Route Options:

- Los Angeles Fire Department Station 60 – Located at the intersection of Chandler Boulevard and Tujunga Avenue.
- Los Angeles Fire Department Station 86 – Located at the intersection of Vineland Avenue and Whipple Street.
- Los Angeles Fire Department Station 42 – Located at the intersection of Colorado Boulevard and Maywood Avenue.
- Burbank Fire Department Station 15 – Located at the intersection of Verdugo Avenue and Beachwood Drive.
- Glendale Fire Station 27 – Located at the intersection of Glenoaks Boulevard and Western Avenue.
- Glendale Fire Station 26 – Located at the intersection of Brand Boulevard and Stocker Street.
- Glendale Fire Station 21 – Located at the intersection of Columbus Avenue and Oak Street.
- Pasadena Fire Department Station 39 – Located at the intersection of Avenue 64 and Melrose Alley.
- Pasadena Fire Department Station 31 – Located at the intersection of Fair Oaks Avenue and Dayton Street.
- Pasadena Fire Department Station 34 – Located at the intersection of Del Mar Boulevard and Holliston Avenue.

The following police stations are located in proximity to the Proposed Project and Route Options:

- North Hollywood Police Station - Located on Burbank Boulevard, west of Lankershim Boulevard.
- Burbank Police Station - Located at the intersection of North 3<sup>rd</sup> Street and Orange Grove Avenue.
- Glendale Police Department - Located on North Isabel Street, north of East Broadway.
- Pasadena Police Station - Located at the intersection of Garfield Avenue and Walnut Street.

The following medical emergency rooms are located in proximity to the Proposed Project and Route Options:

- Providence Saint Joseph Emergency Care - Located at the intersection of Alameda Avenue and Buena Vista Street.

## 5. Proposed Project BRT Configurations and Service

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### 5.1 DESCRIPTION OF PROPOSED PROJECT AND CONFIGURATIONS BY ROUTE SEGMENT

The Proposed Project extends approximately 18 miles from the western terminus at the North Hollywood Station, with connections to the Metro B Line (Red) and G Line (Orange), to the eastern terminus at PCC in Pasadena. **Figure 1** (see page 3) depicts the Proposed Project alignment along with Route Options. The following provides a detailed narrative description of the Proposed Project and the various Route Options, including proposed bus lane configurations and stations for each segment along with a summary of roadway modifications proposed to support the BRT service.

#### 5.1.1 Segment A – North Hollywood Community of the City of Los Angeles

This segment includes two potential alignments: (1) the Proposed Project - A1, which follows Chandler Boulevard to Vineland Avenue to Lankershim Boulevard to SR-134, and (2) Route Option A2, which follows Lankershim Boulevard directly to SR-134, as further described below.

##### Chandler-Vineland-Lankershim Route (Proposed Project - A1)

The route begins at the existing North Hollywood Station, with connections to the B/G Lines (Red/Orange) and would operate along Chandler Boulevard east of Lankershim Boulevard to Vineland Avenue, turn south at Vineland Avenue before transitioning to Lankershim Boulevard at the Vineland Avenue/Lankershim Boulevard/Camarillo Street intersection. The route continues south to access SR-134 at the Lankershim Boulevard interchange via Riverside Drive.

Along Chandler Boulevard buses would utilize a side-running bus lane created by restriping the roadway. Buffers may be added to the existing Class II bicycle lanes along Chandler Boulevard east of Fair Avenue, requiring replacing on-street parking along the north curb. Queue jumps would be provided for the BRT at the Chandler Boulevard/Vineland Avenue intersection to reduce conflicts with other traffic and to facilitate turns to and from Vineland Avenue.

Vineland Avenue would be reconstructed; the existing raised medians would be removed to accommodate new center-running bus lanes. The center-running bus lanes would extend to the Vineland Avenue/Lankershim Boulevard/Camarillo Street intersection and would transition into the center of Lankershim Boulevard. The center-running configuration would eliminate left-turns at unsignalized intersections. The bus lanes on Lankershim Boulevard would end at Kling Street, where a new traffic signal would provide a queue jump for southbound buses to exit the bus lane and weave to the outside lane approaching Riverside Drive. Eastbound buses would access SR-134 via the Riverside Drive on-ramp west of Lankershim Boulevard; westbound buses would exit SR-134 directly onto Lankershim Boulevard.



**Pedestrian and Bicycle Upgrades:** A station serving the NoHo Arts District would be located at Vineland Avenue/Hesby Street, about 600-feet east of Lankershim Boulevard. The station loading zones are located along islands to the outside of the bus lanes (accessible to buses with doors on the right side). The intersection would be signalized with a crosswalk serving the loading zones and allowing a signal-protected pedestrian access between the Arts District and other areas of North Hollywood located east of Vineland Avenue.

In conjunction with the reconstruction of Vineland Avenue, the existing Class II bicycle lanes would be upgraded to a buffered Class IV two-way cycle-track along the west curb. The cycle-track would extend south along Vineland Avenue through the Vineland Avenue / Lankershim Boulevard / Camarillo Street intersection south to Hortense Street, where a new pedestrian beacon and crosswalk would be provided to transition back to the existing Class II bicycle lanes extending further south.

**Parking Changes:**<sup>2</sup> There would be a net loss of about 100 out of 300 on-street parking spaces along Chandler Boulevard, Vineland Avenue and Lankershim Boulevard to provide buffered bicycle lanes, turn bays and to accommodate the BRT station. About 16 replacement on-street parking spaces would be added along Vineland Avenue north of Camarillo Street and about 30 on-street replacement spaces would be added along Vineland Avenue south of Camarillo Street. In addition, there is metered parking along the Vineland Place frontage road paralleling Vineland Avenue north of Camarillo Street.

#### Lankershim Boulevard Route Option (Route Option A2)

This route option follows Lankershim Boulevard from the North Hollywood Station directly to the SR-134 freeway interchange. The BRT service would operate in side-running bus lanes created by conversion of the outside southbound and northbound travel lanes from Chandler Boulevard to the vicinity of Huston Street. South of Huston Street, curb-running bus lanes extend to the SR-134 interchange, which would be added by replacing on-street parking and minor widening of the roadway (by means of a 1- to 2-foot narrowing of the sidewalk on each side of the street). In the northbound direction, a queue jump would be provided at Magnolia Boulevard to facilitate access to the left-turn lane at Chandler Boulevard and entry into the bus terminal at the North Hollywood Station.

A station serving the NoHo Arts District would be located at Hesby Street with a near-side northbound loading zone and a far-side southbound loading zone. The station loading zones would be developed with curb extensions to increase the pedestrian area for sidewalk circulation and station access.

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<sup>2</sup> Parking effects discussed in this section pertain to potential parking removals associated with implementation of bus lanes. In addition to such losses, there is a potential for an incidental removal of up to 5 stalls at each location where a station would be provided along a sidewalk, dependent upon the extent of existing no parking (red curb) zone. The number of stalls removed is subject to refinement during subsequent design phases.

With the conversion of the outside travel lanes to dedicated bus lanes to the north of Huston Street, nearly all the existing on-street parking would be retained except for loss of approximately four spaces in the vicinity of the BRT station at Hesby Street. South of Morrison Street, there would be a loss of about 70 on-street parking spaces, primarily immediately north of the Vineland Avenue/Lankershim Boulevard/Camarillo Street intersection and in the vicinity of the SR-134 interchange. There is metered on-street parking located along Vineland Place north of Camarillo Street, which is in close proximity of the Vineland Avenue/Lankershim Boulevard/Camarillo Street intersection.

### 5.1.2 Segment B – North Hollywood to Burbank

#### SR-134 (Proposed Project - B)

The Proposed Project route continues east along SR-134 from the Lankershim Boulevard interchange to the Burbank Media District. Eastbound buses would exit to Pass Avenue and continue in mixed-flow travel lanes via Pass Avenue and Riverside Drive to Olive Avenue. A short stretch of Riverside Drive east of Kenwood Avenue would be restriped to provide a curb-running bus lane approaching Olive Avenue. Westbound buses would turn from Olive Avenue to Hollywood Way and would operate in mixed-flow travel lanes north to Alameda Avenue to access the westbound SR-134 on-ramp east of Hollywood Way.

### 5.1.3 Segments C and D – City of Burbank

The BRT route follows Olive Avenue (Proposed Project Segment C) in the City of Burbank through the media district to downtown before turning onto Glenoaks Boulevard (Proposed Project Segment D).

#### Olive Avenue (Proposed Project - C)

The BRT service would operate in curb-running bus lanes along Olive Avenue, provided by restriping to replace existing on-street parking (about 500 spaces) along with minor roadway widening accomplished by slightly reducing the sidewalk width in constrained areas. West of Alameda Avenue, the roadway is 72-feet wide and could support bus lanes by restriping without the need for widening. East of Alameda Avenue, the roadway narrows to 68-feet at various locations and would be widened to 72 feet by expanding the roadway by about 2-feet on each side into the shoulder or sidewalk area. Right-turning vehicles would merge with the curb-running bus lane approaching each intersection and right-turns would be allowed from the curb-running bus lane. The proposed configuration retains two general purpose travel lanes along Olive Avenue except along the bridge over I-5 between Lake and 1<sup>st</sup> Streets, which would be restriped to convert the outside travel lane to a dedicated bus lane.

BRT stations would be provided along Olive Avenue at Riverside Drive, Alameda Avenue, Buena Vista Street, Verdugo Avenue (optional station), Front Street (on bridge at Burbank-Downtown Metrolink station), and San Fernando Boulevard. The stations would be integrated into the sidewalk area, which would be widened where feasible using a curb extension to facilitate access and pedestrian circulation. At the Burbank-Downtown Metrolink station, a new

traffic signal and crosswalk would be added on the bridge providing access to the existing vertical circulation elements (elevator and access ramp).

#### Glenoaks Boulevard (Proposed Project - D)

Curb-running bus lanes would be provided along Glenoaks Boulevard, requiring removal of existing parking (about 45 spaces) and minor widening, similar to Olive Avenue. Right-turns would be permitted from the curb-running bus lanes at intersections. A queue jump would be provided for westbound buses to make a left-turn from the right-turn bay on Glenoaks Boulevard to Olive Avenue. The BRT route continues southeast via Glenoaks Boulevard into Glendale. East of Providencia Avenue a median-running configuration would be provided by converting the inside travel lanes to bus-only operation. A queue jump would be provided for eastbound buses at Verdugo Avenue to facilitate transitioning across the roadway to the median-running bus lanes. Westbound buses would merge with traffic west of Providencia Avenue and would transition to a curb-running bus lane approaching Verdugo Avenue.

#### 5.1.4 Segments D and E – City of Glendale

Glendale includes Segment D along Glenoaks Boulevard and Segment E, which includes three alignment options: E1, the Proposed Project, which is routed via Central Avenue and Broadway; Route Option E2, which is routed via Central Avenue and Colorado Street; and Route Option E3, which follows SR-134.

#### Glenoaks Boulevard (Proposed Project - D)

The route continues southeast in median-running bus lanes along Glenoaks Boulevard through the northwestern portion of the City of Glendale to Central Avenue, north of the downtown. Dedicated median-running bus lanes would be developed along Glenoaks Boulevard by restriping the inside lane for bus-only use. At major intersections along Glenoaks Boulevard, the existing landscaped median would be modified to accommodate left-turn bays. Far-side BRT stations with loading zones to the outside of the bus lanes (for loading on the right side of the buses), which are accessible by signalized crosswalks, would be provided opposite the left-turn bays at the following locations: Alameda Avenue, Western Avenue, Grandview Avenue (optional station), and Pacific Avenue. With conversion of the inside travel lane, there would be no loss of on-street parking along Glenoaks Boulevard. The existing bicycle lanes along this section would also be retained.

#### Central Avenue (Proposed Project - E1)

The BRT route turns south towards Downtown Glendale from the intersection of Glenoaks Boulevard/Central Avenue. Buses would operate in mixed-flow travel lanes along Central Avenue through the SR-134 interchange area. Dedicated bus lanes would be provided south of Sanchez Drive by converting the outside lane to bus-only, with right-turns allowed from the bus lane. The bus lanes would be side-running adjacent to the existing Class II bicycle lanes, which extend from Doran Street south to Wilson Avenue. A BRT station would be provided at Lexington Drive, where a pair of far-side loading zones would be constructed using a curb

extension along the sidewalk to facilitate pedestrian access and circulation. Further, the BRT station on Lexington Drive would accommodate a bicycle bypass lane between the station loading area and sidewalk.

### Broadway (Proposed Project - E1)

The BRT route turns from Central Avenue and follows Broadway to Harvey Drive. Dedicated side-running bus lanes would be provided along Broadway by converting the outside lane to bus-only, although right turns would be allowed from the bus lanes. The side-running bus lanes would run alongside the on-street parking lane, which would remain with the possible loss of a few parking spaces at each BRT station. Far-side BRT stations would be provided along the sidewalk at Brand Boulevard, Glendale Avenue and Verdugo Road, with curb extensions where feasible. The existing Class III bicycle “sharrows” would be removed; however, bicycles would be allowed to use the bus lanes. At Harvey Drive, the BRT service turns onto W. Broadway heading into the Eagle Rock community of the City of Los Angeles.

### Colorado Street (Route Option E2)

This route option would also operate in dedicated bus lanes in a side-running configuration along Central Avenue south of Sanchez Drive. Rather than turning at Broadway, the BRT would continue further south to Colorado Street. The BRT route would follow Colorado Street which transitions to Colorado Boulevard approaching the Los Angeles city limit near SR-2. Dedicated curb- and side-running bus lanes would be provided along Colorado Street by converting the outside lane. Between Central Avenue and Brand Boulevard, where no on-street parking exists, the curb lane would be converted to bus-and-right-turn only. East of Brand Boulevard, the outside travel lane would be converted to a side-running bus-only lane and the existing on-street parking and curb extensions would be retained. The route continues east to the Glendale border, where buses would operate in mixed-flow travel lanes approaching and through the SR-2 interchange area and heading into the Eagle Rock community of Los Angeles. There would be stations along Central Avenue at Lexington Drive and Americana Way. Along Colorado Street, there would be three stations at: Brand Boulevard, Glendale Avenue, and Verdugo Road. All stations would have far-side loading zones along the sidewalk, which would be widened with curb extensions where feasible.

### SR-134 (Route Option E3)

Route Option E3 utilizes the SR-134 freeway between Brand Boulevard and Harvey Drive. The BRT service would operate in mixed-flow along the frontage road couplet – Sanchez Drive (eastbound) and Goode Avenue (westbound) – to access the SR-134 ramps at Brand Boulevard. The BRT service continues along the SR-134 freeway to the Harvey Drive interchange where buses would either continue east along the freeway or would exit to serve the Eagle Rock community. If the route were to continue along the SR-134 freeway, a station would be provided at Harvey Drive. Loading zones would be located along the shoulder area of the eastbound off-ramp (where there is an existing bus stop) and westbound on-ramp (where a new station would be added along the shoulder).

### 5.1.5 Segment F – Eagle Rock Community of the City of Los Angeles

This segment includes Proposed Project - F2, which would provide side-running bus lanes along Colorado Boulevard; Route Option F1, which is a hybrid side-and-center-running configuration option along Colorado Boulevard; and Route Option F3 along SR-134 to Figueroa Street and Colorado Boulevard.

#### Colorado Boulevard Hybrid Side-and-Center Running (Route Option F1)

This configuration would provide side-running bus lanes along Colorado Boulevard extending from the W. Broadway/Colorado Boulevard intersection transitioning to a center-running configuration east of Ellenwood Drive. The center-running configuration would replace the existing median along Colorado Boulevard and allow left-turns primarily at signalized intersections. The center-running configuration would extend to Dahlia Drive; between Dahlia Drive and the SR-134 Freeway ramps there would be an eastbound center-running bus lane, whereas westbound buses would operate in mixed-flow traffic. There would be three stations serving Eagle Rock: Eagle Rock Plaza (near Sierra Villa Drive), Eagle Rock Boulevard, and Townsend Avenue. The stations at Eagle Rock Boulevard and Townsend Avenue would be built on loading islands in the center of the street accessible by signalized crosswalks. In addition to replacing the existing striped and raised median with center-running bus lanes, this alternative configuration would result in the loss of approximately 50 percent of the existing on-street parking along Colorado Boulevard and would require removal and/or modification of most of the Active Transportation Program improvements being implemented by the City of Los Angeles.

#### Colorado Boulevard Side-Running (Proposed Project - F2)

The BRT service would operate through the Eagle Rock community of Los Angeles along Colorado Boulevard, connecting from W. Broadway or Colorado Street in Glendale. The Proposed Project configuration would provide dedicated side-running bus lanes east of the Colorado Boulevard/W. Broadway intersection extending approximately 1.5 miles to Loleta Avenue in the eastbound direction and Dahlia Drive in the westbound direction. With this configuration the existing buffered bicycle lanes would be converted to 12-foot shared bus-and-bicycle lanes. When cyclists are using the shared bus-and-bicycle lanes, buses would maneuver into the mixed-flow travel lanes to overtake cyclists. Eastbound buses would operate in mixed-flow travel lanes between Loleta and the SR-134 ramps and would continue via SR-134 to Pasadena. Westbound buses would operate in mixed-flow travel lanes from the SR-134 ramps to Dahlia Drive before transitioning into dedicated bus lanes. Right-turning vehicles would merge into the bus-and-bicycle lanes approaching intersections and would turn from the bus-and-bicycle lanes. There would be three stations serving Eagle Rock: Eagle Rock Plaza (near Sierra Villa Drive), Eagle Rock Boulevard, and Townsend Avenue. The stations would utilize curb extensions to accommodate station elements while maintaining adequate sidewalk width for pedestrian circulation and access to adjacent buildings. A bicycle bypass lane would be provided behind the stations to avoid bus-bicycle conflicts in the loading zone. This configuration would retain the existing painted and raised-landscaped medians along Colorado Boulevard and most of the on-street parking (a few spaces would be removed at station

locations). Curb extensions proposed as part of the Active Transportation Program project being implemented by the City of Los Angeles would be retained.

#### SR-134 (Route Option F3)

This route option bypasses the heart of the Eagle Rock district by extending the BRT service east along SR-134 between the Harvey Drive interchange in Glendale and the Figueroa Street interchange. The BRT service would operate along Figueroa Street to a station at the Colorado Boulevard/Figueroa Street intersection, before continuing east via Colorado Boulevard to re-join the SR-134 freeway at the North San Rafael Avenue interchange. Buses would operate in mixed-flow traffic throughout this segment.

### 5.1.6 Segments G and H – City of Pasadena

Buses would operate in mixed-flow traffic in existing travel lanes throughout the City of Pasadena extending to the route's terminus at PCC near the Colorado Boulevard/Hill Avenue intersection. There are two segments in Pasadena, each of which include the Proposed Project and one Route Option. Because the BRT service would operate in existing travel lanes, parking impacts would be limited to several on-street spaces per station, where red curb zones may need to be lengthened to accommodate the BRT stations and stops for other bus services.

#### Fair Oaks Interchange (Proposed Project - G1)

The BRT route exits SR-134 at the Fair Oaks Avenue interchange and operates via Fair Oaks Avenue, Walnut Street and Raymond Avenue to either Colorado Boulevard or the Union Street/Green Street one-way couplet. A station serving the Metro L Line (Gold) would be provided along Raymond Avenue at Holly Street, adjacent to the Memorial Park Station.

#### Colorado Boulevard Interchange Route Option (Route Option G2)

This route option uses the Colorado Boulevard interchange, rather than the Fair Oaks Avenue interchange, to access Pasadena from SR-134. Buses would proceed along Colorado Boulevard to the eastern terminus at PCC or would transition via St. John Street to the Union Street/Green Street one-way couplet.

#### Colorado Boulevard (Proposed Project - H1)

The BRT service would operate via Colorado Boulevard to the route's eastern terminus at PCC. Stations would be provided at Los Robles Avenue (with Proposed Project - G1) or Arroyo Parkway (with Route Option G2), as well as at Lake Avenue and Hill Avenue. An on-street bus layover zone and station would be provided along Hill Avenue south of Colorado Boulevard.

#### Green Street – Union Street One-Way Couplet (Route Option H2)

Under this Route Option, buses would operate eastbound along Green Street then northbound via Hill Avenue to the route's eastern terminus at PCC, before returning westbound along Union Street. Station pairs would be provided at Los Robles Avenue (with Proposed Project - G1) or



Arroyo Parkway (with Route Option G2), as well as at Lake Avenue. The terminal station and layover zone would be located along the east curb of Hill Avenue south of Colorado Boulevard.

## 5.2 DESCRIPTION OF PROPOSED OPERATIONS

This section details the service plan developed for the Proposed Project's BRT route.

### 5.2.1 BRT Service Characteristics

The service span and frequency for the Proposed Project's BRT service are detailed in **Table 3** and **Table 4**. Service frequencies are subject to review and refinement as ridership forecasting for the Proposed Project is advanced. The service span presented for the Proposed Project in **Table 3** is consistent with the Metro B Line (Red), with 21 hours of service per day Sunday through Thursday and longer hours on Fridays and Saturdays.

### 5.2.2 Supporting Services & Proposed Adjustments

The Proposed Project would often complement the comprehensive network of underlying transit services, as the proposed BRT stations would frequently provide improved connections with other transit services. Analogously, based on overlapping service provided by the Proposed Project, adjustments to Metro's baseline NextGen service redesign may be warranted for one or two bus routes including:

- Metro 501 should be evaluated to be modified or discontinued, since this route that connects North Hollywood with Pasadena largely serves the same corridor as the Proposed Project. Further analysis should be conducted to determine whether changes should be made to this route.  
Metro 180 which connects Hollywood with Pasadena could be split into two patterns in the vicinity of Downtown Glendale to reduce duplication with the service provided by the Proposed Project. The full route (i.e. long pattern from La Cienega/Jefferson E Line (Expo) Station to Pasadena) could provide 15-minute service on weekdays. A truncated route (i.e. short pattern) from the La Cienega/Jefferson E Line (Expo) Station to the vicinity of Downtown Glendale could also provide 15-minute on weekdays. Implementation of these two weekday patterns would provide 7.5-minute service frequency from Glendale to La Cienega/Jefferson E Line (Expo) Station and 15-minute service frequency between Glendale and Pasadena in the segment where the Metro 180 overlaps with the Proposed Project's BRT service. The combination of the Metro 180 and the Proposed Project's BRT service would provide 7.5-minute service frequency between Downtown Glendale and Pasadena.



**Table 3 – Proposed Project BRT Service Span**

	Early	AM Peak	Midday	PM Peak	Evening	Late Night	Owl
Monday -Thursday	4:00 a.m. - 6:00 a.m.	6:00 a.m. - - 9:00 a.m.	9:00 a.m. - 3:00 p.m.	3:00 p.m. - 7:00 p.m.	7:00 p.m. - 9:00 p.m.	9:00 p.m. - 12:00 a.m.	12:00 a.m. - 1:00 a.m.
Friday	4:00 a.m. - 6:00 a.m.	6:00 a.m. - 9:00 a.m.	9:00 a.m. - 3:00 p.m.	3:00 p.m. - 7:00 p.m.	7:00 p.m. - 9:00 p.m.	9:00 p.m. - 12:00 a.m.	12:00 a.m. - 3:00 a.m.
Saturday	4:00 a.m. - 6:00 a.m.	6:00 a.m. - 9:00 a.m.	9:00 a.m. - 3:00 p.m.	3:00 p.m. - 7:00 p.m.	7:00 p.m. - 9:00 p.m.	9:00 p.m. - 12:00 a.m.	12:00 a.m. - 3:00 a.m.
Sunday/Holiday	4:00 a.m. - 6:00 a.m.	6:00 a.m. - - 9:00 a.m.	9:00 a.m. - 3:00 p.m.	3:00 p.m. - 7:00 p.m.	7:00 p.m. - 9:00 p.m.	9:00 p.m. - 12:00 a.m.	12:00 a.m. - 1:00 a.m.

**Table 4 – Proposed Project BRT Service Frequencies**

	Early	AM Peak	Midday	PM Peak	Evening	Late Night	Owl
Monday-Thursday	20 minutes	10 minutes	10 minutes	10 minutes	15 minutes	20 minutes	20 minutes
Friday	20 minutes	10 minutes	10 minutes	10 minutes	15 minutes	20 minutes	20 minutes
Saturday	30 minutes	15 minutes	15 minutes	15 minutes	15 minutes	30 minutes	30 minutes
Sunday/Holiday	30 minutes	15 minutes	15 minutes	15 minutes	15 minutes	30 minutes	30 minutes

## 6. Significance Thresholds and Methodology

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### 6.1 SIGNIFICANCE THRESHOLDS & METHODOLOGY

#### 6.1.1 State CEQA Guidelines

In accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would have a significant impact related to Transportation if it would:

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d) Result in inadequate emergency access?

#### 6.1.2 Transit

##### Threshold

No State or local thresholds are available for determining the significance of impacts to transit service.

##### Methodology

Future transit ridership was established through a forecasting analysis utilizing the Metro's Corridors Based Model 18 (CBM18) to estimate ridership for the Project. The model was previously developed by Metro but was calibrated for this Project. The model considers current travel patterns and applies future transit service changes to the network including from the Project to forecast trips by mode and estimate boardings.

The project team updated the CBM18 for the No Project Scenario (without the Proposed Project) to reflect other transit network changes expected in the year 2042, such as the Vermont Corridor BRT and the North San Fernando Valley (NSFV) BRT. The NSFV BRT would connect with the Proposed Project at the North Hollywood Station. Further, Metro's NextGen service redesign is used as the baseline condition for Metro transit service, as it is expected to begin implementation in December 2020. The project team made an additional change to the CBM18 for the 2042 No Project Scenario to provide consistency across corridors:

- Changed peak and off-peak university trip tables to better reflect the locations of California State University Northridge (CSUN) and California Institute of Technology (Caltech).

The ridership analysis estimated total boardings for the Proposed Project and net new boardings for the Metro system. Also, changes to the underlying No Project Scenario transit network were identified for the Proposed Project and each Route Option.

### 6.1.3 Traffic

The thresholds and methodologies developed to determine potential transportation impacts with respect to traffic are described in this section.

Section 15064.3 of the CEQA Guidelines provides for the application of VMT, instead of level-of-service and other measures of traffic flow, to evaluate the transportation impacts of transit projects. Beginning on July 1, 2020, the provisions of this section shall apply statewide, under CEQA.

VMT provides a metric for determining vehicle trip changes across the study area roadway network. VMT is a measure of the total amount of travel in miles by all vehicles on the entire roadway network during a certain period. Reductions to VMT are beneficial because fewer cumulative vehicle miles are being generated daily as a result of a particular alternative.

#### Threshold

Based on the new CEQA Guidelines, the presumption of a less-than-significant impact suggests that a detailed VMT analysis is not required for the "Project." The Governor's Office of Planning and Research (OPR) issued a "Technical Advisory on Evaluating Transportation Impacts" (December 2018). It includes a specific directive that:

*Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing greenhouse gas (GHG), increasing multimodal transportation networks, and facilitating mixed use development.*

Lead agencies have discretion to choose a threshold of significance for transportation projects. Public Resources Code Section 21099, subdivision (b)(1), provides criteria for determining the significance for transportation impacts. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

OPR recommends the effect of a transportation project on vehicle travel should be estimated using the change in total VMT. The assessment of total VMT without the project and an assessment with the project should be made; the difference between the two is the amount of VMT attributable to the project. The assessment should cover the full area in which driving patterns are expected to change.

The City of Los Angeles has updated their CEQA Guidelines to comply with SB 743. Section 2.3 of the LADOT Transportation Assessment Guidelines provides screening criteria, impact criteria, and a method for determining if a transportation project would induce additional vehicle miles traveled. LADOT believes transit and active transportation projects that reduce roadway capacity generally reduce VMT and are presumed to cause a less-than-significant impact on transportation. LADOT does not require an induced travel analysis for transit projects and roadway capacity reducing projects.

Burbank administratively adopted the OPR guidelines.

Glendale has yet to develop their own transportation analysis guidelines.

The City of Pasadena's Transportation Impact Analysis Guidelines does not provide impact criteria or methodology for transportation projects.

### Methodology

The Corridors Based Model 18 was used to evaluate the effect that the Proposed Project would have on VMT. Since this Proposed Project spans multiple cities, the analysis compares VMT for the 2042 Baseline Scenario and Proposed Project Scenarios at the regional level to determine the amount of VMT attributable to the Proposed Project. The Corridors Based Model 18 is a validated model that captures the regional traffic flow pattern and transit ridership and is appropriate for this type of regional transit project. In addition to the 2042 Baseline analysis, a separate assessment of existing VMT conditions was conducted by calibrating the model for 2017 conditions which allowed for an analysis of Existing Conditions (Year 2017) and the effect of the Proposed Project upon existing regional VMT.

### 6.1.4 Bicycle and Pedestrian Facilities

The thresholds and methodologies applied to determine potential transportation impacts with respect to bicycle and pedestrian circulation are described in this section.

#### Thresholds

Pedestrian and bicycle circulation were evaluated as part of this transportation analysis. The State CEQA Guidelines do not describe specific significance thresholds for bicycle and pedestrian facilities; however, Appendix G of the State CEQA guidelines lists a variety of potentially significant effects which can be used as guidance in developing thresholds for determining impact significance for bicycle and pedestrian facilities. According to Appendix G, a project could have a significant transportation impact with respect to bicycle and pedestrian circulation, if it would:

- 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, highway and freeways, pedestrian and bicycle paths, and mass transit;

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

## Methodology

Existing and planned pedestrian and bicycle facilities were obtained from the 2016 Metro Active Transportation Specific Plan<sup>3</sup> and local municipal plans listed in Section 3.4. Bicycle facility and bicycle route conditions and potential conflict locations along the Proposed Project and Route Options were observed through field surveys. The methodology for assessing impacts involves a qualitative assessment to evaluate any potential impacts to existing or planned pedestrian or bicycle facilities along the corridor and near each proposed BRT station. If the Proposed Project removes an existing or planned pedestrian and/or bicycle facility without a remedy that is consistent within a program, plan, ordinance or policy, the impact would be described, and mitigation measures would be identified.

### ***Hazards Due to Geometric Design Features or Incompatible Use***

The State CEQA Guidelines do not describe specific significance thresholds for geometric design features or incompatible use, therefore the evaluation is made based upon conformity of the Proposed Project to applicable local design standards and allowable uses. Examples of hazards in geometric design would include lane mis-matches across intersections, lane drops with inadequate distance for merging, or sight distance restrictions due to curves or grades ahead of conflict points. Examples of incompatible use would include improper mixing of modes, such as routing truck traffic on local roadways.

### ***Emergency Access***

The State CEQA Guidelines do not provide quantitative thresholds for emergency access. geometric design features or incompatible use, therefore the evaluation is made based upon the potential of the Proposed Project to substantially degrade emergency access, for example, requiring emergency vehicles to re-route or perform out-of-direction maneuvers adding minutes or more of travel time as a result of changes to the roadway configuration.

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<sup>3</sup> Metro, 2016. *Active Transportation Strategic Plan.*, <https://www.dropbox.com/s/wjsbprvwlva6gr/ATSP%20Volume%20I,%20II,III.pdf?dl=0>, accessed on March 16, 2020.

## 7. Impact Analysis

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The following section includes the impact analysis, mitigation measures (if necessary), and significance of impacts after mitigation measures (if applicable). The potential for the Proposed Project to result in an impact to transportation is dependent upon the specific alignment and Project components. The following impact conclusions are valid for the Proposed Project and all route variations, treatments, and configurations.

**Impact a)**      Would the Proposed Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Proposed Project was developed to improve mobility and regional transit system access while supporting community plans and transit-oriented development goals. The Project was developed to align with applicable plans, ordinances, and policies related to transportation at the regional and local jurisdiction level for the City of Los Angeles, City of Burbank, City of Glendale, and the City of Pasadena.

### Impact A – Transit

The Proposed Project was reviewed with respect to transit for consistency with applicable plans, ordinances, and policies related to transportation at the local jurisdiction level for the City of Los Angeles, City of Burbank, City of Glendale, and the City of Pasadena.

#### City of Los Angeles Mobility Plan 2035

The Proposed Project is consistent with several policies of the City of Los Angeles Mobility Plan including:

- **Policy 1.2 Complete Streets:** Implement a balanced transportation system on all streets, tunnels, and bridges using complete streets principles to ensure the safety and mobility of all users.
- **Policy 2.5 Transit Network:** Improve the performance and reliability of existing and future bus service.
- **Policy 3.7 Regional Transit Connections:** Improve transit access and service to major regional destinations, job centers, and inter-modal facilities.
- **Policy 5.1 Sustainable Transportation:** Encourage the development of a sustainable transportation system that promotes environmental and public health.

#### City of Burbank Media District Specific Plan

The Proposed Project is consistent with several transportation goals of the Burbank Media District Specific Plan including:

- Promote car/van pools, ridesharing, flex time, public transportation improvements and other transportation systems management strategies which reduce traffic, particularly in the peak commuting hours.
- Implement express bus service on the Ventura Freeway which connects the west San Fernando Valley with the Media District, Glendale, and Pasadena.

#### City of Burbank's General Plan

The Proposed Project is consistent with several transportation goals of the Burbank General Plan including:

- **Policy 1.1:** Consider economic growth, transportation demands, and neighborhood character in developing a comprehensive transportation system that meets Burbank's needs.
- **Policy 2.1:** Improve Burbank's alternative transportation access to local and regional destinations through land use decisions that support multimodal transportation.
- **Policy 2.3:** Prioritize investments in transportation projects and programs that support viable alternatives to automobile use.
- **Policy 2.4:** Require new projects to contribute to the city's transit and/or non-motorized transportation network in proportion to its expected traffic generation.
- **Policy 3.2:** Complete city streets by providing facilities for all transportation modes.
- **Policy 3.3:** Provide attractive, safe street designs that improve transit, bicycle, pedestrian, and equestrian connections between homes and other destinations.
- **Policy 3.5:** Design street improvements so they preserve opportunities to maintain or expand bicycle, pedestrian, and transit systems.
- **Policy 4.1:** Ensure that local transit service is reliable, safe, and provides high-quality service to major employment centers, shopping districts, regional transit centers, and residential areas.
- **Policy 4.4:** Advocate for improved regional bus transit, bus rapid transit, light rail, or heavy rail services linking Burbank's employment and residential centers to the rest of the region.
- **Policy 4.5:** Improve transit connections with nearby communities and connections to Downtown Los Angeles, West San Fernando Valley, Hollywood, and the Westside.
- **Policy 4.7:** Integrate transit nodes and connection points with adjacent land uses and public pedestrian spaces to make them more convenient to transit users.



- **Policy 4.8:** Promote multimodal transit centers and stops to encourage seamless connections between local and regional transit systems, pedestrian and bicycle networks, and commercial and employment centers.

#### City of Glendale Circulation Element of the General Plan

The Proposed Project is consistent with transportation goals of the Glendale Circulation Element including:

- Reasonable access to services and goods in Glendale by a variety of transportation modes.

#### City of Glendale Downtown Specific Plan

The Proposed Project is consistent with policies of the Glendale Downtown Specific Plan including:

- **Policy 6.1.2.C:** Make street and transit stop improvements to facilitate the safety, attractiveness and convenience of transit use. This might include transit improvements to designated transit-priority streets to keep buses moving, upgrades to transit stops to include amenities such as weather protection, and real time trip information, and other improvements.
- **Policy 6.1.3.A:** Increase transportation choices by providing viable alternatives to exclusive reliance on the auto for Downtown residents and visitors.

#### City of Pasadena Mobility Element of the General Plan

The Proposed Project is consistent with policies of the Mobility Element of the Pasadena General Plan including:

- **Policy 2.1:** Continue to support the construction of the Gold Line Foothill Extension transit service and the expansion and use of regional and local bus transit service.

### Construction

**Less-Than-Significant Impact with Mitigation.** The Proposed Project would result in construction effects like those experienced for a typical roadway project. These construction effects could include inconveniences associated with temporary disruptions to existing travel patterns and temporary access limitations. Construction of the Proposed Project would occur in phases and within separate work zones. Construction activities would shift along the corridor so that overall construction activities should be of relatively short duration within each segment.

During the construction of the Proposed Project, it may be necessary to temporarily relocate existing bus stops while construction is active in the area. In addition, buses may temporarily experience delays and increases in travel time when traveling through construction zones with temporary lane closures. Because of the temporary duration of these effects, the construction impacts on transit are less-than significant with mitigation.

A Traffic Management Plan would be required to mitigate impacts to transit circulation and access. A Traffic Management Plan is a document that details the way activities in the road corridor will be carried out, so they minimize inconvenience and help ensure road users and workers remain as safe as possible. Therefore, without mitigation, the Proposed Project would result in a significant impact on transit related to construction activities.

## Operations

**Less-Than-Significant Impact.** Table 5 presents estimated ridership forecasts for 2042, including overall transit trips and boardings for the region and the Proposed Project, respectively. The transit trips reflect how many travelers are choosing to ride transit from their origin to their destination. Boardings account for each time a traveler accesses a route, which includes transfers. The Proposed Project is forecast to increase the total new transit trips in the region by 16,149 and the total new Metro boardings by 33,141. In addition, the Proposed Project is forecast to attract 34,950 weekday boardings in 2042. In summary, the operations of the Proposed Project would provide a benefit to transit in the corridor with increased service frequency and ridership. Therefore, the Proposed Project would result in a less-than-significant impact on transit operations.

**Table 5 – 2042 Weekday Person Trips and Boardings Summary**

	2042 Baseline	Proposed Project
Total Person Trips	77,652,996	
Transit Trips	1,710,355	1,726,504
Change in Transit Trips	N/A	16,149
Total Metro Boardings	2,222,499	2,255,640
Change in Metro Boardings	N/A	33,141
Project Boardings	N/A	34,950

## Impact A – Roadway

The Project was reviewed with respect to roadway elements for consistency with applicable plans, ordinances, and policies related to transportation at the local jurisdiction level for the City of Los Angeles, City of Burbank, City of Glendale, and the City of Pasadena.

### City of Los Angeles Mobility Plan 2035

The Proposed Project is consistent with several policies of the City of Los Angeles Mobility Plan including:

- **Policy 1.2 Complete Streets:** Implement a balanced transportation system on all streets, tunnels, and bridges using complete streets principles to ensure the safety and mobility of all users.
- **Policy 2.9 Multiple Networks:** Consider the role of each enhanced network when designing a street that includes multiple modes.

- **Policy 5.2 VMT:** Support ways to reduce VMT per capita.

#### City of Burbank Media District Specific Plan

The Proposed Project is consistent with recommendations and goals of the Burbank Media District Specific Plan including:

- General operation improvements throughout the Media District should include the removal of on-street parking (when and where necessary).

#### City of Burbank Center Plan

The Proposed Project is consistent with recommendations and goals of the Burbank Center Plan including:

- Widen Glenoaks Boulevard to six lanes, as the Proposed Project would add two dedicated bus lanes to provide a total of six lanes on Glenoaks Boulevard.

#### City of Burbank's General Plan

The Proposed Project is consistent with several transportation goals of the Burbank General Plan including:

- **Policy 1.2:** Recognize that Burbank is a built-out city and wholesale changes to street rights-of-way are infeasible.
- **Policy 1.3:** Maintain and enhance the city's traditional street and alleyway grid network.
- **Policy 3.2:** Complete city streets by providing facilities for all transportation modes.
- **Policy 3.3:** Provide attractive, safe street designs that improve transit, bicycle, pedestrian, and equestrian connections between homes and other destinations.
- **Policy 3.4:** All street improvements should be implemented within the existing right-of-way. Consider street widening and right-of-way acquisition as methods of last resort.
- **Policy 3.5:** Design street improvements so they preserve opportunities to maintain or expand bicycle, pedestrian, and transit systems.

#### City of Glendale Downtown Specific Plan

The Proposed Project is consistent with policies of the Glendale Downtown Specific Plan including:

- Maintain acceptable levels of local circulation in the Downtown Specific Plan area and adjacent neighborhoods and good connections with the regional circulation network for both transit and personal/commercial vehicles.
- Balance the needs of different modes of transportation as they compete for limited space on Glendale streets. Parts of both Central Avenue and Colorado Street are major bus routes for regional service such as Metro buses which would require balancing. Balancing the needs of different modes of transportation as they compete for limited space on Glendale streets is crucial. Per the Downtown Specific Plan, this

new street classification should establish a rational, practical method of compromise whereby the net gain for the community can be maximized while the net impact on different modes and context can be minimized. Providing dedicated bus lanes for the Proposed Project's BRT service is consistent with balancing the needs for public transportation.

#### City of Pasadena Mobility Element of the General Plan

The Proposed Project is consistent with policies of the Mobility Element of the Pasadena General Plan:

- **Policy 1.7:** Design streets to achieve safe interaction for all modes of travel particularly for pedestrians and bicycle users
- **Policy 1.17:** Design streets to improve access to destinations by transit, bicycle and walking.

#### Construction

**Less-Than-Significant Impact with Mitigation.** The Proposed Project would result in construction effects like those experienced for a typical roadway project. These construction effects could include inconveniences associated with temporary disruptions to existing travel patterns and temporary access limitations. Construction impacts could include roadway lane closures for temporary periods of time. The degree of traffic disruption during construction would depend on several factors, including how large the construction activity area is and the duration of each construction phase. In addition to impacts due to construction activities, the traffic generated by construction workers and trucks hauling construction materials and supplies may also cause traffic impacts. Because of the temporary duration of these effects, the construction impacts on traffic are less-than significant with mitigation.

A Traffic Management Plan would be required to mitigate impacts to traffic circulation and access. Therefore, without mitigation, the Proposed Project would result in a significant impact on transit related to construction activities.

#### Operations

**Less-Than-Significant Impact.** Operation of the Proposed Project is not expected to result in substantial changes to vehicle circulation.

#### Segment A – North Hollywood District of the City of Los Angeles

- **Proposed Project - A1**
  - Chandler Avenue: In the westbound direction, there are no anticipated changes except the replacement of some on-street parking spaces. In the eastbound direction, one vehicular travel lane would be converted to a dedicated bus lane, thus providing one vehicular travel lane along Chandler Boulevard in both the eastbound and westbound directions.

- Vineland Avenue: The Proposed Project maintains two vehicular travel lanes in each direction. The Proposed Project would require new traffic signals in the southbound direction at Vineland Avenue / Weddington Street and at Vineland Avenue / McCormick Street for the operation of the proposed cycle track. In addition, a new pedestrian signal is proposed at Vineland Avenue/Huston Street to improve pedestrian circulation. Route Option A1 would maintain left-turn operations at all signalized intersections, except:
  - Hesby Street: The Proposed Project would restrict left turns from Hesby Street (N) to northbound Vineland Avenue.
- Lankershim Boulevard: The Proposed Project consolidates right turns with the outside through lane to provide a dedicated bus lane at the Vineland Avenue / Lankershim Boulevard / Camarillo Street intersection.
  - Kling Street: The Proposed Project would restrict some left-turn movements at Kling Street, requiring vehicles to divert to an alternate route. The Proposed Project would add a traffic signal to allow left turns from northbound Lankershim Boulevard to westbound Kling Street, across the Proposed Project's dedicated bus lanes.
- **Route Option A2**
  - Lankershim Boulevard: This Route Option proposes to convert a vehicular travel lane to a dedicated bus lane in each direction between Chandler Boulevard and Camarillo Street, reducing Lankershim Boulevard from two vehicular travel lanes to one vehicular travel lane in each direction. Right-turning vehicles along Lankershim Boulevard would be allowed to enter the bus lanes to make right turns.

#### Segment B – North Hollywood to Burbank

- **Proposed Project - B**
  - SR-134: The Project Proposed would operate the BRT service in mixed-flow traffic along SR-134 with no change to the existing roadway configuration or operations.

#### Segments C and D – City of Burbank

- **Proposed Project - C**
  - Olive Avenue: The Proposed Project retains two vehicular travel lanes in each direction
- **Proposed Project - D**
  - Glenoaks Boulevard: The Proposed Project would retain two vehicular travel lanes in each direction on Glenoaks Boulevard through the City of Burbank.

### Segments D and E – City of Glendale

- **Proposed Project - D**
  - Glenoaks Boulevard: The Proposed Project would convert the inside vehicular travel lane in each direction to a dedicated bus lane, reducing Glenoaks Boulevard from three vehicular travel lanes to two vehicular travel lanes in each direction.
- **Proposed Project - E1**
  - Central Avenue: The Proposed Project would convert the outside vehicular travel lane in each direction to a dedicated bus lane between Sanchez Drive and Broadway.
  - Broadway: The Proposed Project would convert the outside vehicular travel lane in each direction to a dedicated bus lane.
- **Route Option E2**
  - Colorado Street: Route Option E2 would convert the outside vehicular travel lane in each direction to a dedicated bus lane.
- **Route Option E3**
  - SR-134: Route Option E3 would operate along SR-134 in mixed-flow traffic and use the shoulder areas of ramps for loading zones at BRT stations.

### Segment F – Eagle Rock Community of the City of Los Angeles

- **Route Option F1**
  - Colorado Boulevard: Route Option F1 would convert the existing median area to center-running bus-only lanes and would maintain two vehicular travel lanes in each direction. Route Option F1 would maintain left-turn operations at signalized intersections.
- **Proposed Project - F2**
  - Colorado Boulevard: The Proposed Project would convert the existing buffered bicycle lanes to shared bus-and-bicycle lanes. Two vehicular travel lanes in each direction, existing median and left-turn access would be maintained.
- **Route Option F3**
  - SR-134: Route Option F3 would operate in mixed-flow traffic on SR-134 with no change to the existing roadway configuration or operations.

### Segments G and H – City of Pasadena

- **Proposed Project - G1**
  - The Proposed Project would operate in mixed-flow traffic along Fair Oaks Avenue, Walnut Street, and Raymond Avenue with no change to the existing roadway configuration or operations.

- **Route Option G2**
  - Route Option G2 would operate in mixed-flow traffic along Colorado Boulevard with no change to the existing roadway configuration or operations.
- **Proposed Project - H1**
  - The Proposed Project would operate in mixed-flow traffic along Colorado Boulevard with no change to the existing roadway configuration or operations. A short segment of Hill Avenue would be restriped to accommodate the loading/layover zone at the PCC terminus station.
- **Route Option H2**
  - Impacts to roadway operations along Union Street and Green Street would be minimal because the Route Option H2 would operate in mixed-flow traffic. A short segment of Hill Avenue would be restriped to accommodate the loading/layover zone at the PCC terminus station.

Overall, the operation of the Proposed Project is not expected to result in substantial changes to vehicle circulation. Therefore, the Proposed Project would result in a less-than-significant impact related to roadway operations.

### Impact A – Pedestrian Facilities

The Proposed Project was reviewed with respect to pedestrian facilities for consistency with applicable plans, ordinances, and policies at the local jurisdiction level for the City of Los Angeles, City of Burbank, City of Glendale, and the City of Pasadena.

#### City of Los Angeles Mobility Plan 2035

The Proposed Project is consistent with several policies of the City of Los Angeles Mobility Plan including:

- **Policy 2.3 Pedestrian Infrastructure:** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

#### City of Burbank Media District Specific Plan

The Proposed Project is consistent with recommendations and goals of the Burbank Media District Specific Plan including:

- Provide land uses, urban design components and public improvements which maximize pedestrian travel within the district.



### City of Burbank's General Plan

The Proposed Project is consistent with several transportation goals of the Burbank General Plan including:

- **Policy 5.1:** Maximize pedestrian and bicycle safety, accessibility, connectivity, and education throughout Burbank to create neighborhoods where people choose to walk or ride between nearby destinations.
- **Policy 9.1:** Ensure safe interaction between all modes of travel that use the street network, specifically the interaction of bicyclists, pedestrians, and equestrians with motor vehicles.
- **Policy 9.2:** Address the needs of people with disabilities and comply with the requirements of the Americans with Disabilities Act during the planning and implementation of transportation improvement projects.

### City of Glendale Downtown Specific Plan

The Proposed Project is consistent with policies of the Glendale Downtown Specific Plan including:

- **Policy 6.1.5.A:** Provide a high level of pedestrian amenities throughout the downtown area. Minimize interruptions, such as areas for loading and trash collection, and parking garage entries, in sidewalks designated for pedestrian priority,
- **Policy 6.1.5.B:** Provide pedestrian crosswalks at all intersections and consider additional improvements to promote safety in key locations with high potential for pedestrian/vehicle conflicts.

## Construction

**Less-Than-Significant Impact with Mitigation.** Construction of the Proposed Project may require temporary closure of sidewalks along the Project's BRT route and in proximity to the proposed BRT stations. These temporary closures may impact existing pedestrian circulation. Although temporary, the potential disruption to pedestrian circulation may result in an impact without mitigation measures. Depending on the magnitude and duration of construction, pedestrian detours and appropriate signage may mitigate the impacts to the pedestrian circulation. Pedestrian access to adjacent properties would be maintained during construction.

A Traffic Management Plan would be required to mitigate impacts to pedestrian circulation and access. Therefore, without mitigation, the Proposed Project would result in a significant impact on pedestrian facilities related to construction activities.

## Operations

**Less-Than-Significant Impact.** Operation of the Proposed Project is not expected to result in substantial changes to pedestrian circulation or facilities. The Proposed Project would provide enhancements to pedestrian circulation by installing signalized marked crosswalks and reconstructing sidewalks to accommodate new stations/platforms while also serving pedestrian

movements. At some locations, stations placed on sidewalks would require bus patrons to share portions of the sidewalk with general pedestrian traffic. The following is a summary of changes to pedestrian facilities.

Segment A – North Hollywood District of the City of Los Angeles

- **Proposed Project - A1**
  - Lankershim Boulevard/Camarillo Street (Proposed Project - A1 and Route Option A2): New crosswalk.
  - Vineland Avenue/Huston Street: New pedestrian signal and crosswalk.
- **Route Option A2**
  - Lankershim Boulevard: The sidewalk width along Lankershim Boulevard south of Camarillo Street would need to be reduced by up to two feet on each side of the street to fit the dedicated bus lanes.

Segment B – North Hollywood to Burbank

- **Proposed Project - B**
  - SR-134: No changes in pedestrian facilities.

Segments C and D – City of Burbank

- **Proposed Project - C**
  - Olive Avenue/Burbank-Downtown Metrolink Station: A pair of station loading platforms would be located along the sidewalks on the bridge with a new signalized mid-block crosswalk connecting the station platforms with the existing elevator and pedestrian ramp structure, respectively. Curb extensions would be provided to accommodate station platforms and pedestrian circulation along the sidewalks.
  - Riverside Drive/Olive Avenue: Curb extensions would be added to accommodate station platforms and pedestrian circulation at Riverside Drive/Olive Avenue.
  - Olive Avenue between Alameda Avenue and Niagara Street: The roadway would be widened from 68 feet to 72 feet by moving the curb out into the shoulder area. Blocks towards the Media District typically have fully paved 15-foot-wide sidewalks; approaching downtown Burbank, there is a landscaped strip between the paved sidewalk and curb which would be reduced in width. The sidewalk would remain functional and Americans with Disabilities Act (ADA) compliant.
  - Olive Avenue between Fairview Street and Niagara Street: The segment of Olive Avenue between Fairview Street and Niagara Street has an existing landscape strip between the sidewalk and the curb which would be narrowed without affecting the sidewalk.
  - Olive Avenue between Lincoln Street and Myers Street: Sidewalk widths would be reduced by up to two feet along the east and west curb of Olive Avenue between Lincoln Street and Myers Street. The sidewalk would remain functional and ADA compliant.

- Olive Avenue between Parish Place and Reese Place: Sidewalk widths would be reduced by up to three feet along the west curb of Olive Avenue between Parish Place and Reese Place. The sidewalk would remain functional and ADA compliant.
- Olive Avenue between Beachwood Drive and Virginia Avenue: Sidewalk widths would be reduced by up to two feet along the east and west curb of Olive Avenue between Beachwood Drive and Virginia Avenue. The sidewalk would remain functional and ADA compliant. Along this segment there are locations with an existing landscape strip between the sidewalk and the curb which would be narrowed without affecting the sidewalk.
- **Proposed Project - D**
  - Glenoaks Boulevard between Olive Avenue and Providencia Avenue: Sidewalk widths would be reduced by up to two feet on each side of Glenoaks Boulevard between Olive Avenue and Providencia Avenue to accommodate the dedicated bus lanes. The sidewalk would remain functional and ADA compliant.

Segment E – City of Glendale

- **Proposed Project – E1**
  - Central Avenue/Lexington Drive (Proposed Project - E1 and Route Option E2): Curb extensions would be added to accommodate station platforms and pedestrian circulation. At curb extension locations where bicycle lanes are present, bicycles would be re-routed behind the loading zone and ramped onto a 5-foot zone shared with pedestrians within the existing sidewalk.<sup>4</sup>
  - Broadway/Brand Boulevard: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
  - Broadway/Glendale Avenue: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
- **Route Option – E2**
  - Colorado Street/Brand Boulevard: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
  - Colorado Street/Glendale Avenue: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
  - Colorado Street/Verdugo Road: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
- **Route Option – E3**
  - Goode Avenue: Curb extensions would be added to accommodate station platforms and pedestrian circulation.

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<sup>4</sup> This is the typical treatment for all stations located along the sidewalk where designated bike lanes are present.

Segment F – Eagle Rock Community of the City of Los Angeles

- **Route Option – F1**
  - Colorado Boulevard/Eagle Rock Plaza Station: A new crosswalk would be added on the east leg of the West Broadway/Colorado Boulevard intersection along with curb extensions to accommodate access to the station platforms and pedestrian circulation. Implementation of the bus lanes will conflict with most of the ATP curb extensions currently under design by the City of Los Angeles. However, at most locations where crosswalks are present new medians proposed in conjunction with the bus lanes would provide refuge for pedestrians crossing Colorado Boulevard.
- **Proposed Project – F2**
  - Colorado Boulevard/Townsend Avenue: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
- **Route Option – F3**
  - Figueroa Street/Colorado Boulevard (Route Option F3): Curb extensions would be added to accommodate station platforms and pedestrian circulation.

Segments G and H – City of Pasadena

- **Proposed Project - G1**
  - North Raymond Avenue/Holly Street: Curb extensions would be added to accommodate station platforms and pedestrian circulation.
- **Route Option G2**
  - Colorado Boulevard/Arroyo Parkway: Curb extensions would be added behind the Rose Bowl Parade “blue line” to accommodate station platforms and pedestrian circulation.
  - Green Street/Arroyo Parkway (Route Option G2 with Route Option H2): Curb extensions would be added to accommodate the station platform and pedestrian circulation.
  - Union Street/Arroyo Parkway (Route Option G2 with Route Option H2): Curb extensions would be added to accommodate the station platform and pedestrian circulation.
- **Proposed Project - H1**
  - Colorado Boulevard/Los Robles Avenue: Curb extensions would be added behind the Rose Bowl Parade “blue line” to accommodate station platforms and pedestrian circulation.
  - Colorado Boulevard/Lake Avenue: Curb extensions would be added behind the Rose Bowl Parade “blue line” to accommodate station platforms and pedestrian circulation.
  - Hill Avenue south of Colorado Boulevard: The layover facility along the east curb of Hill Avenue would require relocating the sidewalk. The Proposed Project would

extend the sidewalk five feet towards the Pasadena Community College parking lot on private property impacting the existing landscape. This layover zone would also be used for passenger loading for Route Option H2.

- **Route Option H2**

- Green Street/Lake Avenue: A curb extension would be added to accommodate a station platform and pedestrian circulation adjacent to commercial uses (bank building). The existing green zone and yellow loading zone along the curb would be relocated further to the east along Green Street.
- Union Street/Lake Avenue: A pedestrian plaza would be developed adjacent to the station platform within the existing Union Street right-of-way on the east leg of the intersection, to reduce pedestrian crossing distances across Union Street.
- Hill Avenue south of Colorado Boulevard: Similar to Route Option H1, the layover facility along the east curb of Hill Avenue would require relocating the sidewalk. The Proposed Project would extend the sidewalk five (5) feet towards the Pasadena Community College parking lot on private property impacting the existing landscape.

At some locations, sidewalks may require an approximate 1 to 2 foot reduction in width to accommodate station platforms and/or widening of the roadway to accommodate dedicated bus lanes, however, the remaining sidewalk width would typically exceed 10 feet and in no instances would sidewalks be reduced to the extent that pedestrian circulation would be impaired or in violation of ADA standards. At some locations, stations placed on sidewalks would require bus patrons to share portions of the sidewalk with general pedestrian traffic, and where on-street bicycle lanes exist, bikes may be routed onto the sidewalk in a shared zone behind the bus loading area to avoid conflicts with the bus loading zone. Overall, the Proposed Project would enhance walkability in the station areas. Therefore, the Proposed Project would result in a less-than-significant impact related to pedestrian operations.

## Impact A – Bicycle Facilities

The Project was reviewed with respect to bicycles for consistency with applicable plans, ordinances, and policies at the local jurisdiction level for the City of Los Angeles, City of Burbank, City of Glendale, and the City of Pasadena.

### City of Los Angeles Mobility Plan 2035

The Proposed Project is consistent with several policies of the City of Los Angeles Mobility Plan 2035 including:

- **Policy 2.6 Bicycle Networks:** Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities.

Colorado Boulevard in Eagle Rock is identified as a Comprehensive Transit Enhanced Street in the Mobility Plan's Transit Enhanced Network (TEN). The Transit-Enhanced Streets outlined in the Plan strives for reliable and frequent transit service that is convenient and safe, increases transit mode share, reduces single-occupancy vehicle

trips, and integrates transit infrastructure investments with the identity of the surrounding street. Enhancements may range from streetscape improvements to making walking safer and easier, to transit shelters, or bus lanes.

Colorado Boulevard in Eagle Rock is also identified for Tier 1/Protected Bike Lanes (bicycle lanes on an arterial roadway with physical separation) in the Mobility Plan's Bicycle Enhanced Network (BEN). Bicycling plans and implementation strategies would continue to evolve as conditions change, but the City's long-term vision would remain to provide safe, convenient, and comfortable bicycling facilities.

If a street is identified on both the TEN and the BEN, designs must include both dedicated transit facilities and protected bicycle facilities, if feasible. The Mobility Plan realizes that future street improvements may not always fully realize the full design elements that have been conceived and/or articulated.

The Proposed Project – F2 configuration would provide dedicated side-running bus lanes in the Eagle Rock segment of Colorado Boulevard from east of the Colorado Boulevard/W. Broadway intersection extending approximately 1.5 miles to Dahlia Drive. The following design and operations considerations would contribute to accommodating bicycles within the shared bus-and-bicycle lanes.

- Bicycles would share the bus/bicycle lanes with a moderate volume of buses (approximately 14 buses per hour in each direction (including the proposed BRT service along with NextGen enhanced service for Route 180), reducing the potential for conflicts.
- Buses would maneuver into the mixed-flow vehicular travel lanes to overtake cyclists.
- Bypass lanes would be provided behind the BRT station loading platforms to reduce bus-bicycle conflicts in the loading zone and allow cyclists to pass buses stopped at the BRT stations.
- Red-colored pavement may be implemented in the shared bus/bicycle lanes to enhance the conspicuity of the lanes; red-colored pavement is reserved for (1) the exclusive use by public transit vehicles or (2) multi-modal facilities where public transit is the primary mode.
- Curb extensions proposed as part of the City of Los Angeles Active Transportation Program (ATP) Cycle 2 project would be retained as a pedestrian enhancement.

#### City of Burbank Bicycle Master Plan

The Proposed Project is consistent with several policies of the Burbank Bicycle Master Plan including:

- **Policy 1:** Make bicycle travel an integral part of daily life in Burbank, particularly for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, making bicycling safer, and engaging the public in bicycling related issues and decisions.

- **Policy 2:** Provide bicycle-friendly connections to transit centers, major employment centers, retail districts, and residential areas to make the overall road network more hospitable to bicycle travel.

#### City of Burbank's General Plan

The Proposed Project is consistent with several transportation goals of the Burbank's General Plan including:

- **Policy 5.1:** Maximize pedestrian and bicycle safety, accessibility, connectivity, and education throughout Burbank to create neighborhoods where people choose to walk or ride between nearby destinations.
- **Policy 5.2:** Implement the Bicycle Master Plan by maintaining and expanding the bicycle network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer.
- **Policy 5.3:** Provide bicycle connections to major employment centers, shopping districts, residential areas, and transit connections.

#### Construction

**Less-Than-Significant Impact with Mitigation.** Construction of the Proposed Project may require roadway lane closures for temporary periods of time that may affect existing and planned bicycle facilities. Existing bicycle lanes (Class II) along Vineland Avenue between Chandler Boulevard and Lankershim (Proposed Project - A1), Glenoaks Boulevard between Alameda Avenue and Pacific Avenue (Proposed Project – D), Central Avenue between Doran Street and Wilson Avenue (Proposed Project – E1 and Route Option E2), and Colorado Boulevard between Eagle Rock Avenue and Figueroa Street (Route Option F1 and Proposed Project – F2) may be affected during construction of the Proposed Project. Although temporary, the potential disruption to bicycle circulation may result in an impact without mitigation.

A Traffic Management Plan would be required to mitigate impacts to bicycle circulation and access. Therefore, without mitigation, the Proposed Project would result in a significant impact to bicycle facilities related to construction activities.

#### Operations

**Less-Than-Significant Impact with Mitigation.** The Proposed Project would primarily enhance bicycle facilities by providing bypass lanes around BRT stations and by allowing bicycles to utilize dedicated bus lanes. However, the existing 10-foot buffered Class II bicycle lanes on Colorado Boulevard in Eagle Rock would be converted to a 12-foot shared bus/bicycle lane under the Proposed Project. Any design changes to bicycle facilities would be coordinated with the Cities of Los Angeles, Burbank, Glendale, and Pasadena. The following is a summary of effects to bicycle facilities by project segment.

Potential project impacts were analyzed based on the following changes to the bicycle network:



Segment A – North Hollywood Community of the City of Los Angeles

- **Proposed Project - A1**
  - Chandler Boulevard: The Class II bicycle lanes may be upgraded by adding a striped buffer to provide separation from the adjacent travel lanes.
  - Vineland Avenue: The Class II bicycle lanes would be replaced by a two-way cycle track (Class IV) along the west curb of Vineland Avenue, which would be separated from the adjacent travel lanes with a three-foot physical barrier. The cycle track would extend from Chandler Boulevard through the Lankershim Boulevard/ Camarillo Street intersection to Hortense Street.

Segment B – North Hollywood to Burbank

- **Proposed Project - B**
  - SR-134: No changes in bicycle facilities.

Segments C and D – City of Burbank

- **Proposed Project - C**
  - Olive Avenue: No change in bicycle facilities.
- **Proposed Project - D**
  - Glenoaks Boulevard: No change in bicycle facilities.

Segments D and E – City of Glendale

- **Proposed Project - D**
  - Glenoaks Boulevard: Class II bicycle lanes would be maintained between Alameda Avenue and Pacific Avenue.
- **Proposed Project – E1**
  - Central Avenue from Doran Street to Wilson Avenue (Proposed Project - E1 and Route Option E2): The Class II bicycle lanes would be maintained and rerouted behind the station platform areas at Lexington Drive.
  - Broadway from Brand Boulevard to Harvey Drive: The Class III bicycle route (sharrows) would be removed with the implementation of dedicated bus lanes. Bicycles would share the bus lanes with a relatively low volume of buses relative to traffic on the existing general-purpose lanes. In addition, bicyclists can use the nearby parallel Class III route (sharrows) along Harvard Street.

Segment F – Eagle Rock Community of the City of Los Angeles

- **Route Option F1**
  - Colorado Boulevard/Eagle Rock Plaza: The Class II bicycle lanes would be maintained with a reduced striped buffer (reduced by 3 feet?) and rerouted behind the station platform areas at Eagle Rock Plaza.
- **Proposed Project – F2**
  - Colorado Boulevard: The existing buffered Class II bicycle lanes (striped buffer separating bicycle lanes from the vehicle lanes that is 10 feet in width inclusive of

the buffer area) would be converted to a 12-foot shared bus/bicycle lane. This configuration would provide dedicated side-running bus lanes in the Eagle Rock segment of Colorado Boulevard from east of the Colorado Boulevard/W. Broadway intersection extending approximately 1.5 miles to Dahlia Drive. Bicycles (approximately 4 bicycles during the peak hour in each direction) would share the bus/bicycle lanes with a relatively low volume of buses (approximately 14 total buses per hour in each direction), reducing the potential for conflicts. Buses would maneuver into the mixed-flow vehicular travel lanes to overtake cyclists. Bypass lanes would be provided behind the BRT station loading platforms to reduce bus-bicycle conflicts in the loading zone and allow cyclists to pass buses stopped at the BRT stations. Red-colored pavement would be implemented in the shared bus-and-bicycle lanes to enhance the conspicuity of the lanes. The Federal Highway Administration (FHWA) has issued an Interim Approval for the optional use of red-colored pavement to enhance the conspicuity of station stops, travel lanes, or other locations in the roadway that are reserved for (1) the exclusive use by public transit vehicles or (2) multi-modal facilities where public transit is the primary mode. Colorado Boulevard is identified on both the Mobility's Plan Transit Enhanced Network and the Bicycle Enhanced Network, which requires designs to include both dedicated transit facilities and protected bicycle facilities, if feasible. However, the Mobility Plan realizes that future street improvements may not always fully realize the full design elements that have been conceived and/or articulated. Further, Policy 2.9 of the City of Los Angeles Mobility Plan 2035 calls for the consideration of each enhanced network (transit, bicycle, and vehicle) when designing a street that includes multiple modes. While the configuration provides a designated multi-modal facility with design and operations considerations for bicycles and transit, the conversion of the existing Class II bicycle lanes to a multi-modal lane would be inconsistent with the existing Mobility Plan 2035.

Therefore, without mitigation, the Proposed Project would result in a significant impact related to consistency with plans and policies governing bicycle operations.

#### Segments G and H – City of Pasadena

- **Proposed Project – G1**
  - No change in bicycle operations.
- **Route Option G2**
  - No change in bicycle operations.
- **Proposed Project – H1**
  - No change in bicycle operations.
- **Route Option H2**
  - No change in bicycle operations.

Potential project impacts were analyzed based on the following changes to the bicycle network:

- In order to facilitate bicycle safety along Broadway (for Proposed Project - E1) in the City of Glendale, the current Class III route (sharrows) would be removed. Bicyclists would share the bus lanes with a relatively low volume of buses. The bus lane could be delineated with red paint to discourage use by other roadway traffic and reducing conflicts with bicycles operating in the curb lane. In addition, bicyclists can use the nearby parallel Class III route (sharrows) along Harvard Street (***less than significant impact***).
- To accommodate far-side platforms near Central Avenue/Lexington Drive (Proposed Project - E1 and Route Option E2), the Class II Bike Lanes would be rerouted behind the station platform area (***less than significant impact***).
- The Colorado Boulevard Class II bicycle lanes would be rerouted behind the station platform area at the Colorado Boulevard/Eagle Rock Plaza Station for Route Option F1 (***less than significant impact***).
- For the Colorado Boulevard (Proposed Project - F2) in Eagle Rock (City of Los Angeles), the existing 10-foot buffered Class II bicycle lanes would be converted to a 12-foot shared bus/bicycle lane. Red-colored pavement would be implemented in the shared bus-and-bicycle lanes in the multi-modal facility to enhance the conspicuity of the lanes. Colorado Boulevard is identified on both the Mobility's Plan Transit Enhanced Network (TEN) and the Bicycle Enhanced Network (BEN), which requires designs to include both dedicated transit facilities and protected bicycle facilities, if feasible. However, the Mobility Plan realizes that future street improvements may not always fully realize the full design elements that have been conceived and/or articulated. Accordingly, the proposed shared bus-and-bicycle lanes do not interfere with implementation of the City's Mobility Element, as the configuration provides a designated multi-modal facility with design and operations considerations for bicycles and transit (***less than significant***).

Therefore, the Proposed Project would result in a less-than-significant impact related to bicycle operations.

### Mitigation Measures

**TRA-1:** Prior to the initiation of localized construction activities, a Traffic Management Plan compliant with the provisions of the current California Manual on Uniform Traffic Control Devices, the California Traffic Control Handbook and local ordinances, as applicable, shall be developed by Metro and the construction contractor in coordination with the City of Los Angeles, City of Burbank, City of Glendale, and City of Pasadena. Metro shall develop detours as appropriate and communicate any changes to bus service to local transit agencies in advance. Stops shall be relocated in a manner which is least disruptive to transit. If bus stops need to be relocated, warning signs shall be posted in advance of closure along with alternative stop notifications and information regarding the duration of the closure.

- TRA-2:** Prior to the initiation of localized construction activities, a Traffic Management Plan and/or Construction Management Plan compliant with the provisions of the current California Manual on Uniform Traffic Control Devices, the California Traffic Control Handbook and local ordinances, as applicable, shall be developed by Metro and the construction contractor in coordination with the City of Los Angeles, City of Burbank, City of Glendale, and City of Pasadena. The Traffic and/or Construction Management Plan shall include provisions such as: approval of work hours and lane closures, designation of construction lay-down zones, provisions to maintain roadway access to adjoining land uses, use of warning signs, temporary traffic control devices and/or flagging to manage traffic conflicts, and designation of detour routes where appropriate.
- TRA-3:** Prior to the initiation of localized construction activities, a Traffic Management Plan and/or Construction Management Plan compliant with the provisions of the current California Manual on Uniform Traffic Control Devices, the California Traffic Control Handbook and local ordinances, as applicable, shall be developed by Metro and the construction contractor, in coordination with affected jurisdictions. The plan shall include provisions for wayfinding signage, lighting, and access to pedestrian safety amenities (such as handrails, fences and alternative walkways). Metro shall also work with local municipalities and public works departments to confirm that only one side of the street would be closed at a time. If crosswalks are temporarily closed, pedestrians shall be directed to use nearby pedestrian facilities. Where construction encroaches on sidewalks, walkways and crosswalks, special pedestrian safety measures shall be used such as detour routes and temporary pedestrian shelters. Access to businesses and residences shall be maintained throughout the construction period. These mitigation measures shall be documented in a Traffic Management Plan and/or Construction Management Plan.
- TRA-4:** Prior to the initiation of localized construction activities, a Traffic Management Plan and/or Construction Management Plan compliant with the provisions of the current California Manual on Uniform Traffic Control Devices, the California Traffic Control Handbook and local ordinances, as applicable, shall be developed by Metro and the construction contractor, in coordination with the affected jurisdictions. The plan shall identify on-street bicycle detour routes and signage. Metro shall also work with local municipalities and public works departments to accommodate bicycle circulation during construction. Bicycle access to businesses and residences shall be maintained throughout the construction period. These mitigation measures shall be documented in a Traffic Management Plan and/or Construction Management Plan.
- TRA-5:** Prior to completion of Final Design, Metro shall convene a design working group with LADOT to resolve potential bicycle conflicts and identify network enhancements that integrate bicycle and BRT facilities, consistent with Policy 2.6 and Policy 2.9 of the Mobility Plan 2035. The design working group shall include

representatives from the LADOT Active Transportation Division, the Los Angeles Bureau of Engineering, and a representative of the Los Angeles Bicycle Coalition. Coordination shall be provided with LADOT and the Active Transportation Division during the preliminary engineering design development phase.

### Significance of Impacts after Mitigation

Mitigation Measure **TRA-1** would ensure that the Proposed Project would not interfere with transit. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.

Mitigation Measure **TRA-2** would ensure that the Proposed Project would not interfere with traffic circulation and access. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.

Mitigation Measure **TRA-3** would ensure that the Proposed Project would not interfere with pedestrian operations and circulation. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.

Mitigation Measure **TRA-4** would ensure that the Proposed Project would not interfere with bicycle operations and circulation. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.

Mitigation Measure **TRA-5** would ensure that the Proposed Project is designed in a manner that is consistent with Mobility Plan 2035 avoiding potential conflicts between the Proposed Project operations and bicycles. Examples of specific design provisions include: (1) maintaining minimum standard sizing of traffic handling features, (2) configuring transition zones to provide adequate length for maneuvering and maintaining adequate sight distance at conflict points, (3) routing of bicycles behind sidewalk station loading zones where applicable, (4) use of colored pavement markings to minimize intrusion into the bus and bicycle lanes where applicable, and (5) provision of appropriate warning and regulatory signage. Therefore, with mitigation, the Proposed Project would result in a less-than-significant impact related to operational activities.

### **Impact b)**      Would the Proposed Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3 describes specific considerations for evaluating transportation impacts. The Guidelines states that VMT is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The Guidelines also state that transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact.

## Construction

**Less-Than-Significant Impact.** During construction, the Proposed Project would temporarily generate additional VMT related to construction work activities and the hauling of excavated materials and construction supplies. The additional VMT would be insignificant in relation to VMT for the No Project Scenario, as the Proposed Project is anticipated to reduce VMT. Therefore, the Proposed Project would result in a less-than-significant impact related to construction activities.

## Operations

**No Impact.** Table 6 demonstrates that VMT is forecast to decrease due to the increased use of transit with the implementation of the Proposed Project in comparison to the No Project. The Proposed Project is expected to attract new transit riders thus encouraging a shift from automobile use to public transit as well as improved regional connectivity and local transit access to corridor destinations. Therefore, the Proposed Project would not result in a significant impact related to operational activities.

**Table 6 – Comparison of 2042 Total VMT**

	No Project	Proposed Project
Total VMT (Daily)	511,871,989	511,785,330
Difference		(86,659)

**SOURCE:** RSG, 2020

Transportation modeling was completed for three scenarios (Proposed Project and two scenarios representative of the Route Options), which collectively incorporated all the various route options. The regional VMT for implementing the Route Options differed from the Proposed Project by only approximately 0.003 percent and in all cases the VMT was lower than for the No Project scenario. Therefore, similar to the Proposed Project, the Route Options would not result in a significant impact related to operational activities.

## Mitigation Measures

No mitigation measures are required.

**Impact c)** Would the Proposed Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

## Construction

**No Impact.** This Impact Statement relates to operational conditions. Construction activities would not create hazards due to geometric design or incompatible land uses. In addition, Mitigation Measures **TRA-1** through **TRA-4** require the Proposed Project to implement a Traffic Management Plan, including traffic control measures that comply with the California Manual on Uniform Traffic Control Devices for temporary traffic control while also following local jurisdiction

guidelines. Therefore, the Proposed Project would not result in a significant impact related to construction activities.

### Operations

**Less-Than-Significant Impact.** The Proposed Project uses the existing street alignment and right-of-way and would not substantially increase hazards due to a geometric design feature, as the Proposed Project would be designed per applicable design criteria and standards. For segments with median-running bus lanes, stations are usually provided on islands at intersections and are accessible from the signalized crosswalk. The safety measures include signal-protected pedestrian movements, channelization, barriers to protect and route pedestrians, ADA-compliant curb ramps, along with warning signs to provide for convenient and safe access to boarding areas. Further, the BRT service would include “queue jumps” at selected locations at which a traffic signal with special bus indications would display a bus-only phase, which would allow buses to enter an intersection before a green indication is given to other traffic in order to allow the bus to maneuver across mixed-flow lanes ahead of conflicting traffic. Since other traffic would be observing a red signal during the bus phase, adverse safety impacts would be minimal. Therefore, the Proposed Project would result in a less-than-significant impact related to operational activities.

### Mitigation Measures

No mitigation measures are required.

#### Impact d) Would the Proposed Project result in inadequate emergency access?

### Construction

**Less-Than-Significant Impact with Mitigation.** Lane closures, traffic detours, and designated truck routes associated with construction could temporarily result in decreased access and delayed response times for emergency services. A Traffic Management Plan would be required to maintain circulation and access. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.

### Operations

**Less-Than-Significant Impact.** Emergency vehicles would be permitted to use the Project’s dedicated bus lanes, similar to mixed-flow vehicular travel lanes. Since the dedicated bus lanes would be free of most vehicular traffic and emergency vehicles would be permitted to use the dedicated bus lanes, emergency response time would be no worse than under current conditions and would likely be improved. Therefore, the Proposed Project would result in less-than-significant impact related to operational activities.

### Mitigation Measures

**TRA-6:** The construction contractor shall provide early notification of traffic disruption to emergency service providers. Work plans and traffic control measures shall be coordinated with emergency responders to prevent impacts to emergency response times. A Traffic Management Plan will shall be developed and implemented for the Project to minimize impacts on emergency access.

### Significance of Impacts after Mitigation

Mitigation Measure **TRA-6** would ensure that the Proposed Project would not interfere with emergency access. Therefore, with mitigation, the Proposed Project would result in less-than-significant impact related to construction activities.



## 8. Cumulative Analysis

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CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA Guidelines Section 15130(a) requires that an EIR discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." As set forth in CEQA Guidelines Section 15065(a)(3), "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Thus, the cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of multiple projects.

In accordance with CEQA Guidelines Section 15130(a)(3), a project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. In addition, the lead agency is required to identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

CEQA Guidelines Section 15130(b) further provides that the discussion of cumulative impacts reflects "the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone." Rather, the discussion is to "be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute." CEQA Guidelines Sections 15130(b)(1)(A) and (B) include two methodologies for assessing cumulative impacts. One method is a list of past, present, and probable future projects producing related or cumulative impacts. The other method is a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan or regional transportation plan. The cumulative effect on transportation in the Project Area is best addressed through consideration of an adopted local or regional plan or related planning documents.

Related Projects that are considered in the cumulative impact analysis are those projects that may occur in the Project Site's vicinity within the same timeframe as the Proposed Project. In this context, "Related Projects" includes past, present, and reasonably probable future projects. Related Projects associated with this growth and located within half a mile of the Project Site are depicted graphically in **Figures 3a** through **3c** and listed in **Table 7**. Related projects of particular relevance to the Proposed Project are discussed below.

Figure 3a – Related Projects

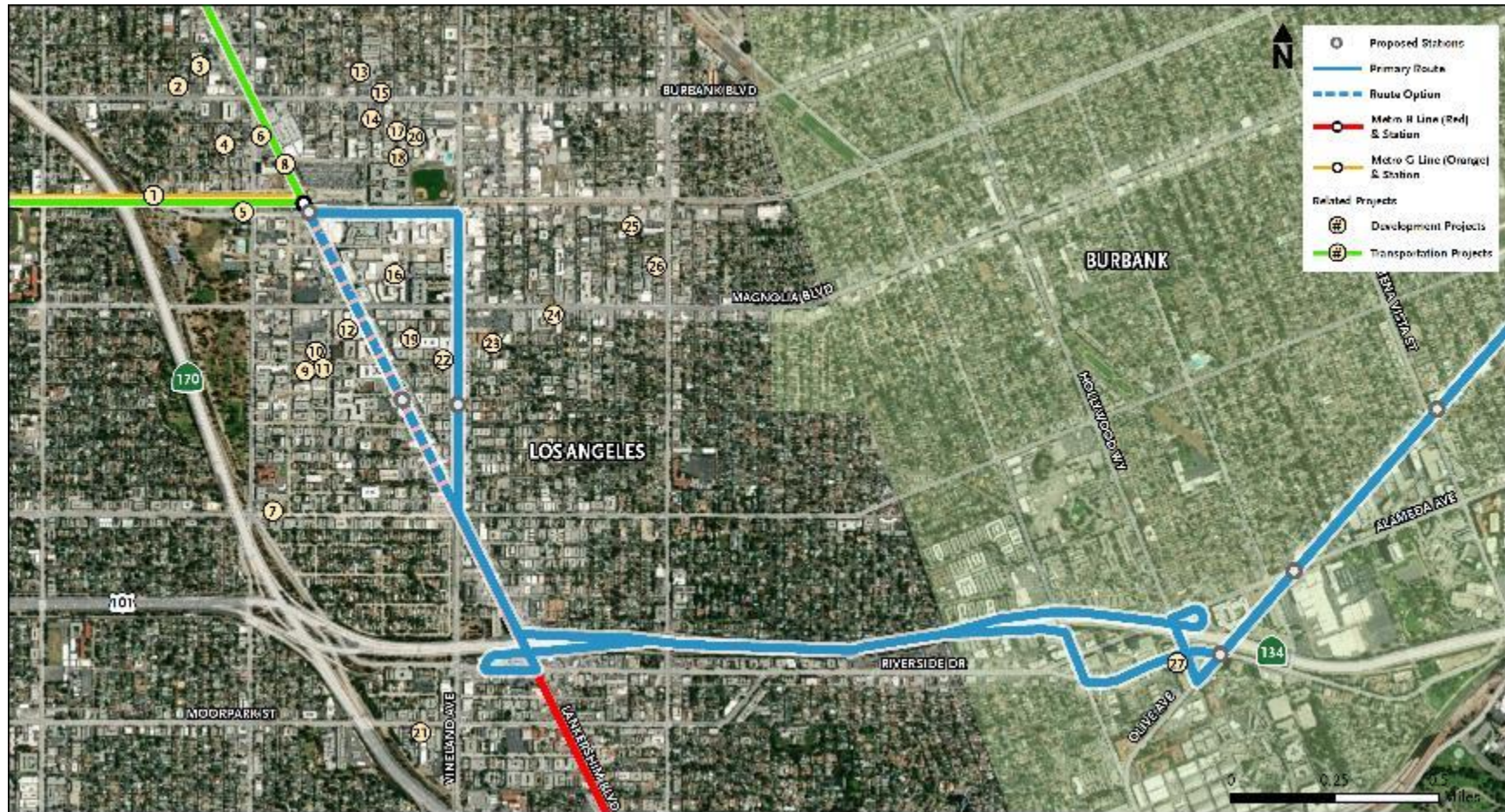




Figure 3b – Related Projects

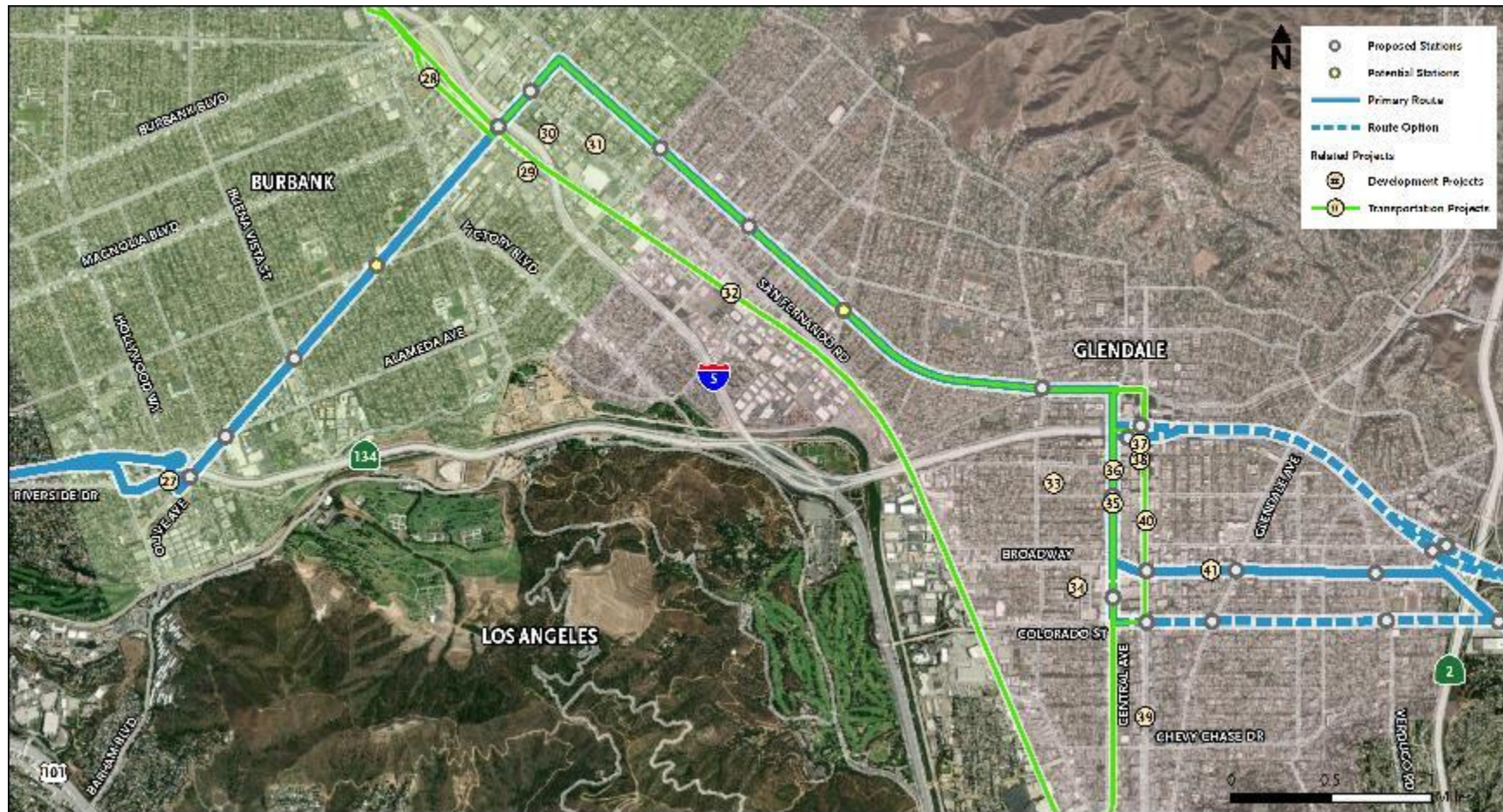
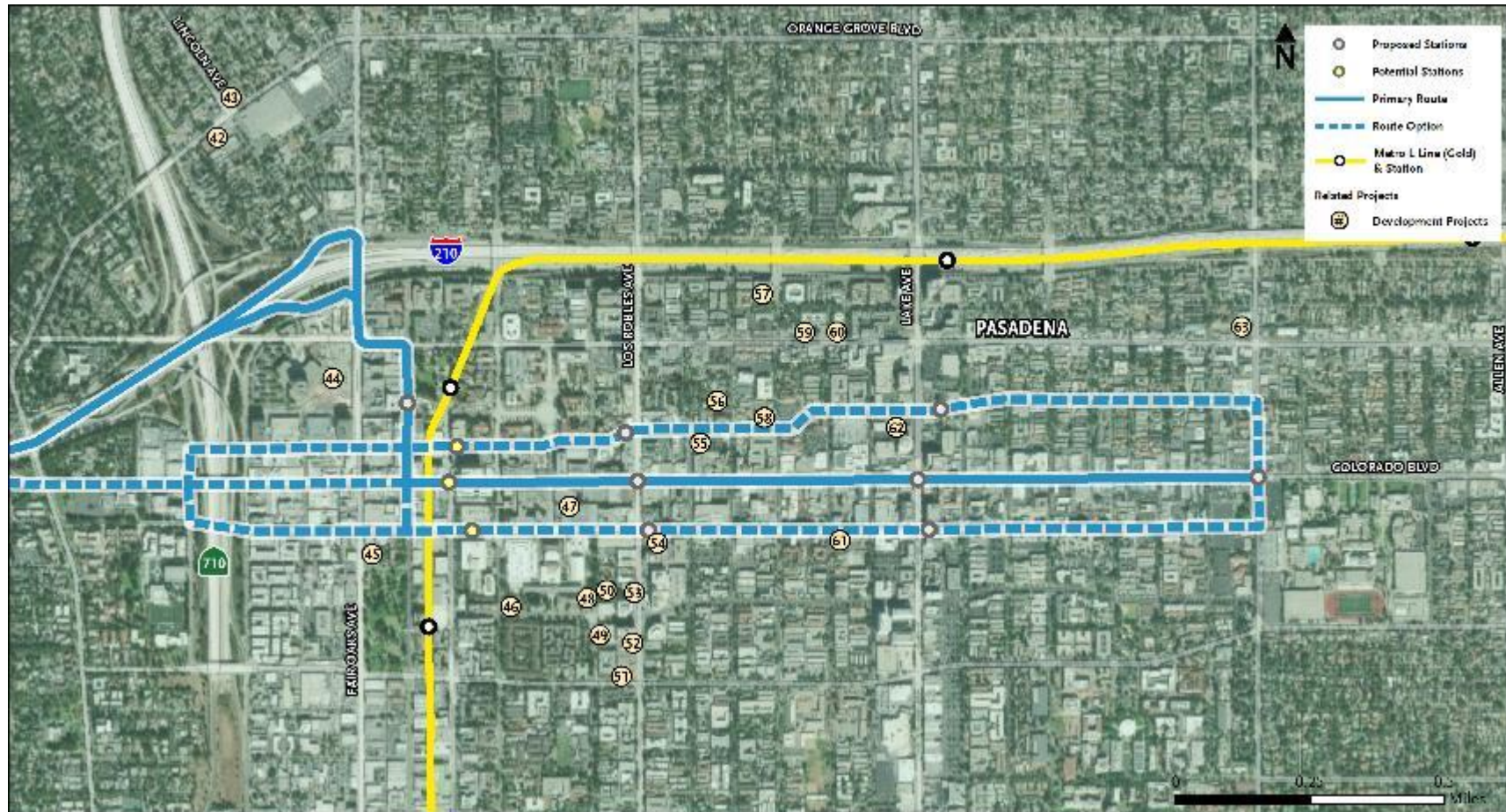




Figure 3c – Related Projects



**Table 7 – Related Projects**

Map ID	Project Name	Location	Description	Status
<b>REGIONAL</b>				
N/A	NextGen Bus Plan	Los Angeles County	The NextGen Bus Plan will revise the existing Metro bus network to improve ridership and make bus use more attractive to current and future riders. The Plan will adjust bus routes and schedules based upon existing origin/destination ridership data with a phased approach to future infrastructure investments in transit convenience, safety, and rider experience.	Implementation early 2021
N/A	East San Fernando Valley LRT Project	San Fernando Valley	New 9-mile LRT line that will extend north from the Van Nuys Metro G Line (Orange) station to the Sylmar/San Fernando Metrolink Station.	Planning
8	North San Fernando Valley BRT Project	San Fernando Valley	New 18-mile BRT line from North Hollywood B/G Line (Red/Orange) Station to Chatsworth.	Planning
32	Los Angeles – Glendale-Burbank Feasibility Study	Amtrak corridor from Los Angeles Union Station to Bob-Hope Airport	Metro is studying a 13-mile transit corridor between Los Angeles Union Station and the Hollywood Burbank Airport. A range of options are under study including both light rail and enhanced commuter rail.	Planning and feasibility
<b>BURBANK</b>				
27	Mixed-Use Development	3700 Riverside Dr.	49-unit residential condominium and 2,000 sq. ft. of retail	Active Project Submission
28	San Fernando Bikeway	San Fernando Blvd. Corridor	Three-mile Class I bike path along San Fernando Blvd. near the Downtown Metrolink Station in the City of Burbank. This project will complete a 12-mile long regional bike path extending from Sylmar to the Downtown Burbank Metrolink Station along the San Fernando Blvd. rail corridor	Planning
29	Commercial Development	411 Flower St.	Commercial building (size unknown)	Active Project Submission
30	Mixed-Use Development	103 Verdugo Ave.	Two mixed-use buildings (size unknown)	Active Project Submission
31	Mixed-Use Development	624 San Fernando Blvd.	42-unit, 4-story mixed-use building with 14,800 sq. ft. of ground-floor commercial	Active Project Submission

Map ID	Project Name	Location	Description	Status
<b>GLENDALE</b>				
33	Multi-Family Development	452 Milford St.	15-unit building	Active Project Submission
34	Multi-Family Development	401 Hawthorne St.	23-unit building	Active Project Submission
35	Commercial Development	340 Central Ave.	14,229 sq. ft. office	Active Project Submission
36	Multi-Family Development	520 Central Ave.	98-unit building	Active Project Submission
37	Commercial Development	611 Brand Blvd.	Hotel (857 hotel rooms and 7,500 sq. ft. of restaurant/retail)	Active Project Submission
38	Multi-Family Development	601 Brand Blvd.	604 units in 3 buildings	Active Project Submission
39	Commercial Development	901 Brand Blvd.	34,228 sq. ft. parking structure for car dealership	Active Project Submission
40	Glendale Streetcar	Downtown Glendale	Streetcar connecting the Larry Zarian Transportation Center with Downtown Glendale	Planning and feasibility
41	Commercial Development	517 Broadway	Medical/office/retail building (size unknown)	Active Project Submission
<b>LOS ANGELES</b>				
1	Multi-Family Development	11525 Chandler Blvd.	60-unit building	Active Building Permit
2	Multi-Family Development	5610 Camellia Ave.	62-unit building	Active Building Permit
3	Multi-Family Development	5645 Farmdale Ave.	44-unit building	Active Building Permit
4	Multi-Family Development	11433 Albers St.	59-unit building	Active Building Permit
5	Mixed-Use Development	11405 Chandler Blvd.	Mixed-use building with residential and commercial components (size unknown).	Active Building Permit
6	Mixed-Use Development	5530 Lankershim Blvd.	15-acre joint development at the North Hollywood Metro Station. Includes 1,275-1,625 residential units (275-425 affordable units), 125,000-150,000 sq. ft. of retail, and 300,000-400,000 sq. ft. of office space	Active Project Submission
7	Mixed-Use Development	11311 Camarillo St.	Mixed-use building (size unknown)	Active Building Permit
9	Multi-Family Development	11262 Otsego St.	49-unit building	Active Building Permit
10	Multi-Family Development	11241 Otsego St.	42-unit building	Active Building Permit
11	Multi-Family Development	11246 Otsego St.	70-unit building	Active Building Permit
12	Mixed-Use Development	5101 Lankershim Blvd.	297 units in a mixed-use housing complex	Active Building Permit
13	Multi-Family Development	5630 Fair Ave.	15-unit building	Active Building Permit
14	Multi-Family Development	5550 Bonner Ave.	48-unit building	Active Building Permit

Map ID	Project Name	Location	Description	Status
15	Commercial Development	11135 Burbank Blvd.	4-story hotel with 70 guestrooms	Active Building Permit
16	Commercial Development	11115 McCormick St.	Apartment/Office building (size unknown)	Active Building Permit
17	Multi-Family Development	5536 Fulcher Ave.	36-unit building	Active Building Permit
18	Multi-Family Development	11111 Cumpston St.	41-unit building	Active Building Permit
19	Multi-Family Development	11050 Hartsook St.	48-unit building	Active Building Permit
20	Multi-Family Development	5525 Case Ave.	98-unit building	Active Building Permit
21	Multi-Family Development	11036 Moorpark St.	96-unit building	Active Building Permit
22	Multi-Family Development	11011 Otsego St.	144-unit building	Active Building Permit
23	Multi-Family Development	10925 Hartsook St.	42-unit building	Active Building Permit
24	Multi-Family Development	10812 Magnolia Blvd.	31-unit building	Active Building Permit
25	Multi-Family Development	5338 Cartwright Ave.	21-unit building	Active Building Permit
26	Multi-Family Development	5252 Willow Crest Ave.	25-unit building	Active Building Permit
<b>PASADENA</b>				
42	Mixed-Use Development	690 Orange Grove Blvd.	48-unit building with commercial space	Active Project Submission
43	Multi-Family Development	745 Orange Grove Blvd.	35-unit building	Active Project Submission
44	Mixed-Use Development	100 Walnut St.	Mixed-use planned development: office building, 93-unit apartment building, and a 139-unit building	Active Building Permit
45	Multi-Family Development	86 Fair Oaks Ave.	87-unit building with commercial space	Active Project Submission
46	Commercial Development	190 Marengo Ave.	7-story hotel with 200 guestrooms	Active Project Submission
47	Multi-Family Development	39 Los Robles Ave.	Residential units above commercial space (size unknown)	Active Building Permit
48	Mixed-Use Development	178 Euclid Ave.	42-unit building with 940 sq. ft. of office space	Active Building Permit
49	Multi-Family Development	380 Cordova St.	48-unit building	Active Building Permit
50	Mixed-Use Development	170 Euclid Ave.	42-unit building with 10,000 sq. ft. of commercial space	Active Project Submission
51	Multi-Family Development	399 Del Mar Blvd.	55-unit building	Active Building Permit
52	Multi-Family Development	253 Los Robles Ave.	92-unit building	Active Project Submission
53	Mixed-Use Development	171 Los Robles Ave.	8-unit building	Active Project Submission
54	Commercial Development	98 Los Robles Ave.	school of medicine building	Active Building Permit
55	Multi-Family Development	530 Union St.	55-unit building with retail space	Active Building Permit
56	Multi-Family Development	119 Madison Ave.	81-unit building	Active Building Permit

Map ID	Project Name	Location	Description	Status
57	Multi-Family Development	289 El Molino Ave.	105-unit building	Active Building Permit
58	Multi-Family Development	99 El Molino Ave.	40-unit building	Active Building Permit
59	Commercial Development	711 Walnut St.	Mixed-use building with condominiums, commercial space, food facility, parking structure (size unknown)	Active Building Permit
60	Commercial Development	737 Walnut St.	42-unit building with commercial space	Active Project Submission
61	Mixed-Use Development	740 Green St.	273-unit building	Active Project Submission
62	Mixed-Use Development	83 Lake Ave.	54-unit building with office space	Active Project Submission
63	Multi-Family Development	231 Hill Ave.	59-unit building	Active Project Submission

**SOURCE:** Terry A. Hayes Associates Inc., 2020.



**North San Fernando Valley (SFV) Bus Rapid Transit (BRT) Project.** The North SFV BRT Project is a proposed new 18-mile BRT line that is intended to serve the portions of the San Fernando Valley that are north of the Metro G Line (Orange) service area. The project would provide a new, high-quality bus service between the communities of Chatsworth to the west and North Hollywood to the east. The project would enhance existing bus service and increase transit system connectivity.

**Joint Development - North Hollywood Station Project.** The Joint Development - North Hollywood Station project would construct facilities at the North Hollywood B/G Line (Red/Orange) Station that would be shared by the Proposed Project. The project has been identified in the Measure M Expenditure Plan, with a projected opening date between Fiscal Year 2023-25 and \$180 million of funding.

**NextGen Bus Plan.** In January 2018, Metro began the NextGen Bus Plan aimed at reimagining the bus network to be more relevant, reflective of, and attractive to the diverse customer needs within Los Angeles County. The NextGen Bus Plan will realign Metro's bus network based upon data of existing ridership and adjust bus service routes and schedules to improve the overall network. The Proposed Project would be included in the Plan and replace some select bus services in the region. The NextGen Bus Plan is anticipated to begin implementation in the beginning of 2021.

**East SFV Light Rail Transit (LRT) Project.** The East SFV LRT Project will be a 9-mile LRT line that will extend north from the Van Nuys Metro G Line (Orange) station to the Sylmar/San Fernando Metrolink Station. Light rail trains will operate in the median of Van Nuys Boulevard for 6.7 miles to San Fernando Road. From San Fernando Road, the trains will transition onto the existing railroad right-of-way that's adjacent to San Fernando Road, which it will share with Metrolink for 2.5 miles to the Sylmar/San Fernando Metrolink Station. The project includes 14 at-grade stations. The Draft EIR/Environmental Impact Statement (EIR/EIS) was published in August 2017 and the Final EIR/EIS is currently being prepared by Metro.

There is an existing cumulative impact in the Project Area related to transportation. The cumulative setting is the regional and local roadway network in addition to the transit network. Future growth and development in the region would generate additional traffic on roadways along the primary alignment, which would adversely affect traffic flow and bus transit service operating in mixed-flow travel lanes. The additional traffic on roadways generated by cumulative projects would increase the temporary construction impacts on circulation. Other projects such as the North Hollywood Station Joint Development (Project I.D. No. 6) could be constructed concurrently with the Proposed Project and impact traffic flow and bus transit. Two projects in the City of Burbank, the Olive Avenue/Sparks Street/Verdugo Avenue Intersection Improvements (Project I.D. 64) and the Olive Avenue Overpass Rehabilitation (Project I.D. 65) propose roadway improvements along the BRT route on Olive Avenue. The Proposed Project proposes spot widening to add a curb-running bus lane through the Olive Avenue/Sparks Street/Verdugo Avenue intersection. It is anticipated that the Proposed Project would be integrated with additional improvements being considered by the City of Burbank. Regarding the Olive Avenue Overpass Rehabilitation, the Proposed Project would designate the outside lane in each direction for bus-only operation at this location and would add a stop with a signalized crosswalk providing access to the existing Burbank Metrolink station. It is

anticipated that the proposed bus lanes and station would be retained should the bridge be improved or replaced as part of the Olive Avenue Overpass Rehabilitation. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

### Construction

Regarding construction activities, the Proposed Project construction would shift along the corridor and construction activities should be of relatively short duration within each segment. Mitigation Measures **TRA-1** through **TRA-4** would ensure that the Proposed Project would not interfere with transit, traffic circulation and access, pedestrian operations and circulation, or bicycle operations and circulation during construction. Mitigation Measure **TRA-6** would reduce potential construction impacts on emergency vehicle access by requiring early notification and coordination with emergency service providers as part of the Traffic Management Plan. Cumulative impacts on pedestrian circulation could occur during construction from temporary closure of sidewalks along the corridor and near and adjacent to the proposed BRT stations. It is unlikely that the construction phase would result in considerable cumulative impacts on pedestrian facilities. Cumulative impacts on bicycle circulation could occur during construction due to temporary closure or rerouting of bicycle facilities along the corridor. Additionally, since a Traffic Management Plan, consistent with Mitigation Measures **TRA-1** through **TRA-4** and **TRA-6**, would be required for the Proposed Project to address potential construction-related traffic impacts, it is anticipated that there would be no remaining impacts. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

### Operations

Regarding operational activities, the Proposed Project would generally include a combination of dedicated bus lanes (running along the center, median, side or curb lane) and mixed traffic operations. It is not expected that the cumulative projects would substantially diminish pedestrian circulation along the corridor and result in significant cumulative impacts. The related projects, independent of the Proposed Project, are not expected to result in the removal of bicycle lanes or any other operational adverse cumulative impacts on bicycle lanes. The Proposed Project is expected to decrease VMT and is also aligned with long-term environmental goals and relevant plans for the region and municipalities. Since the Proposed Project has a finding of less-than-significant for VMT, the Project would also imply a less than significant cumulative impact for VMT. Cumulative impacts from the implementation of other projects are not expected to substantially increase hazards due to a geometric design feature or incompatible uses, as other projects would be expected to adhere to applicable design criteria and standards and be subject to regulatory permitting. The future cumulative growth and resulting increase in traffic and congestion along the corridor could increase emergency response times. However, because the dedicated bus lanes would be free of most vehicular traffic and emergency vehicles will be permitted to use the dedicated bus lanes, emergency response time under cumulative conditions would be no worse than under current conditions and would likely be improved. Mitigation Measure **TRA-5** would ensure that the Proposed Project is designed in a manner that is consistent with Mobility Plan 2035 avoiding potential conflicts between the Proposed Project operations and bicycles. Therefore, the Proposed Project would not have a cumulatively considerable contribution in a significant cumulative impact on emergency access.

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## 10. List of Preparers

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