5. CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual effects resulting from a project or a number of projects that, when considered together, are considerable or will compound other environmental impacts. CEQA Guidelines Section 15130(a) requires that an EIR shall 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.

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." Pursuant to CEQA Guidelines Section 15130, subdivision (a), the analysis of cumulative impacts is only necessary if the impact is significant and the project's incremental effect is cumulatively considerable. If the lead agency determines that a project's incremental effect is not cumulatively considerable, the EIR need only briefly describe the basis for its findings.

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, regional transportation plan, or plans for reducing greenhouse gas emissions.

5.1 METHODOLOGY

The assessment presented below addresses the potential effect of the Proposed Project in combination with the Related Projects or in combination with adopted growth projections. Cumulative impacts for each environmental resource are assessed using the following approach:

- Decide if the Related Projects list or Plans/Projections method is more appropriate for each environmental resource.
- Identify the study area for the cumulative impact analysis for each environmental resource.

- Determine whether the Proposed Project's incremental effects in combination with Related Projects' effects or Plans/Projections growth and development would result in a significant cumulative impact.
- Determine whether the Proposed Project's incremental contribution to the cumulative impact is considerable.
- If the Proposed Project's incremental contribution to a significant cumulative impact is cumulatively considerable , determine whether the Proposed Project's contribution would be less than cumulatively considerable due to implementation of proposed mitigation measures.

Except for GHG emissions, which is inherently a cumulative impact, cumulative impacts for each resource are determined by assessing if there is an existing cumulative impact and, if so, whether the Proposed Project's incremental contribution to that significant impact is cumulatively considerable. If it is determined that the Proposed Project combined with the Related Projects could result in a significant cumulative impact, then the Proposed Project's incremental contribution is evaluated to determine whether it would be cumulatively considerable. If the combined impact of the Proposed Project with the Related Projects would not be significant, no analysis of the Proposed Project's incremental contribution is necessary. GHG emissions are assessed using consistency with projections in planning documents.

Table 5-1 shows the significance of the Proposed Project's impacts on each environmental topic evaluated in the Draft EIR.

Table 5-1 – Impact Summary for Cumulative Analysis

Environmental Topic	Project-Specific Impact?	Potential for Cumulative Impact?
Agricultural and Forestry Resources Hydrology and Water Quality Mineral Resources Population and Housing Public Services Recreation Utilities and Service Systems Wildfire	None	No
Greenhouse Gas Emissions	No	Yes (Existing Cumulative Impact) – Further Assessed Below
Air Quality Energy Resources Land Use and Planning	Less-Than-Significant	Yes – Further Assessed Below
Aesthetics Biological Resources Geology and Soils Hazards and Hazardous Materials Noise Cultural Resources Transportation Tribal Cultural Resources	Less-Than-Significant with Mitigation	Yes – Further Assessed Below

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

5.2 RELATED PROJECTS

Related Projects that are considered in the cumulative impact analysis are those projects that may occur in the Project 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 are depicted graphically in **Figure 5-1a** through **Figure 5-1c** and listed in **Table 5-2**. The figures do not show Eagle Rock as no related projects have been identified in the Project Area. Related projects of particular relevance to the Proposed Project are discussed below.

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 could be shared by the Proposed Project, if the Metro Board approves 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. The Joint Development would be constructed without the Proposed Project and has independent utility as a land use development project.

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.

Figure 5-1a - Related Projects

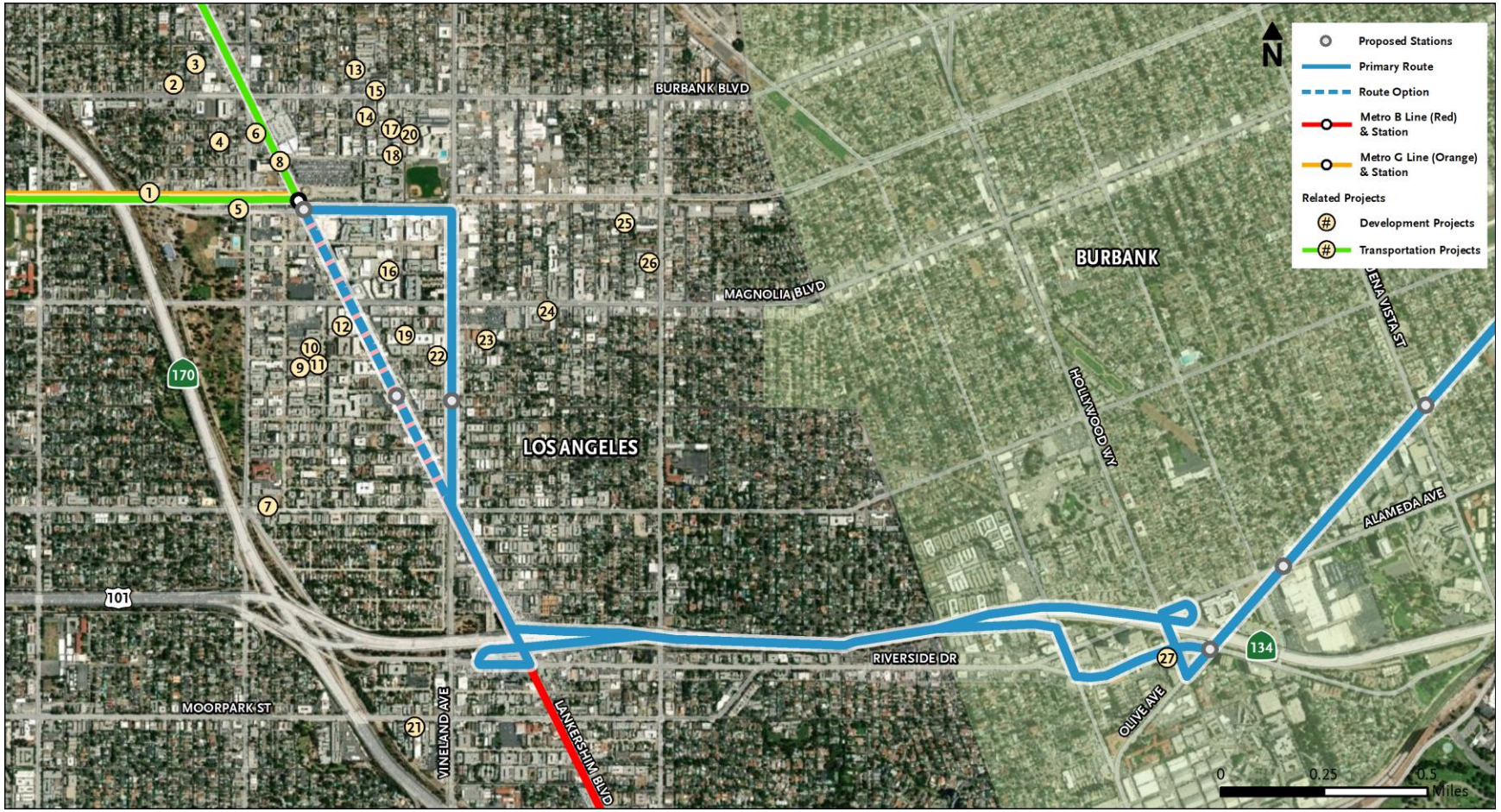

Figure 5-1b - Related Projects

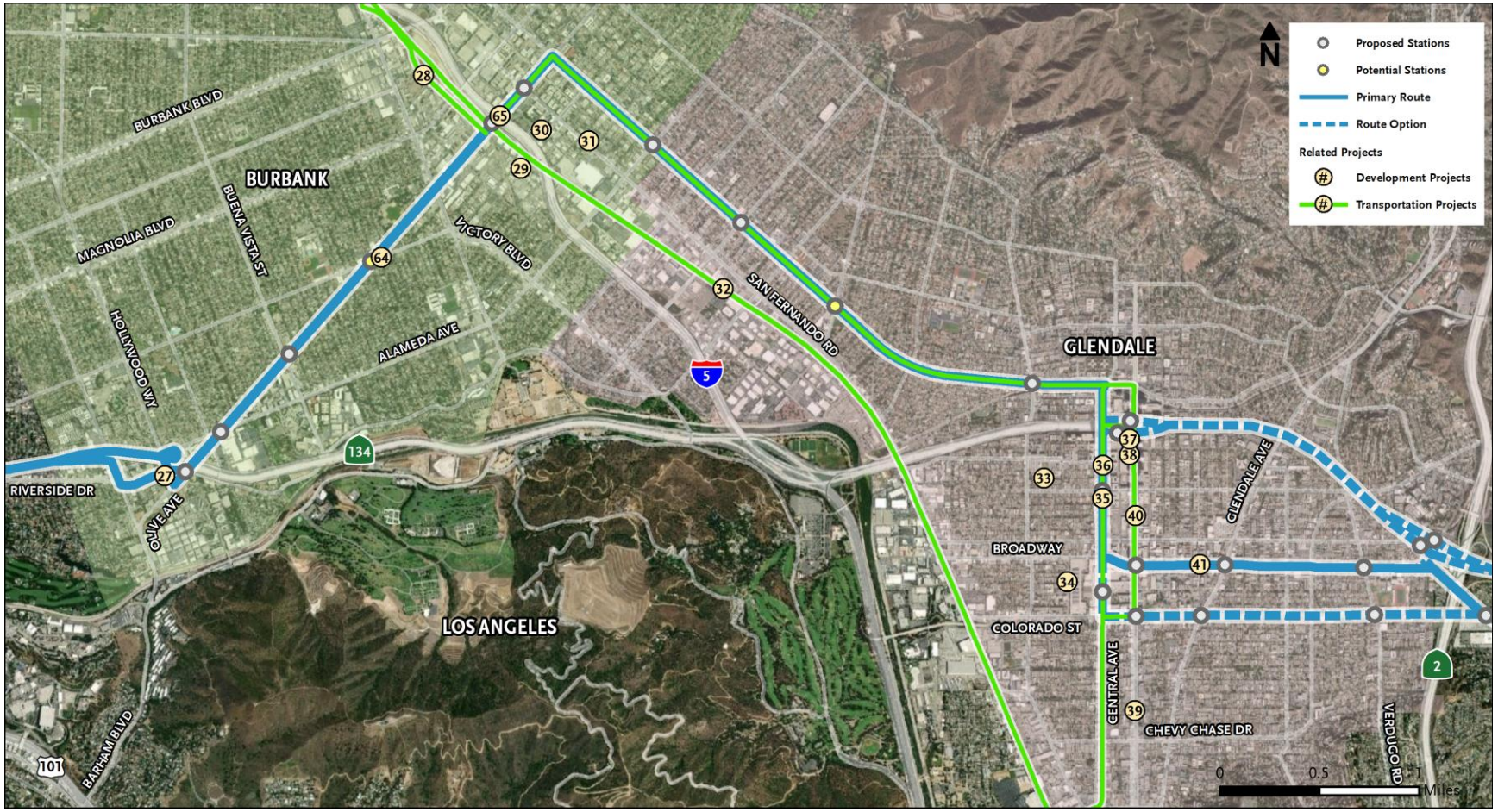

Figure 5-1c - Related Projects

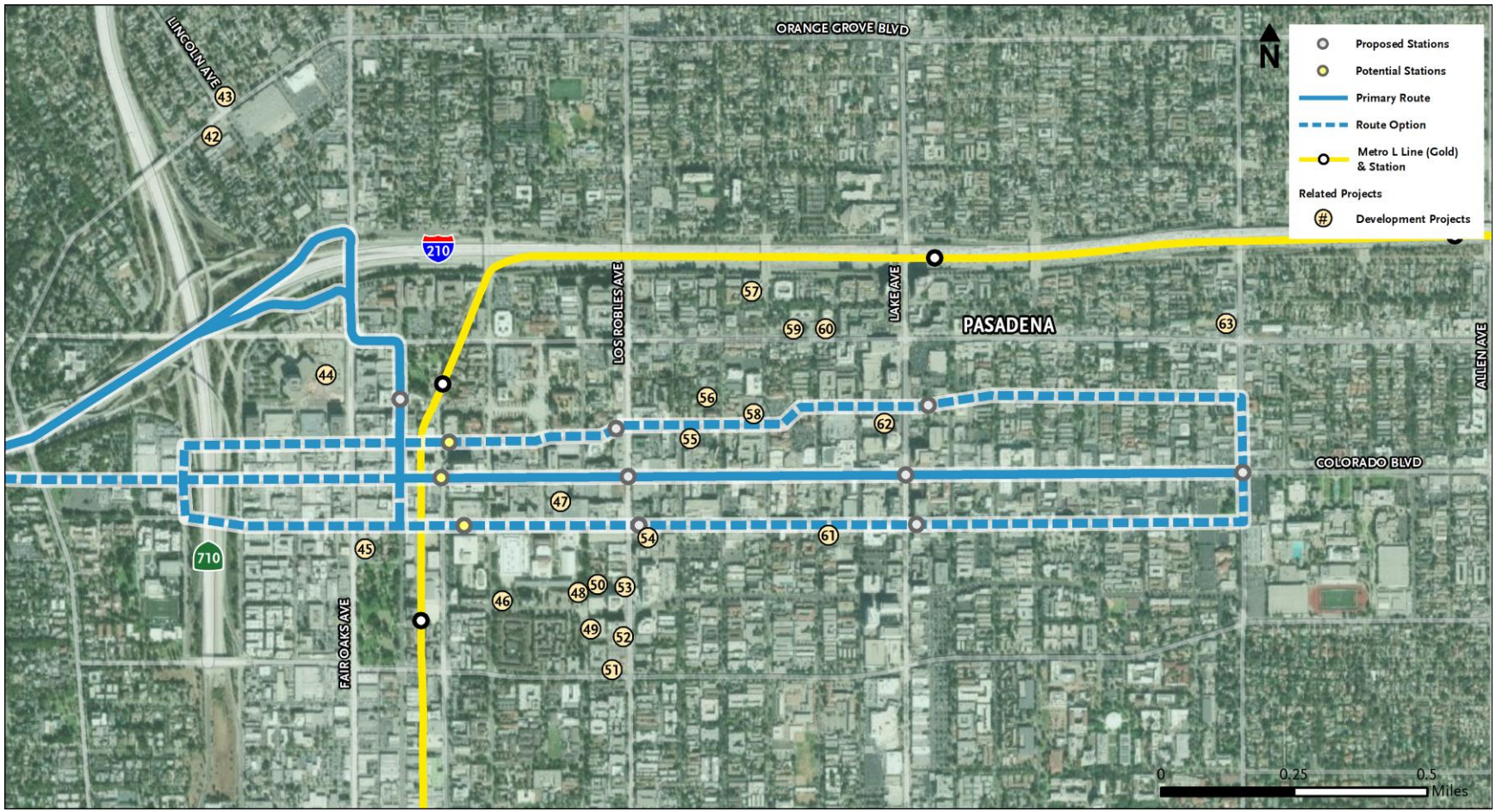

Table 5-2 - Related Projects

Map ID	Project Name	Location	Description	Status
REGIONAL				
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
BURBANK				
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
64	Olive Ave./Sparks St./Verdugo Ave. Intersection Improvements	Olive Ave./Sparks St./Verdugo Ave.	Various intersection improvements.	Planning
65	Olive Ave. Overpass Rehabilitation	Olive Ave. over Interstate 5	Improvements to operational efficiency, pedestrian safety, and bicycle connections.	Planning
GLENDALE				
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
LOS ANGELES				
N/A	Orange Line Transit Neighborhood Plan	North Hollywood, Van Nuys, and Sepulveda BRT Stations	Develop regulatory tools and strategies for the areas around these three G Line (Orange) stations to encourage transit ridership, enhance the urban built environment, and focus new growth and housing in proximity to transit and along corridors	Undergoing Environmental Review
N/A	Take Back The Boulevard Initiative	Colorado Blvd.	The mission of the Take Back the Boulevard initiative is to serve as a catalyst for the community-driven revitalization of Colorado Boulevard in Eagle Rock. The Take Back the Boulevard initiative seeks to utilize broad community feedback and involvement to make this central corridor through Eagle Rock a safe, sustainable, and vibrant street in order to stimulate economic growth, increase public safety, and enhance community pride and wellness.	Active Initiative

Map ID	Project Name	Location	Description	Status
N/A	Colorado Blvd. Specific Plan	Colorado Blvd.	It is the purpose of this Specific Plan to ensure that future development in the Specific Plan area occurs in a manner which is compatible with the surrounding residential community and with the capacity of the circulation system.	Active Plan
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	North Hollywood Station Joint Development	5530 Lankershim Blvd.	15-acre joint development at the North Hollywood Metro Station. Includes 1,275-1,625 residential 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
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

Map ID	Project Name	Location	Description	Status
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
PASADENA				
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
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.

5.3 CUMULATIVE IMPACT ANALYSIS

Aesthetics

There is an existing cumulative impact in the Project Area related to aesthetics and visual resources. The cumulative setting is the Project Area and existing views from the affected roadways. Past projects have resulted in a highly urbanized landscape from the construction of buildings, transportation infrastructure, and other structures that have adversely affected scenic vistas, scenic resources, and visual character and quality. In addition, other present or reasonably foreseeable future projects could result in the loss of visual resources, particularly street trees and historic buildings, though this is unlikely as the related projects mostly consist of infill development projects that would not drastically change the existing setting. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, the presence of construction vehicles, equipment, visual signs of construction, and personnel would present visually disruptive elements but would be temporary. Construction activities could include station construction, street reconstruction, tree removal, and street restriping. Effects to visual resources (e.g., scenic vistas, visual character and light/glare) would be temporary and not significant given the nature of construction activities and general lack of high-quality vistas within the Project Area. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the primary visual elements of the Proposed Project include the addition of BRT vehicles, changes to existing parking and vehicle lanes, bus stations and platforms, curb and sidewalk modifications, and changes to street configurations including bus-only lanes, new or relocated bus stops, and modifications to existing medians. The Proposed Project would result in permanent alterations to the street where bus lanes are proposed and along sidewalks and medians at the locations of station platforms. Mitigation Measures **VIS-1** and **VIS-2** would reduce potential visual impacts by requiring site-specific public art and streetscape beautification. Effects to visual resources (e.g., scenic vistas, visual character and light/glare) would not be significant with mitigation. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Air Quality

There is an existing cumulative impact in the Project Area related to air quality. The cumulative setting is the SCAB. The Los Angeles County portion of the SCAB is currently designated nonattainment of the NAAQS for eight-hour average O_3 and 24-hour average $PM_{2.5}$ and the CAAQS for O_3, PM_{10}, and $PM_{2.5}$. Therefore, consideration should be given to emissions of particulate matter and ozone precursors in the context of the existing cumulative conditions. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, the SCAQMD has promulgated guidance that if daily emissions generated by construction or operation of a project remain below the regional mass daily thresholds, those emissions would not result in a significant air quality impact either at the project level or under regionally cumulative considerations. Conversely, if construction or operation of the project would generate emissions exceeding the project-level mass daily thresholds, and would remain above the thresholds with mitigation, those emissions would be considered cumulatively significant in addition to being significant at the project level. Regarding construction, as discussed in Section 3.3, Air Quality, the Proposed Project would not generate emissions that would exceed SCAQMD localized or regional significance thresholds. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the Proposed Project would not generate emissions that would exceed SCAQMD localized or regional construction emissions. The Proposed Project would reduce VMT and associated transportation criteria air pollutant emissions in the Project Area (with a slight increase in PM_{10} emissions). Automobile trips would be replaced with zero-emissions, electric buses. The Proposed Project would be consistent with the 2016 AQMP as well as each city's General Plan. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Biological Resources

There is an existing cumulative impact in the Project Area related to biological resources. The cumulative setting for special-status plants is Coastal Sage Scrub community. The cumulative setting for bat species is considered bat roosting habitat within California because some of the bat species with potential to be in the Project Area are migratory and could be found in various counties throughout the State. The cumulative setting for bird species is considered nesting and foraging habitat within trees within the North Hollywood to Pasadena BRT Corridor. Existing and continuing development contributes to cumulative impacts on plants, bats, and bird species. Habitat removal from current and future development in the Project Area is the biggest threat to plants, bats, and bird species. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, the Proposed Project would include creating bus stops, restriping existing roadway, and other roadway modifications (i.e. removal of existing medians) and would not contribute to development in the Project Area. The Proposed Project could result in temporary impacts on plants, bats, and bird species through the removal of street trees to construct stations. Mitigation Measure **BIO-1** would mitigate inadvertent impacts to biological resources during construction activities by ensuring compliance with the Migratory Bird Treaty Act and California Fish and Game Code (Sections 2126, 3503, 3513, and 3800). Effects to biological resources (e.g., plant and wildlife species) would not be significant with mitigation. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the Proposed Project would not affect the Coastal Sage Scrub community along SR-134. In addition, there is already a high level of human activity, night lighting, and noise in the BSA and the Proposed Project would not increase levels of human activity, night lighting, or noise in the BSA. Therefore, operation of the Proposed Project would not result in impacts on any species identified as a candidate, sensitive, or special-status. Once construction is complete, no additional removal of trees would be required; therefore, project operation would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Cultural Resources

Historic Resources. There is an existing cumulative impact in the Project Area related to historic resources. The cumulative setting is the public right-of-way for the length of the entire alignment, except at possible station platform locations, where the survey area was increased to include properties abutting the right-of-way within approximately 100 feet of the proposed station platform footprint. There was a total of 23 designated properties (listed in the National, California, and/or local register), including 16 contributors to historic districts, and 29 properties previously surveyed and evaluated as potentially eligible (for listing in the National, California, and/or local Register), including eight that are contributors to a potential historic district. An additional six potentially significant properties were identified through site reconnaissance efforts conducted for the Proposed Project.

During construction and operational activities, the Proposed Project has the potential to affect historic streetlights on Central Avenue and Broadway in the City of Glendale that are within proposed station platform footprints and historic buildings in the Cities of Los Angeles, Burbank, Glendale, and Pasadena that are immediately adjacent to proposed station platform footprints. Mitigation Measure **CUL-1** would mitigate impacts to historic resources by ensuring that the Proposed Project design would be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties Rehabilitation Standards. Effects to historic resources would not be significant with mitigation. Therefore, the Proposed Project construction and operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Archaeological and Paleontological Resources. There is an existing cumulative impact in the Project Area related to archaeological and paleontological resources. The cumulative setting is the areas of potential disturbance. Most of the Related Projects are development or transportation projects, whose construction could include excavation that could disturb buried archaeological resources, paleontological resources, and human remains, if extant. Although much of the Project Area is developed and paved, there is a potential for buried archaeological and paleontological deposits to exist. The potential for an individual project to impact significant archaeological and paleontological resources is unknown but it is possible that cumulative growth and development in the Project Area could have impacts on significant archaeological

and paleontological resources. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, earthwork activities could result in the finding of buried archaeological and paleontological resources. Mitigation Measure **CUL-2** would mitigate inadvertent impacts to potential subsurface archaeological deposits during construction activities. Paleontological resources have been recorded from the subsurface of the Project Area and Project Vicinity. However, due to the minimal amount of deep excavation with the potential to encounter native sediments with high paleontological potential (i.e., Pleistocene-age older sedimentary deposits [Qoa, Qof] and Miocene-age Topanga Formation [Ttsc, Ttqdb]), the Proposed Project would not significantly impact paleontological resources. Effects to archaeological and paleontological resources (e.g., plant and wildlife species) would not be significant with mitigation. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the potential to disturb archaeological and paleontological resources is only possible during construction activities. There is no potential for the surface-running BRT to encounter archaeological or paleontological resources. Therefore, the Proposed Project operational activities would not contribute to the existing cumulative impact.

Energy Resources

There is an existing cumulative impact in the Project Area related to energy resources. The cumulative setting is both regional and statewide. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of nonrenewable energy to reduce pollution that contributes to global warming. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, the Proposed Project would consume approximately 1,091,350 gallons of diesel fuel through off-road equipment engine combustion, approximately 3,875 gallons of diesel fuel through on-road truck engine combustion, and approximately 14,331 gallons of gasoline through on-road worker vehicle engine combustion. Annual average petroleum-based fuels consumption during construction activities would be approximately 438,090 gallons of diesel fuel and 5,733 gallons of motor gasoline. Los Angeles County retail sales of diesel fuel and gasoline in 2018 were approximately 253 million gallons and 3,658 million gallons, respectively. Relative to existing petroleum-based transportation fuels consumption in Los Angeles County, construction of the Project would temporarily increase annual diesel fuel consumption within the County by approximately 0.17 percent and would temporarily increase annual gasoline fuel consumption by approximately 0.0002 percent. All equipment and vehicles that would be used in construction activities would comply with applicable CARB regulations, the Pavley and Low Carbon Fuel Standards, and the Corporate Average Fuel Economy Standards. The Proposed Project would adhere to the provisions of the Metro Green Construction Policy to control and minimize emissions to the maximum extent

feasible. Adherence to the energy reduction policies and the relatively low use of energy resources for construction ensure that the Proposed Project would not result in a significant impact. The Proposed Project would also be consistent with GHG reduction plans. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the Proposed Project would result in changes (net benefits) to energy resources consumption through direct electricity demand for ZEV bus propulsion and indirect, reduction of transportation fuels combustion from passenger vehicles on the regional roadway network. Using Metro's electric bus fuel economy of 2.2 kWh per mile, annual electricity consumption would be approximately 3,554.5 MWh in 2042. Metro 2019 system operations consumed 323,391 MWh of electricity. Based on 2019 Metro usage, operations would increase systemwide electricity consumption by 1.1 percent. The annual electricity consumption of 3,554.5 MWh would equal approximately 12,796,186 MJ of electrical power demand. In addition to direct energy consumption, implementation of the Proposed Project would reduce on-road regional VMT. Implementation of the Proposed Project would reduce annual VMT by over 30 million, and would decrease regional gasoline and diesel fuels consumption by 755,140 gallons and 168,608 gallons, respectively. The effects of Proposed Project operations would reduce regional petroleum-based energy consumption and would improve regional transportation energy efficiency. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Geology and Soils

There is an existing cumulative impact in the Project Area related to geology and soils as the entire Southern California region is subject to risks associated with seismic activity and any past, present, or reasonably foreseeable development in the region carries potential risk of seismic-related impacts. The cumulative setting is the Southern California region which includes the Cities along the Project corridor. The seismic context is an important consideration because the ground shaking forces are regional in nature. The potential for a seismic event including landslide is the primary cumulative consideration for geology and soils. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, the Proposed Project would not involve substantial earthmoving along slopes, such that existing landslide risks would be worsened or exacerbated. Therefore, no construction impact would occur related to seismic activities, including landslides. The Proposed Project would be designed based on the latest versions of local and State building codes and regulations in order to counteract erosion. There is no potential for the surface-running BRT to result in substantial soil erosion or the loss of topsoil or risk from expansive soils. Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the Proposed Project would be located in a seismically active region. There is potential for operational activities to be influenced by earthquakes and related effects, such as ground shaking and liquefaction. Mitigation Measure **GEO-1** would mitigate inadvertent impacts to geology and soils during construction activities by ensuring the Proposed Project is designed to limit potential seismic impacts. Effects to geology and soils would not be significant with mitigation. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Greenhouse Gas Emissions

There is an existing cumulative impact in the Project Area related to GHG emissions. The cumulative setting is both regional and statewide. The State of California, through AB 32 and SB 32, has acknowledged that GHG emissions are a statewide impact. Emissions generated by the Proposed Project combined with past, present, and reasonably probable future projects could contribute to this impact. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative in nature and should be analyzed in the context of CEQA's existing cumulative impacts analysis. The OPR acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

Per guidance from the SCAQMD, construction amortized annually and operational emissions are considered together over a 30-year period. The Proposed Project would reduce VMT and associated transportation GHG emissions in the Project Area. CO_2e emissions would be reduced by approximately 54 million metric tons per year. Automobile trips would be replaced with zero-emissions, electric buses. The Proposed Project and Route design options would be consistent with the goals and policies of applicable GHG reduction plans in the Plan Area including SCAG's RTP/SCS, CARB's 2017 Scoping Plan, Metro Climate Action and Adaptation Plan 2019, Los Angeles Green New Deal, City of Burbank GGRP, Greener Glendale Plan, and the City of Pasadena CAP. Each of these plans is, in and of itself, a GHG reduction plan aimed to reduce cumulative GHG emissions at the local level and beyond. Therefore, the Proposed Project would not have a cumulatively considerable contribution to the existing cumulative impact.

Hazards and Hazardous Materials

There is an existing cumulative impact in the Project Area related to hazards and hazardous materials. The cumulative setting is a one-mile band along the corridor. There are known hazardous sites in the Project Area and associated remediation efforts. Database searches revealed 469 environmental concern sites within one mile of the Proposed Project route, including 115 permitted underground storage tanks, 331 cleanup sites, and 23 sites of historical concerns. This includes two sites in the Cortese database of hazardous sites maintained by the Department of Toxic Substances Control. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction, it is not anticipated that any of the environmental concern sites would be disturbed by construction activities. Construction activities would involve minimal ground disturbance and excavation. Construction activities could result in the discovery of unanticipated contamination at known release sites, potential environmental concern sites, or historical environmental concern sites. The handling, transport, and disposal of all hazardous materials encountered during construction would be done according to federal, State, and local regulations. As previously discussed, the SCAQMD regulates disposal of asbestos (Rule 1403) and contaminated soils (Rule 1166). Therefore, the Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operations, vehicle maintenance activities would require the use of detergents and cleansers. The potential for exposure to these hazards and hazardous materials would be limited to the existing Metro facilities. Metro facilities are staffed with personnel trained in hazardous materials emergencies. Metro staff is available 24-hours a day through the Quality Assurance Department to respond to hazardous materials releases, and Metro sites frequently undergo emergency response drills. There would be no hazardous emissions associated with operations of the Proposed Project. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Land Use and Planning

There is no existing cumulative impact in the Project Area related to land use and planning. The existing setting does not include a significant physically divided community and existing land uses are consistent with current land use plans. The Cities of Los Angeles, Burbank, Glendale, and Pasadena regulate land uses along the alignment. The Land Use Plans are updated as necessary to reflect current land use and planning policies supported by State, regional, and local jurisdictions. Therefore, there is no cumulative impact related to land use and planning resulting from past, present, and reasonably foreseeable projects.

The Proposed Project would not physically divide an established community. In addition, the Proposed Project would be compatible with the land use plans, goals, and policies adopted by the regional and local jurisdictions within the Project Area. While it is anticipated that land uses in the Project Area will change over time to address growing population and regional demands for infrastructure and services, individual City jurisdictions and metropolitan planning organizations such as SCAG are responsible for planning such development. Land uses surrounding the Proposed Project stations may intensify due to TOD pressures and zoning initiatives that have been planned and encouraged by the Project Area cities including the Cities of Los Angeles, Glendale, Burbank, and Pasadena. This growth pattern would be consistent with regional planning efforts to focus future growth in areas served by transit to address environmental concerns related to climate change and availability of services and infrastructure to meet future demand. Accordingly, the Proposed Project would be consistent with regional and local plans aimed at improving regional mobility and focusing growth in areas well served by transit. Therefore, the Proposed Project would not have no potential to create or contribute to a cumulative impact related to land use and planning.

Noise

There is an existing cumulative impact in the Project Area related to noise as existing noise levels adjacent to roadways exceed the State Land Use and Noise Compatibility Guidelines. The cumulative setting for noise is adjacent to the right-of-way. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to control noise levels and reduce community exposure. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction, the Proposed Project could increase ambient noise levels by approximately 15 dBA L_{eq} near any of the potential 23 station construction sites along the alignment, generating significant increases before mitigation measures are applied. Mitigation Measure **NOI-1** would reduce the impact to less than significant by requiring noise monitoring and control measures when levels exceed allowable standards. Therefore, Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operations, the Proposed Project would reduce VMT and associated transportation noise from operation of motor vehicles in the Project Area as people shift to public transit. As a result, even with the addition of BRT service, permanent increases in noise would be minimal and not significant. Therefore, the Proposed Project operational activities would not have a cumulatively considerable contribution to the existing cumulative impact.

There is no cumulative vibration impact in the Project Area and the Proposed Project would not result in a significant vibration impact with implementation of Mitigation Measure **NOI-2** for construction activities. There is no potential for the Proposed Project to contribute to a cumulative impact.

Transportation

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 Ave./Sparks St./Verdugo Ave. 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.

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.

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.

Tribal Cultural Resources

There is an existing cumulative impact in the Project Area related to tribal cultural resources. The cumulative setting is the areas of potential disturbance. The Kizh Nation, Fernandeno Tataviam, and Gabrieleno/Tongva San Gabriel Band of Mission Indians tribal representatives identified areas of high sensitivity within the Project Area; however, no known tribal cultural resources were identified through the AB 52 consultation process. Most of the Related Projects are development or transportation projects, whose construction could include excavation that could disturb buried tribal cultural resources, if extant. Although much of the Project Area is developed and paved, there is a potential for buried tribal cultural resources deposits to exist. The potential for an individual project to impact significant tribal cultural resources is unknown but it is possible that cumulative growth and development in the Project Area could have impacts on significant tribal cultural resources. The Proposed Project combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact.

Regarding construction activities, earthwork activities could result in the finding of buried tribal cultural resources. Mitigation Measure **CUL-1** would mitigate inadvertent impacts to potential subsurface tribal cultural resources during construction activities by ensuring proper treatments. Effects to tribal cultural resources would not be significant with mitigation. Therefore, Proposed Project construction activities would not have a cumulatively considerable contribution to the existing cumulative impact.

Regarding operational activities, the potential to disturb tribal cultural resources is only possible during construction activities. There is no potential for the surface-running BRT to encounter tribal cultural resources. Therefore, the Proposed Project operational activities would not contribute to the existing cumulative impact.