Ontario International Airport Connector Project

ONTCONNECTOR

ENVIRONMENTAL ASSESSMENT

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San Bernardino County Transportation Authority
Ontario International Airport
Connector Project

In San Bernardino County

ENVIRONMENTAL ASSESSMENT

Pursuant to

National Environmental Policy Act (42 U.S.C. §4332) 49 U.S.C. Chapter 53, 16 U.S.C. §470, 23 CFR Part 771, 23 CFR Part 450, and Executive Order 12898; and

by the

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL TRANSIT ADMINISTRATION

and

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

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EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

This document is an Environmental Assessment (EA) for a proposed connection between the Southern California Regional Rail Authority (SCRRA) Cucamonga Metrolink Station and Ontario International Airport (ONT). This chapter discusses: (1) the EA background, (2) alternatives considered, (3) the environmental review process required under National Environmental Policy Act (NEPA), (4) the affected environment, and (5) a summary of anticipated environmental effects and proposed mitigation measures. The proposed ONT Connector Project (Project), including the Build Alternative and No Build Alternative, are described in detail in Chapter 2.

Introduction

The San Bernardino County Transportation Authority (SBCTA) proposes to construct a 4.2-mile-long transit service tunnel directly connecting the SCRRA Cucamonga Metrolink Station with ONT. The Build Alternative proposes to expand access options to ONT by providing a direct transportation connection from Cucamonga Metrolink Station to ONT. The proposed Project area is defined as those areas anticipated to be disturbed during construction of the Build Alternative and is located in the City of Rancho Cucamonga and the City of Ontario within San Bernardino County (County).

The Build Alternative would provide a direct airport connection to ONT from Cucamonga Metrolink Station to support ONT's projected growth. Transit facilities would be constructed, including stations to serve Cucamonga Metrolink Station, ONT Terminal 2, and ONT Terminal 4; a maintenance and storage facility (MSF) to store and maintain vehicles; and an emergency access and ventilation (vent) shaft to provide a means of emergency passenger egress and first responder access. This new connection would increase mobility and connectivity for transit patrons; improve access to existing transportation services; provide a connection to future Brightline West service to/from ONT; and support the use of clean, emerging technology for transit opportunities between Cucamonga Metrolink Station and ONT.

Under NEPA, a proposed Project is the activity that is subject to the federal action. The proposed Project is subject to federal and state environmental review requirements pursuant to NEPA and California Environmental Quality Act (CEQA). The Federal Transit Administration (FTA) is the lead agency for NEPA, as SBCTA plans to seek federal funding for the proposed Project from FTA. SBCTA is the lead agency under CEQA. Partner agencies include Ontario International Airport Authority, Omnitrans, the City of Ontario, and the City of Rancho Cucamonga.

Background

Several transit concepts that could connect to ONT have been evaluated, screened, and refined since 2008. Previous studies and efforts have assessed the feasibility of such a connection and evaluated the performance of several transit concepts, with distinct alignments and configurations.

Building on the findings of previous studies and efforts, SBCTA initiated the environmental phase for the SBCTA Tunnel Loop Project, now known as the ONT Connector Project, in 2022. Additional information on the background of the ONT Connector Project is included in Section 1.2, Section 2.4, and Appendix C of this EA.

Project Outreach

Public outreach for the proposed Project included notifying 70 key stakeholders of the proposed Project, including municipal, county, regional, state, and federal agencies; community organizations; municipal, state, and federal elected officials; resource groups; and transportation agencies. To maximize public awareness, a variety of noticing methods were implemented in advance of the Public Scoping Meetings. These methods included mailing bilingual notices, electronic distribution (e-blasts), social media posts (@goSBCTA Facebook, Instagram, and Twitter accounts), and newspaper advertisements.

A virtual public scoping meeting was held on Wednesday, July 20, 2022, from 6:00 p.m. to 7:00 p.m., via Zoom. The meeting provided agencies and the public with an opportunity to receive proposed Project updates and submit formal oral comments. Comments received included comments requesting general information about the proposed Project and concerns related to the alignment, funding, traffic, operations, air quality, safety and security, construction effects, water quality, land use, noise and vibration, outreach, and utilities.

PURPOSE AND NEED

Project Purpose

The purpose of the proposed Project is to expand access options to ONT by providing a direct transportation connection from Cucamonga Metrolink Station to ONT. This new connection would increase mobility and connectivity for transit patrons, improve access to existing transportation services, provide a connection to future Brightline West service to/from ONT, and support the use of clean, emerging technology for transit opportunities between Cucamonga Metrolink Station and ONT. More specifically, the proposed Project's objectives are as follows:

- Expand access options to ONT by providing a convenient and direct transit connection between ONT and the Cucamonga Metrolink Station;
- Reduce roadway congestion by encouraging a mode shift to transit from single-occupancy vehicles and provide reliable trips to and from ONT; and
- Support the use of clean emerging technology opportunities between the Cucamonga Metrolink Station and ONT.

Project Need

The proposed Project need includes:

- Lack of direct transit connection coinciding with Metrolink trains and peak airport arrival and departure schedules;
- Roadway congestion affecting trip reliability and causing traffic delays;
- High number of vehicle miles traveled resulting from ONT travelers and lack of a direct transit connection; and
- Increasing greenhouse gas emissions within communities surrounding ONT from vehicle travel to and from ONT.

ALTERNATIVES CONSIDERED

The EA discusses alternatives to the proposed Project, including the No Build Alternative, and identifies other alternatives considered. The Build Alternative was identified because it met the most performance criteria (including the capacity for growth) and would best meet the purpose and need of the proposed Project. Environmental review under NEPA must consider the effects of not implementing the Build Alternative. Therefore, the Build Alternative and the No Build Alternative are analyzed in the EA.

No Build Alternative

NEPA requires consideration of the No Build Alternative and the environmental effects of not implementing a proposed Project. The No Build Alternative would have no new direct transportation connection from Cucamonga Metrolink Station to ONT. There would be no direct, last-mile connections between nearby Metrolink stations and ONT. The limited public transportation (bus line) to ONT provided by Omnitrans would remain as it currently exists. The No Build Alternative assumes that the existing roadway system near ONT (such as Interstate 10 and Interstate) will implement some planned expansion and improvement projects and undergo routine maintenance activities. As a result, the No Build Alternative would not achieve the proposed Project's Purpose and Need (as previously discussed) and would not address the proposed Project's goals and objectives.

Build Alternative

The Build Alternative would have the construction of a 4.2-mile-long transit service tunnel alignment, three passenger stations, one MSF, and one access and vent shaft. The Build Alternative would directly connect the Cucamonga Metrolink Station, located in the City of Rancho Cucamonga, to ONT, located in the City of Ontario. Autonomous electric vehicles would be in operation to transport passengers to and from the stations, providing direct access from Cucamonga Metrolink Station to ONT.

The Build Alternative includes three passenger stations. One station would be located in the northwestern corner of the existing Cucamonga Metrolink Station parking lot, and two would be located within two of the existing parking lots at ONT, specifically Parking Lot 2 and Parking Lot 4. The Build Alternative also includes a vent shaft to provide a means of emergency passenger egress and first responder access. Two vent shafts with different design options and access points are being considered for the Build Alternative. The tunnel alignment near the vent shaft locations slightly shifts to either the west (Vent Shaft Design Option 2) or the east (Vent Shaft Design Option 4). Further, an 11,000-square-foot MSF would also be constructed adjacent to the Cucamonga Metrolink Station plaza, where the autonomous electric vehicles would be stored and maintained. Chapter 2 of this EA presents a detailed description of the Build Alternative components.

Right-of-Way Requirements

The tunnel alignment would require right-of-way (ROW) easements from 19 properties. This alignment includes the need for 12 permanent subsurface easements, two permanent surface easements, and five parcels that are both subsurface and surface easements. Chapter 2 of this EA presents a detailed description of the ROW requirements.

Construction

Construction of the Build Alternative would be managed by SBCTA. The construction of the Build Alternative is projected to start in the spring of 2025 and be completed in 2031. Construction activities would shift along the corridor to minimize the duration of overall construction activities at any one point in time. Most construction activities would occur during daytime hours between 7:00 a.m. and 5:00 p.m. For specialized construction tasks, it may be necessary to work during nighttime hours to meet the restrictions set by the City of Rancho Cucamonga and the City of Ontario to minimize traffic disruptions. Construction activities and staging for the Cucamonga station would occur within the existing Cucamonga Metrolink Station parking lot.

PERMITS AND APPROVALS

SBCTA is seeking federal funding for the proposed Project and is required to comply with federal environmental regulations under NEPA (Code of Federal Regulations [CFR] Title 40, Parts 1500–1508) and its implementing regulations, in accordance with 23 CFR Part 771. While FTA and SBCTA are joint lead agencies for the proposed Project under NEPA, FTA manages and provides oversight for the development and approval of the NEPA environmental document. A NEPA determination from FTA is required to proceed to the next phase. Under CEQA, certification of the Final Environmental Impact Report (EIR) and approval of the proposed Project by SBCTA would be required prior to construction and implementation of the proposed Project. The EIR, as defined by Section 15161 of the *State CEQA Guidelines,* serves as an informational document for the general public and the proposed Project's decision-makers. SBCTA, as CEQA lead agency, has the responsibility for preparing and circulating the Draft EIR for public review and

certifying the Final EIR, pursuant to *State CEQA Guidelines* Sections 15089 and 15090, respectively. Implementation of the Build Alternative would require discretionary actions and permits from the agencies identified in Table ES-1.

Table ES-1: Anticipated Permits and Approvals

#	Requirement/Permit	Permitting Agency
1	Draft Cooperating Coordination Agency Plan	Federal Transit Administration, SBCTA
2	National Environmental Policy Act Compliance	Federal Transit Administration
3	Form 7460-2-Parts 1 and 2 Obstruction Evaluation/Airport Airspace Evaluation	Federal Aviation Administration
4	California Environmental Quality Act Compliance	San Bernardino County Transportation Authority
5	Section 106 of the National Historic Preservation Act (NHPA) Consultation	State Historic Preservation Officer
6	Air Quality Permit (stationary equipment)	South Coast Air Quality Management District
7	Construction General Permit	State Water Resources Control Board
8	Encroachment Permits	Caltrans, Cities of Ontario and Rancho Cucamonga
9	Discretionary Permit for Airport Property	City of Ontario
10	Tree Removal Permits	Cities of Ontario and Rancho Cucamonga
11	Building Permits	Cities of Ontario and Rancho Cucamonga
12	Airport Development Advisory Board approval (design phase)	Ontario International Airport Authority

SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

Table ES-2 provides a summary of all potential environmental impacts of the Build Alternative and all design options. Chapter 3.0 of the EA presents further and more detailed information about the impacts as they pertain to the Build Alternative and all design options. Table ES-2 includes a list of proposed avoidance, minimization, and/or mitigation measures to be implemented to address potential proposed Project-related permanent and temporary impacts. SBCTA and FTA are committed to satisfying all applicable federal, state, and local environmental regulations and applying reasonable and feasible mitigation measures to reduce potential effects.

Table ES-2: Summary of Environmental Effects

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY	Construction of the Build Alternative would have particulate matter (PM) (PM_{10}, $PM_{2.5}$), nitrogen oxides (NO_X), and volatile organic compound (VOC) emissions as well as fugitive dust. To avoid or minimize effects during construction, MM-AQ-1 would be implemented. The Build Alternative under the operational condition would have a net air quality benefit, as reduced vehicle miles traveled (VMT) results in reduced combustion emissions.	No adverse effect	**MM-AQ-1**: Implement Basic Construction Emission Control Practices	No adverse effect
AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY	During construction of the Build Alternative, greenhouse gases (GHGs) would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. Construction of the Build Alternative would have an estimated 401 metric tons CO_2 equivalent per year, amortized over 30 years. When construction GHG	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational GHG effects.	No adverse effect (construction); Beneficial effect (operations)

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
	emissions are considered with operations GHG emissions, construction of the Build Alternative would not generate GHG emissions in exceedance of the South Coast Air Quality Management District thresholds. Implementation of the Build Alternative would have a net decrease in GHG emissions compared to the No Build Alternative, as the Build Alternative would replace the GHG-emitting vehicles driving the last portion of their route with electric shuttles between the Cucamonga Metrolink Station and ONT.			
AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY	Construction of the Build Alternative would have a 0.01 percent increase in energy consumption over the 56-month construction window. The Build Alternative would not cause or have the need for additional energy facilities or an additional or expanded delivery system. During operation, the Build Alternative would be required to adhere to, and would be consistent with, all federal, State, and local requirements for energy efficiency, including the Title 24 standards.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational energy effects.	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
COMMUNITY AND SOCIOECONOMIC EFFECTS	Compliance with existing land use policies and regulations would ensure that the effects of the Build Alternative would not divide established communities during construction and operational activities. The construction phase of the Build Alternative would be temporary and would not directly or indirectly induce unplanned population growth in the area; therefore, no new demands on fire, police, or emergency services are anticipated. Additionally, no housing would be developed under the Build Alternative and implementation of the Build Alternative would not generate population growth that would increase the use of parks or other recreational facilities.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
COMMUNITY AND SOCIOECONOMIC EFFECTS	The Build Alternative would include construction staging areas that would house equipment and vehicles primarily at the proposed station sites and in the vicinity of the proposed vent shaft (either Design Option 2 or Design Option 4); however, construction staging areas would be fenced and screened from public vantage points. Fencing, equipment, and vehicles would be removed when construction is complete. The operation of the Build Alternative would include visible features; however, the aboveground features would be surrounded by similar urban development.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect
COMMUNITY AND SOCIOECONOMIC EFFECTS	The Build Alternative would require ROW easements from 19 properties. Construction staging activities may have temporary increases in dust and noise levels in the immediate vicinity. However, these effects would be minimized through compliance with federal, state, and local specifications and regulations.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
COMMUNITY AND SOCIOECONOMIC EFFECTS	Temporary transportation, noise, air quality, hazardous material, water quality, and utility effects during construction of the Build Alternative have the potential to affect public health and safety. However, SBCTA will develop and implement a Safety and Security Management Plan to maintain the safety of all construction workers and the public during construction and operation of the Build Alternative.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect
CULTURAL RESOURCES	The Build Alternative would not impact archaeological resources within the Area of Potential Effect (APE). Based on the depth of tunneling activities up to 70 feet, excavation activities are unlikely to encounter archaeological resources; however, in the event that archaeological materials are encountered during construction, AM-CUL-1 would be implemented. If human remains are encountered, AM-CUL-2 would require compliance with State Health and Safety Code Section 7050.5.	No adverse effect for cultural resources Adverse effect for tribal cultural resources	**MM-CUL-1:** Discovery of Archaeological Materials **MM-CUL-2**: Discovery of Human Remains **MM-CUL-3**: Discovery of Tribal Cultural Resources	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
	None of the historic resources that were evaluated appear eligible for listing in the National Register or California Register, and there are no historic properties as defined by Section 106. Therefore, pursuant to Section 106, a Finding of No Historic Properties Affected is appropriate for this undertaking.			
ECONOMIC AND FISCAL EFFECTS	Construction of the Build Alternative would require substantial capital investment in San Bernardino County and the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA); however, operation would have long-term recurring benefits. The incremental consumption from new earnings would boost sales tax revenues for the County, MSA, and State. The County would earn an additional sales tax revenue of $0.8 million, while the MSA and the State would generate income tax earnings of $1.4 million and $1.9 million, respectively.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect (construction); Beneficial effect (operations)

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
	The increased transit employment would have positive economic and fiscal effects to the County, the MSA region, and the State, both through the direct hiring to fill transit jobs and indirectly as these transit workers spend their earnings, thus creating additional consumer demand and jobs to meet that demand.			
ENVIRONMENTAL JUSTICE AND EQUITY	Construction and operation of the Build Alternative will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and Federal Highway Administration Circular 4703.1.	No adverse effect	Measures identified for other resources, such as air quality, cultural resources, geology, hazards, and water quality, would help minimize potential environmental justice community impacts.	No adverse effect
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	Because of the proximity of known active faults that could produce earthquakes of magnitude 6.0 to 8.0, the hazard posed to the Project Area by seismic shaking is potentially high.	Adverse effect	**MM-GEO-1:** Demonstrate Seismic Resistant Design Compliance	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
	Structures within the Project Area would be required to be designed in accordance with applicable parameters of current California Building Code. MM-GEO-1, which requires compliance with current California Building Code requirements, would ensure that the Build Alternative would address effects related to seismic-related ground failure.			
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	Although soils in the Project Area have a low to moderate susceptibility to erosion, these soils would be susceptible to erosion during construction activities, such as excavation. As part of the City of Rancho Cucamonga and the City of Ontario permitting process, a site-specific Stormwater Urban Mitigation Plan, which is part of the National Pollutant Discharge Elimination System Municipal General Permit, would be prepared for the Build Alternative (see Mitigation Measure MM-HWQ-1 in Appendix G).	Adverse effect	**MM-HWQ-1:** Temporary Construction Dewatering	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	Excavation activities for temporary slopes in the Project Area could occur in unstable soil. In general, the risk of slope failure is considered higher for temporary slopes due to generally steeper gradients versus permanent, manufactured slopes. MM-GEO-2 would be implemented, as required by applicable local, state, or federal laws or regulations, to ensure stability of temporary slopes.	Adverse effect	**MM-GEO-2:** Ensure Stability of Temporary Slopes	No adverse effect
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	Using unsuitable materials for fill and/or foundation support would have the potential to create future heaving, subsidence, spreading, or collapse problems leading to building settlement and/or utility line and pavement disruption. Implementation of MM-GEO-3 through MM-GEO-5 would require the preparation of a site-specific evaluation and would require compliance with the recommendations of the evaluation.	Adverse effect	**MM-GEO-3:** Prepare Soils and Geotechnical Analysis	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	The Project Area may have the potential to contain expansive soil, which could cause compromised foundation stability for buildings, roads, and utilities. MM-GEO-6 requires compliance with the City of Rancho Cucamonga's and City of Ontario's building codes and preparation of a site-specific foundation investigation and report for each construction site that identifies potentially unsuitable soil conditions (including soil expansion issues) and contains appropriate recommendations for foundation type and design criteria.	Adverse effect	**MM-GEO-3:** Prepare Soils and Geotechnical Analysis	No adverse effect
GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES	Some fossils could be destroyed prior to discovery and identification during construction of the proposed stations, the cut-and-cover portions of the tunnel, and vent shaft and the relocation of affected utilities. However, the scientific value of fossils that may be present in these areas can be largely or completely preserved by the implementation of MM-PAL-1 through MM-PAL-4.	Adverse effect	**MM-PAL-1:** Engage a Qualified Paleontological Resources Specialist **MM-PAL-2:** Prepare and Implement a Paleontological Resources Impact Mitigation Plan. **MM-PAL-3:** Provide Worker Environmental Awareness Program Training for Paleontological Resources. **MM-PAL-4:** Halt Construction if Paleontological Resources are Found	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
HAZARDS AND HAZARDOUS MATERIALS	Construction of the Build Alternative could have exposure of hazardous materials due to improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, transportation accident, environmentally unsound disposal methods, fire, or other emergencies.	Adverse effect	**MM-HAZ-1:** Prepare a Risk Management Plan, if Necessary **MM-HAZ-2:** Locate and Avoid Underground Pipelines in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs	No adverse effect
HAZARDS AND HAZARDOUS MATERIALS	There are 15 closed leaking underground storage tanks (LUST) cases, one open LUST case, one Cleanup Program Site, and one tiered permit site within the Study Area. Trenching, tunneling, and other ground-disturbing construction activities could disturb undocumented soil or groundwater contamination. Impacts could result if construction activities inadvertently disperse contaminated material into the environment. MM-HAZ-1 would require preparation of a Risk Management Plan to identify contaminants found during construction and measures to avoid exposure to hazardous contaminants.	Adverse effect	**MM-HAZ-1:** Prepare a Risk Management Plan, if Necessary **MM-HAZ-2:** Locate and Avoid Underground Pipelines in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
HAZARDS AND HAZARDOUS MATERIALS	In addition, three hazardous liquid pipelines were identified within the resource study area. MM-HAZ-2 would ensure underground pipelines are avoided during construction and a response plan is implemented if accidental rupture occurs. During construction, there may be effects associated with temporary lane and roadway closures. MM-HAZ-3 would ensure adequate emergency access during construction. The Build Alternative is located within the ONT Airport Land Use Compatibility Plan (ALUCP). Cranes would be required during construction of the Build Alternative Because construction contractors would be required to comply with FAR Part 77 height limits, crane heights would not penetrate the Airspace Protection Zone. The southern portion of the Build Alternative is located within Safety Zone 3 (Inner Turning Zone); however, transportation uses—including (1) Airport Terminals: airline, general aviation;	Adverse effect	**MM-HAZ-1:** Prepare a Risk Management Plan, if Necessary **MM-HAZ-2:** Locate and Avoid Underground Pipelines in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
	(2) Rail and Bus Stations; (3) Transportation Routes: roads and rail ROW and bus stops; and (4) Auto Parking: surface lots and structures—are compatible uses in Safety Zone 3.			
NOISE AND VIBRATION	Under the FTA noise impact criteria, construction of the Build Alternative would not increase noise levels in exceedance of the FTA impact threshold (ranging from 80 to 90 dBA) at noise-sensitive receptor locations. Operation of the Build Alternative is not expected to substantially increase noise levels above current levels at nearby noise-sensitive receptor locations. Additionally, the Build Alternative would adhere to existing noise regulations to minimize operational noise effects. The Build Alternative would not have human annoyance ground borne vibration levels or structural damage vibration levels exceeding FTA thresholds. Operation of the Build Alternative is not anticipated to produce perceptible vibration beyond the Project Area.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect (construction); No adverse effect (operation)

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
TRANSPORTATION AND TRAFFIC	During construction, access to transit facilities and roadway, parking, bicycle, and pedestrian facilities would be temporarily affected. Implementation of MM-TRA-1 ensures a Transportation Management Plan (TMP) would be prepared by SBCTA to facilitate the flow of traffic in and around construction zones and would address any construction-related effects to roadway, parking, bicycle, and pedestrian facilities. During operation, the Build Alternative 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. The Build Alternative is anticipated to reduce vehicular trips within the region overall due to alternative modes of travel being made available and would provide a direct connection to the Cucamonga Metrolink Station, allowing for convenient transfers between ONT and the Metrolink San Bernardino Line.	Adverse effect	**MM TRA-1:** Ensure Adequate Access to Transit, Roadway, Parking, Bicycle, and Pedestrian Facilities During Construction.	No adverse effect (construction); Beneficial effect (operations)

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
WATER QUALITY, WATER RESOURCES, AND FLOODPLAIN	During construction of the Build Alternative, soil would be exposed and there would be a potential for soil erosion, sedimentation, and polluted runoff. In addition, construction of the Build Alternative could introduce contaminants into storm drains. Because the Build Alternative would disturb greater than 1 acre of soil, construction would be subject to requirements of the Construction General Permit. Additionally, if construction dewatering is deemed necessary, the Build Alternative contractor would be required to obtain coverage under the SWRCB Control Board Construction Dewatering General Permit, as outlined in MM-HWQ-1. It is anticipated that excavations will be required for construction of the subterranean tunnel and vent shaft. Implementation of MM-HWQ-1 would address potential effects on dewatering during construction.	Adverse effect	**MM-HWQ-1:** Temporary Construction Dewatering	No Adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
WATER QUALITY, WATER RESOURCES, AND FLOODPLAIN	Any increase in impervious surfaces resulting from the development of the proposed vent shaft (Option 2 and Option 4) is anticipated to be minor in relation to existing conditions. Impervious surfaces generate stormwater runoff that may contain pollutants. However, the Build Alternative would comply with City regulatory processes for ensuring that appropriate best management practices are included in design of the Build Alternative and applicable federal Clean Water Act NPDES program and state NPDES requirements. Construction and operation would not alter existing drainage patterns. Because existing drainage patterns would be maintained, the Build Alternative would not increase surface runoff that would have erosion, siltation, or flooding. With compliance with the Construction General Permit and the city General Plans and municipal codes, erosion and sediment controls would be implemented during construction; erosion, siltation, and flows would be controlled for the Build Alternative.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
WATER QUALITY, WATER RESOURCES, AND FLOODPLAIN	A portion of the Project Area crosses a Federal Emergency Management Agency (FEMA)-designated 100-year floodplain. Construction activities in floodplains have the potential to temporarily cause or contribute to localized increases in flood depths (water surface elevations), peak flow rates, and flow velocities, particularly during storm events. However, the Build Alternative is mostly located outside of a 100-year flood hazard area and does not place any surface structures within the floodplain. MM-HWQ-2 would require design plans to meet all safety standards for portions of the Build Alternative within FEMA-designated 100-year floodplains and be approved by the City of Ontario Building Department. Implementation of MM-HWQ-2 and adherence to all federal, state, and local regulations would ensure that any potential effects resulting from FEMA-designated 100-year flood hazard area would be reduced.	Adverse effect	**MM-HWQ-2:** Floodplain Plan Approval	No adverse effect

Potential Environmental Effects	Description of Impacts	Impact Before Mitigation	Proposed Avoidance, Minimization, and/or Mitigation Measures	Impact Remaining After Mitigation
WATER QUALITY, WATER RESOURCES, AND FLOODPLAIN	A portion of the Project Area is located within the San Antonio Dam failure inundation zone. Although dam failure is considered remote, MM-HWQ-3 would require that evacuation procedures be established for the Project Area in the event of failure of the San Antonio Dam.	Adverse effect	**MM-HWQ-3:** Emergency Operations Plan	No adverse effect
CUMULATIVE	The Build Alternative in combination with projects in the area would have a cumulative parking effect at the Cucamonga Metrolink Station.	No adverse effect	No avoidance, minimization, or mitigation measures are needed to address construction or operational effects to this topic.	No adverse effect

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APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
$	dollars
%	percent
a.m.	ante meridiem
AM	avoidance measure
APE	Area of Potential Effects
Caltrans	California Department of Transportation
CEQ	Council on Environmental Quality
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	carbon monoxide
County	San Bernardino County
dBA	A-weighted decibels
EA	Environmental Assessment
EIR	Environmental Impact Report
EJ	Environmental justice
EO	Executive Order
FedEx	Federal Express Corporation
FTA	Federal Transit Administration
GHG	greenhouse gas
I-15	Interstate 15
I-10	Interstate 10
ID	Identification
kWh	kilowatt-hour
lbs/day	pounds per day
LEP	Limited English Proficiency
L_{eq}	equivalent continuous noise level
LOS	levels of service
LST	Localized Significance Threshold
LUST	leaking underground storage tank
MLD	most likely descendant
MM	Mitigation Measure
MSA	metropolitan statistical area
MSF	maintenance and storage facility
$MTCO_2e$	metric tons of carbon dioxide equivalent

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_X	nitrogen oxides
OIAA	Ontario International Airport Authority
ONT	Ontario International Airport
OSP	Operating System Provider
p.m.	post meridiem
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
Project	ONT Connector Project
ROW	right of way
RSA	resource study area
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SBCTA	San Bernardino County Transportation Authority (formerly SANBAG)
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCRRA	Southern California Regional Rail Authority
SFPP	Santa Fe Pacific Partners
SOx	Sulfur Oxide
State	State of California
TBM	tunnel boring machine
USC	United States Codde
UPS	United Parcel Services Inc.
U.S.	United States
U.S. DOT	United States Department of Transportation
VdB	velocity decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
WVC	West Valley Connector

1 PURPOSE AND NEED

1.1 INTRODUCTION

San Bernardino County Transportation Authority (SBCTA), in cooperation with Federal Transit Administration (FTA), proposes to establish new transit service directly connecting the Southern California Regional Rail Authority (SCRRA) Cucamonga Metrolink Station to Ontario International Airport (ONT) in San Bernardino County (proposed Project), which would expand access options to the airport (see Figure 1-1). ONT is located approximately 2 miles east of downtown Ontario in San Bernardino County. The airport services more than 25 major cities via 10 commercial carriers. ONT is owned and operated under a joint powers agreement between the City of Ontario and San Bernardino County. Ontario International Airport Authority (OIAA) provides overall direction, management, operations, and marketing for ONT.

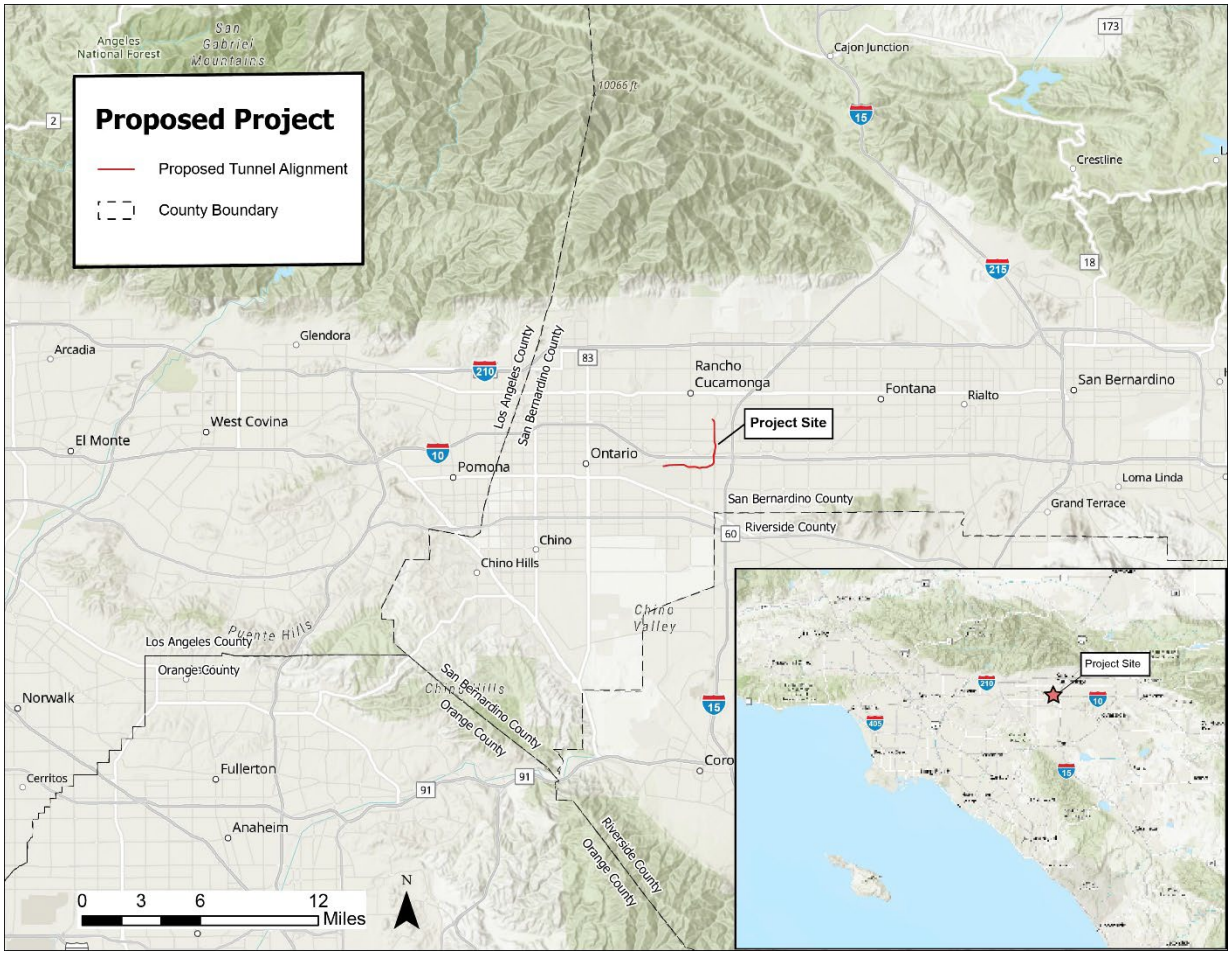
The proposed Project is subject to environmental review under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). The FTA is the lead agency for NEPA, as SBCTA plans to seek federal funding for the proposed Project from FTA. SBCTA is the lead agency under CEQA. Cooperating agencies include OIAA, Omnitrans, the City of Ontario, and the City of Rancho Cucamonga. Aspects of the CEQA process overlap and support the NEPA process, such as research and technical studies for various resources, joint planning processes, coordination with the community and stakeholders, and public review of the environmental document. Chapter 4.0 of this environmental assessment (EA) includes a summary of public and agency coordination conducted to date and demonstrates how early and continuing coordination with the general public and public agencies is occurring simultaneously for both CEQA and NEPA. A list of contributors during the preparation of this EA is provided in Appendix A.

1.2 BACKGROUND

Since 2008, SBCTA and other agencies have assessed several transit concepts that could connect to ONT. Previous studies and efforts have assessed the feasibility of such a connection and evaluated the performance of several transit concepts, with distinct alignments and configurations.

- **2008 – Strategic Planning Report for Metro Gold Line Foothill Extension to LA/Ontario International Airport**: This effort first studied a direct connection to ONT via a light rail transit extension of the Los Angeles County Metropolitan Transportation Authority system (MGLFECA 2008) (see Appendix B for a complete list of references). The need for a public transit connection to ONT had first been expressed by San Gabriel Valley residents and businesses during the public comment period of the Gold Line Foothill Extension to Montclair project (Final Environmental Impact Report [EIR] released in 2007). Comments received during scoping meetings in four cities along the corridor, as well as via email, fax, and US Mail, revealed a desire by the public to extend Gold Line service to ONT.

Figure 1-1: Regional Location Map



- **2014 – San Bernardino Associated Governments (SANBAG) (now SBCTA), *Ontario Airport Rail Access Study* (SANBAG 2014)**: This study carried forward the recommended alternatives from the 2008 study while studying new options for connecting nearby Metrolink stations to ONT (a total of 32 alternatives). This study identified the need for a direct rail-to-airport connection to ONT to support projected growth in air travel at ONT.

- **2018 – Southern California Association of Governments (SCAG) Inter-County Transit and Rail Connectivity Study:** This study evaluated transit and rail service connecting the eastern San Gabriel Valley to the western San Bernardino Valley, including connections to ONT (SCAG 2018). Based on alternatives considered, SCAG noted that the 2014 Ontario Airport Rail Access Study identified the diesel multiple-unit shuttle between the Cucamonga Metrolink Station and ONT and a new conversion of Metrolink service on the San Bernardino Line to hybrid rail service with an additional spur to ONT would result in the fastest travel times to the airport.

- **2018 – SBCTA Hybrid Rail Planning Study**: SBCTA found that consistent bi-directional service along the San Bernardino Line was not feasible due to inconsistent Metrolink clock scheduling and existing infrastructure that includes large segments of a single-track corridor, both of which would reduce reliable service to ONT (SBCTA 2018). The 2018 SCAG and SBCTA studies reaffirmed that service to ONT would need to be provided via a connecting shuttle-style rail service with a transfer at the Cucamonga Metrolink Station.

Additionally, in 2020, SBCTA pursued a concept for a tunnel system using electric vehicles to provide transit service from the Cucamonga Metrolink Station to ONT. SBCTA considered this concept as viable because of the lower construction and operating cost and reduced timeline, compared to other alternatives previously studied. Alternatives recommendations from the planning studies resulted in the further evaluation of several alternatives, as well as the tunnel concept.

In 2022, Omnitrans and the OIAA began to provide temporary shuttle service between the Cucamonga Metrolink Station and ONT terminals to increase awareness of the nearby transit connection, but it is not scheduled to coincide with train arrivals, which would facilitate timely service to accommodate Metrolink riders to ONT.

Building on the findings of previous studies and efforts, SBCTA initiated the environmental phase for the SBCTA Tunnel Loop Project (now known as the ONT Connector Project) in 2022. Additional information on the background of the ONT Connector Project is included in Section 2.4 and Appendix C of this EA.

1.3 PROJECT PURPOSE

The purpose of the proposed Project is as follows:

- Expand access options to ONT by providing a convenient and direct transit connection between ONT and the Cucamonga Metrolink Station;
- Reduce roadway congestion by encouraging a mode shift to transit from single-occupancy vehicles and provide reliable trips to and from ONT; and
- Support the use of clean emerging technology opportunities between the Cucamonga Metrolink Station and ONT.

1.4 PROJECT NEED

The following needs were identified for transportation options between the Cucamonga Metrolink Station and ONT:

- Lack of direct transit connection coinciding with Metrolink trains and peak airport arrival and departure schedules;
- Roadway congestion affecting trip reliability and causing traffic delays;

- High number of vehicle miles traveled (VMT) resulting from ONT travelers and lack of a direct transit connection
- Increasing greenhouse gas (GHG) and air pollutant emissions within the communities surrounding ONT from vehicle travel to and from ONT

1.4.1 Direct First/Last Mile Connections

The lack of a direct transit connection between Cucamonga Metrolink Station and ONT creates mobility challenges for air passengers accessing ONT. In many cases, the lack of a last-mile connection between the Metrolink system and ONT forces airport passengers to use rideshare services or private single-occupancy vehicles, adding congestion to the local roads between Cucamonga Metrolink Station and ONT. This congestion results in delays for the public to reach their destination, community services, and facilities. Traveling on the area roadway network, Cucamonga Metrolink Station (San Bernardino Line) is located approximately 4.6 miles from ONT, and Ontario-East Station (Riverside Line) is located approximately 3.2 miles away. However, direct access for ONT passengers is almost exclusively limited to single-occupancy vehicles using local roadways and nearby freeways (Interstate 10 [I-10] and Interstate 15 [I-15]). A direct transit connection that competes with automobile travel time is needed to improve mobility for travelers flying into and out of ONT (SANBAG 2014).

The San Bernardino Line is the busiest in the Metrolink commuter rail system, carrying approximately 4,700 passengers each weekday (Metrolink 2023). The San Bernardino Line provides service during weekdays and weekends and stops at Cucamonga Metrolink Station, which makes it a logical choice for ONT passengers arriving via transit service. Metrolink's Riverside Line carries approximately 1,200 passengers per weekday but does not provide weekend service (Metrolink 2023). The lack of weekend service limits the Riverside Line's use for connecting to ONT.

The *Ontario Airport Rail Access Study* recommended in the near-term (per the study, near-term is "as soon as practicable") to provide a connection to Metrolink (SANBAG 2014). In 2022, Omnitrans and OIAA began to provide temporary shuttle service between Cucamonga Metrolink Station and ONT terminals to increase awareness of the nearby transit connection, but it is not scheduled to coincide with train arrivals, which would facilitate timely service to accommodate Metrolink riders to ONT.

Despite not meeting the need for a direct transit connection coinciding with Metrolink trains and peak airport arrival and departure schedules, ridership on the ONT Connect Route reached 260 monthly passengers in March 2023; ridership on the shuttle service has lagged behind expectations, reflecting national transit ridership trends following the COVID-19 pandemic. *Ontario Airport Rail Access Study* forecasted that a bus or shuttle connection from Cucamonga Metrolink Station to ONT would carry 136 daily passengers to ONT (SANBAG 2014).

Other public transportation routes to ONT are limited to Omnitrans. Route 61 serves the cities of Fontana and Pomona, with frequent service via the City of Ontario every 30 minutes but does not directly connect

to either of the two nearby Metrolink stations. The route connects to Metrolink stations more than 5 miles from ONT (Riverside Line Downtown Pomona Station and San Bernardino Line Fontana Station). Route 61 is Omnitrans' highest ridership route (SBCTA 2018), with a peak of 112,817 riders in October 2018 over the past 5 years and an average of 102,966 monthly riders (pre-COVID-19 from January 2018 through February 2020). The average monthly ridership for 2023 through June was 65,248 passengers.

Route 81, which serves the City of Ontario and the City of Rancho Cucamonga, directly connects to the Metrolink Ontario-East Station. However, Route 81 runs once per hour during Monday through Saturday, with no service on Sundays, and does not enter the ONT terminal area. Passengers must walk or ride a shuttle after exiting the bus to reach the terminal area. Maximum ridership over the past 5 years on Route 81 was 14,624 in October 2019 and an average of 12,455 monthly riders (pre-COVID-19 from January 2018 through February 2020). The average monthly ridership for 2023 through June was 4,046 passengers. However, in September 2020, Route 81 was restructured by eliminating almost half of its route miles and a connection to City of Chino.

The West Valley Connector (WVC) Project is a planned bus rapid transit service connecting the cities of Rancho Cucamonga, Ontario, Pomona, and Montclair. Between ONT and Cucamonga Metrolink Station, the bus service would operate in mixed traffic along Milliken Avenue, Inland Empire Boulevard, and Archibald Avenue. WVC ridership forecasts 8,290 daily passengers in 2028, which would surpass Route 61 as Omnitrans' highest-ridership route. This illustrates an unmet transit demand in the area surrounding ONT (SBCTA 2020). The WVC Project is expected to begin revenue service in 2026.

1.4.2 Roadway Congestion

ONT travelers using rideshare services or private single-occupancy vehicles adds traffic volume and increasing congestion on the local roads between Cucamonga Metrolink Station and ONT. Increases in future traffic volumes and roadway congestion affect trip reliability for travelers and commuters to and from ONT. Current and future congestion on roadways surrounding ONT establishes a need for alternative access modes for air passengers to arrive on time for their scheduled flights.

Transportation Technical Report of the Brightline West - Cajon Pass High-Speed Rail Environmental Assessment reported heavy roadway congestion in the immediate area surrounding ONT during peak hours (HNTB 2022a). The report found that in the p.m. peak hour under 2025 No Build Alternative conditions, intersections such as Milliken Avenue/4th Street and Milliken Avenue/I-10 westbound ramps, which provide direct access to ONT, would operate at levels of service (LOSs) F and D, respectively. The volume-to-capacity ratio to Milliken Avenue from 4th Street is 1.44, in which demand exceeds roadway capacity and traffic flow would be unstable with excessive delays and queuing. As traffic volumes increase in the future, LOS is anticipated to worsen in 2045 at Milliken Avenue/4th Street and Milliken Avenue/I-10 westbound ramps, with both intersections operating at LOS F during the p.m. peak hour (HNTB 2022a).

In addition to worsening intersection delays, the growth of warehousing and logistic centers in San Bernardino County is resulting in an increase in truck traffic on local roadways, including Milliken Avenue. ONT has experienced an increase in commercial freight since 2019, from 781,993 tons to 851,924 tons of cargo in 2022. This increase resulted in more freight trucks along surface streets within the City of Rancho Cucamonga and the City of Ontario. Truck percentages at Milliken Avenue/4th Street, Milliken Avenue/ 7th Street, and Milliken Avenue/I-10 westbound ramps in the a.m. peak hour in 2022 consisted of 10 percent (%), 8%, and 18% of total vehicle traffic (HNTB 2022), respectively. Given recent average daily traffic counts that indicate volume-to-capacity ratios are already nearing 1.0 along segments of Milliken Avenue, demand will only continue to exceed capacity in the future, further impacting travel to and from ONT (City of Ontario 2019; HNTB 2022b).

Trip reliability refers to the dependability or consistency of travel times and exerts a strong influence over transportation network users. Commuters to and from ONT are dissuaded to use surface transit because of several variables that could affect on-time arrivals and departures at ONT. Traffic congestion negatively affects trip reliability, and future increases in passenger and truck traffic volumes would further increase travel times to and from ONT. A transit alternative that can guarantee trip reliability would encourage a mode shift from single-occupancy vehicle travel to ONT.

1.4.3 Vehicle Miles Travelled

As noted in Section 1.4.2, single-occupancy vehicles are the primary transportation mode to ONT. The VMT for people going to or from ONT varies based on their origin and destination. Based on modeling and a transportation study (SBCTA 2024a), regional VMT for the communities around ONT were estimated at more than 348 million miles in 2022 with a projected increase of 60 million miles by 2040, a portion of which are attributable to travelers and employees driving to and from ONT. The reliance on single-occupancy vehicles is expected to continue, and traffic conditions in the surrounding communities would continue to decline as VMT increases. Additional transit service is needed to reduce VMT and improve traffic conditions in the communities.

1.4.4 GHG and Air Pollutant Emissions

San Bernardino County is designated a nonattainment area for ozone and particulate matter with a substantial amount of pollutants coming from vehicle-related emissions. These air pollutants become trapped due to the topography and climate conditions in the county. This status means air quality exceeds National Ambient Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency and poses a concern for public health, particularly sensitive receptors like children, elderly, and people with respiratory health issues. Within the communities around ONT, the reliance on single-occupancy vehicles contributes to this nonattainment status and emissions that cause poor air quality. The reliance on single-occupancy vehicles for trips to and from ONT also contributes to GHG emissions, of which transportation is responsible for a substantial portion (CARB 2022). The need to reduce VMT through a

reliable transit service correlates to the need to reduce vehicle-related emissions in the region to help improve air quality and reduce GHG emissions.

2 DESCRIPTION OF ALTERNATIVES

This EA analyzes two alternatives: 1) the No Build Alternative, and 2) the Build Alternative. This section includes details on the No Build and Build Alternatives, construction, right-of-way (ROW) requirements, preliminary costs, permits and approvals, funding, and alternatives dismissed from further consideration.

2.1 NO BUILD ALTERNATIVE

The NEPA requires consideration of the environmental effects of not implementing the Build Alternative. The No Build Alternative would not result in a new direct electrically powered, on-demand fixed transit guideway connection from the Cucamonga Metrolink Station to ONT. New transit service would not be established, and no construction activities associated with establishing such a service would occur. Travelers to ONT would continue to use existing transportation services, such as buses and personal or ride-share vehicles on roadways.

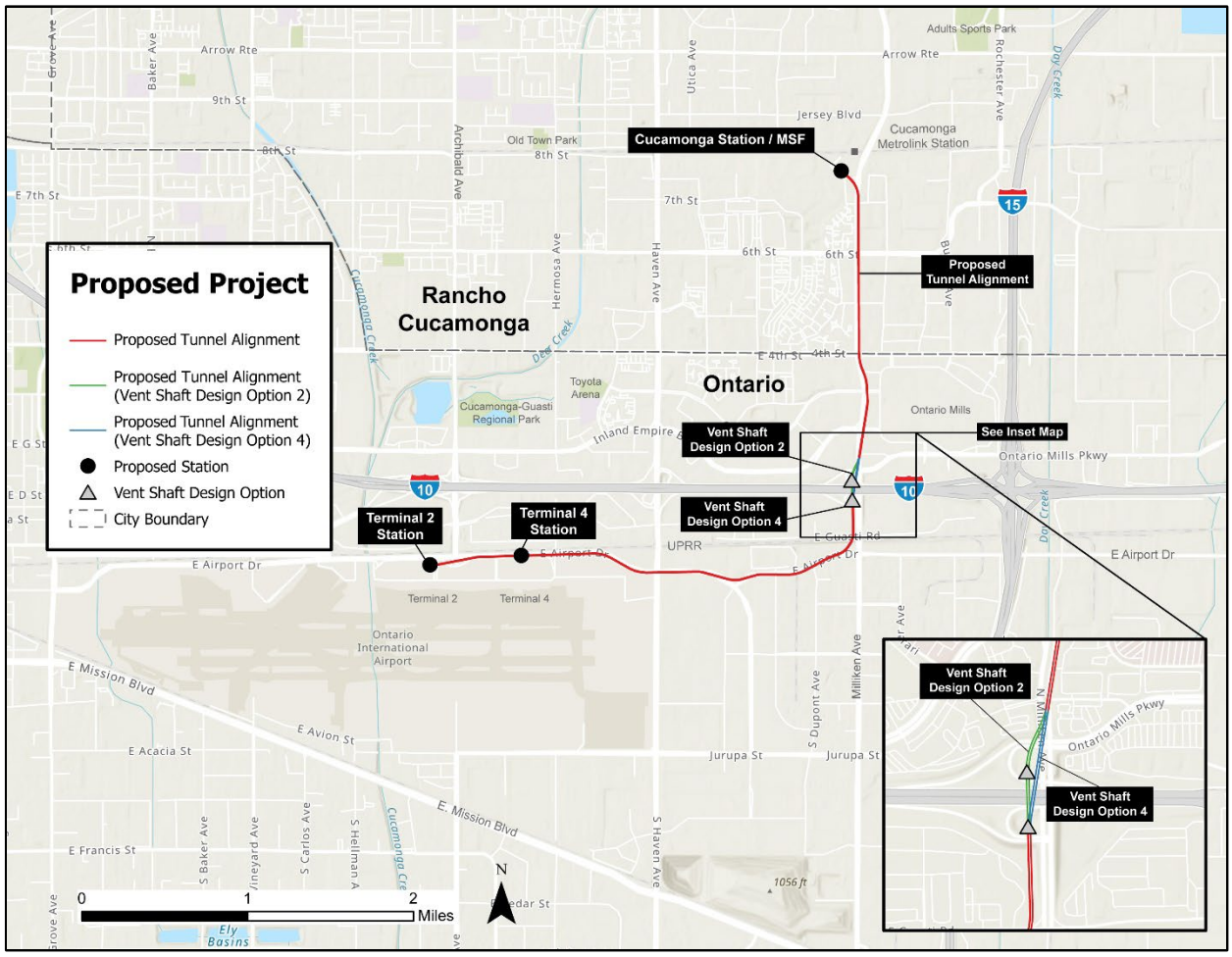
Omnitrans currently operates a limited-service bus route to ONT, known as ONT Connect or Route 380, which would continue to operate. ONT Connect currently operates Monday through Sunday, with bi-directional (northbound and southbound) service frequencies ranging from 35-60 minutes and travels with general/mixed traffic on existing roadways. The existing roadway system near ONT (such as the I-10 and I-15) may be modified as part of planned expansion and improvement projects and routine maintenance activities. The SBCTA and California Department of Transportation (Caltrans) plan to construct Express Lanes, including tolled facilities, in both directions of I-15. SBCTA completed the Initial Study/Environmental Assessment in 2018 (Caltrans2018), and construction began in January 2024. In addition, Caltrans is planning to improve I-10 by constructing freeway lane(s) and other improvements through all or a portion of the 33-mile-long segment of I-10 from the Los Angeles/San Bernardino County line to Ford Street in San Bernardino County. The first phase of the project is currently under construction, and SBCTA is preparing the second phase construction in 2025 (SBCTA 2024b). SBCTA is currently constructing the West Valley Connector Project that would provide a zero emissions bus rapid transit service between the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana. The project is anticipated to begin operating service in Spring 2026 (SBCTA 2024c). These other planned projects would take place regardless of the Build Alternative being implemented. A detailed list of the planned projects is found in Section 3.12 of this EA.

2.2 BUILD ALTERNATIVE

The Build Alternative includes a 4.2-mile tunnel for transit service, three passenger stations, a maintenance and storage facility (MSF), and an access and ventilation shaft in the cities of Rancho Cucamonga and Ontario within San Bernardino County (see Figure 2-1). The proposed Project area is

defined as those areas anticipated to be disturbed during construction of the Build Alternative, both temporarily and permanently, and encompasses approximately 9090 acres, including an approximately 100-foot-wide corridor along the proposed tunnel alignment and the anticipated disturbance footprints at the proposed stations (about 9.8 acres total) and other project elements. Please see Appendix D for a map for the proposed Project area. The tunnel would include a guideway for the operation of autonomous electric vehicles that would be grouped and queued at their origin station and depart toward the destination station once boarded with passengers. The following sections provide additional details on the proposed design, construction, and operation, as applicable, for these project elements. Appendix C for additional background on the development and refinement of the Build Alternative design.

Figure 2-1: Build Alternative Alignment



2.2.1 Proposed Design

Guideway Tunnel. The proposed tunnel alignment would begin at the Cucamonga Metrolink Station, travel south underneath Milliken Avenue, and cross beneath 6th Street, 4th Street, I-10, and the Union

Pacific Railroad, before traveling west beneath East Airport Drive to connect to Terminals 2 and 4 at ONT. The tunnel depth would be approximately 70 feet below the ground surface. The bi-directional tunnel would have a 24-foot-inner-diameter with a middle fire and impact-rated wall between each side of the tunnel and access doors at 800-foot intervals per National Fire Protection Association standards.

Each side of the tunnel would have a fixed transit guideway for autonomous electric transit vehicles. The vehicles would have rubber tires and travel on a dedicated asphalt guideway. The tunnel would include access ramps for the transit vehicles to surface to grade and provide access to the three proposed at-grade stations for passenger boarding and alighting.

Stations. Three stations would be constructed to serve the Cucamonga Metrolink Station, ONT Terminal 2, and ONT Terminal 4. All three stations would be connected to the tunnel via a cut-and-cover structure and an at-grade guideway. The guideway would be enclosed by fencing, and the walls would be buffered with landscaping. A pedestrian walkway would be provided along the outside of the guideway. The stations would be at-grade within existing parking lots at Cucamonga Metrolink Station and ONT Terminals 2 and 4, and are proposed to be 1 to 2 stories, up to approximately 40 feet in height.

The proposed stations would include:

- Stations would be naturally ventilated and covered with canopies.
- Passengers would access each station via existing sidewalks or plazas. Stations would be entered via a ticketing area. Ticketing would likely occur via a self-service kiosk.
- Wayfinding and dynamic signage would be provided to facilitate passenger flow through each station and inform passengers of arrival/departure times. A public address system would assist visually impaired passengers.
- Mechanical, electrical, plumbing, fire protection, communications, and security systems would be integrated into the station's architecture to minimize visual clutter.
- Minimum clearances would be provided to allow vehicles to maneuver within each station and enter docking bays. Vehicle charging would occur within the bays.
- Sufficient space would be provided for passenger boarding and alighting. This would include accommodations for passenger luggage and boarding assistance.
- Each station would include ancillary rooms for electrical equipment, communications equipment, and janitorial services. No passenger restrooms are anticipated.
- Stations would include landscaping to prevent unauthorized access to restricted areas, screen station elements, buffer guideways, and fill unprogrammed exterior space. Plantings would be low-maintenance and reflective of the local climate. Lighting and security cameras would be provided at each station.

- Public and non-public space would be differentiated within the station facilities with all non-public spaces access controlled and clearly identified as such.

An approximately 8,000 square-foot, at-grade station would be located at the northwest corner of the existing Cucamonga Metrolink Station parking lot. The proposed Cucamonga Station would include an adjacent MSF with enclosed bays to store, clean, and maintain vehicles. The MSF would be approximately 11,000 square feet, with an additional 5,000-square foot second story and would contain an operations control center with lockers, breakrooms, and restrooms. The overall footprint of the station and maintenance facility is approximately 19,000 square feet. Employee parking for the facility would be provided at the existing parking lot owned by SBCTA, in the southeastern quadrant of the Milliken Avenue/Azusa Court intersection.

Two other stations, each approximately 10,000 square feet, would be located at-grade within two of the existing parking lots at ONT Terminal 2 and Terminal 4. Adjacent to the Cucamonga Metrolink Station would be the MSF to support operations, provide autonomous electric vehicle storage, and provide employee amenities and parking.

No new parking facilities are proposed at any of the three proposed stations. However, existing parking lots are located at Cucamonga Metrolink Station and near ONT Terminals 2 and 4. Coordination and agreements with SCRRA and OIAA would be needed to ultimately determine future shared use of these facilities for ONT Connector Shuttle passengers.

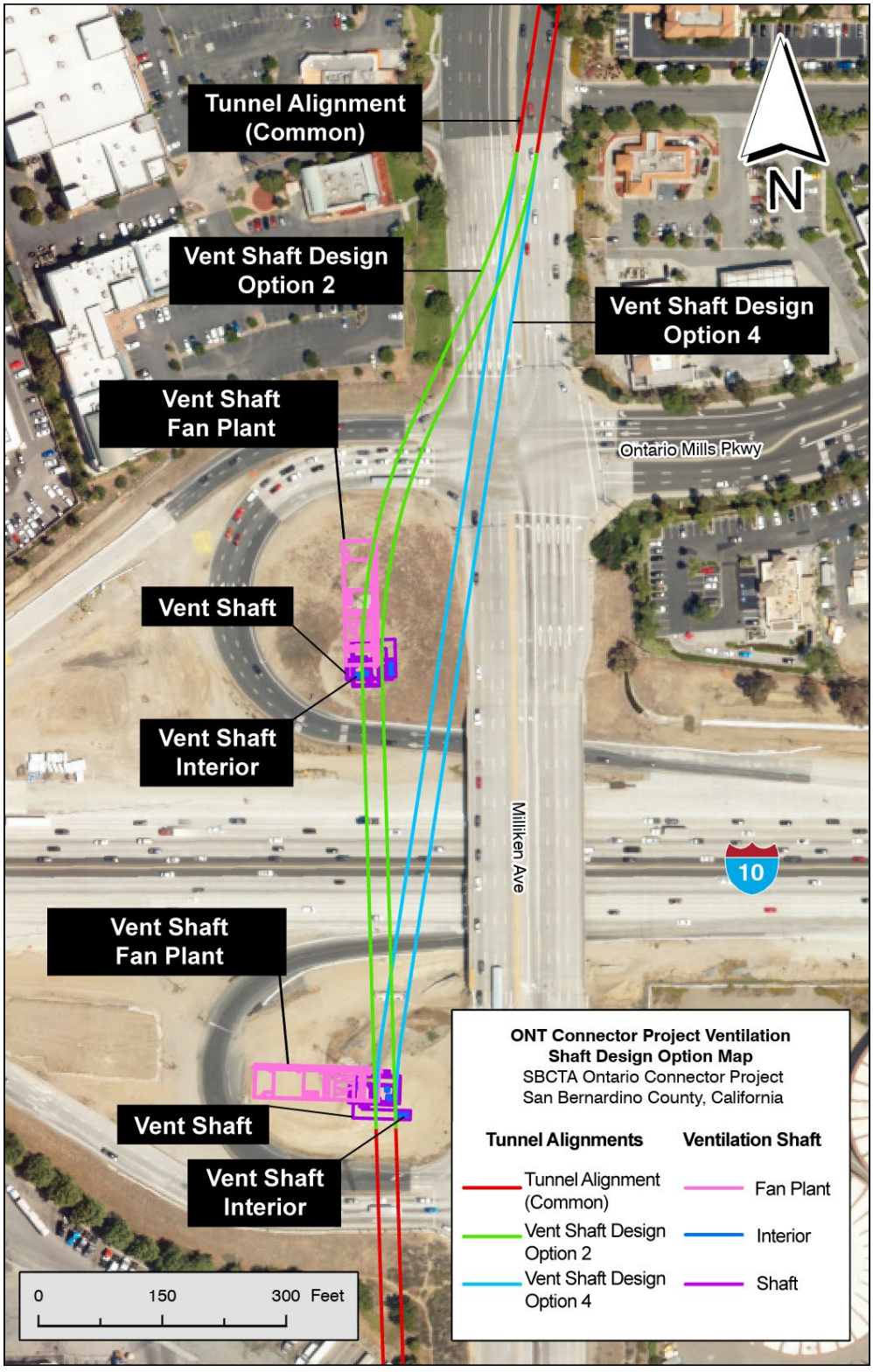
Vent Shaft. A vent shaft would be constructed to provide a means of emergency passenger egress and first responder access to and from the tunnel. Two locations are being considered west of Milliken Avenue on the north and south sides of I-10, as shown in Figure 2-2. A final decision about the location of the vent shaft would be made after the completion of the CEQA and NEPA environmental processes, and consideration of operational needs, environmental impacts, and stakeholder coordination.

The location option on the north side of I-10 would be in the ROW for the westbound off-ramp and would provide surface ground access from the Milliken Avenue/I-10 westbound off ramp intersection or from the westbound off ramp right lane near the ramp termini or directly from Milliken Avenue. The location option on the south side of I-10 would be in the ROW for the eastbound on-ramp and would provide surface ground access from Milliken Avenue near the eastbound on-ramp.

The vent shaft would consist of both underground and above ground structures. The underground shaft would extend to the tunnel level and the surface structures would consist of a one-(1) story structure above ground.

Access points would include underground, surface, and road access for emergencies to and from the tunnel. The proposed vent shaft would include associated electrical and ventilation equipment, and access would be controlled via a lock and key.

Figure 2-2: Vent Shaft Design Option 2 and Vent Shaft Design Option 4



2.2.2 Operations

The Build Alternative would operate autonomous electric vehicles to transport passengers between the Cucamonga Metrolink Station and ONT. The autonomous electric vehicles would be grouped and queued at their origin station and depart toward the destination station once boarded with passengers. After the group of vehicles arrives at the destination station and passengers deboard, new passengers would board, and the group of vehicles would return to its origin station. If no new passengers are present, empty vehicles would be returned to the origin station to pick up new passengers. The transit service would provide a peak one-way passenger throughput of approximately 100 per hour. Operations would be managed by Omnitrans, with on-demand service provided daily from 4:00 a.m. to 11:30 p.m., including weekends and holidays.

Fleet size and capacity of the vehicles will be determined by Omnitrans, which will be the Operating System Provider (OSP), and the Design-Builder to provide an initial operating system capable of transporting a minimum of 100 passengers per hour per direction and scalable to meet ridership demand. The vehicles and service would meet the definition of public transportation at 49 United States Code (USC) Part 5302(15) in that the Build Alternative would provide regular, continuing shared-ride service open to the general public. Based on the initial operating requirements and preliminary vehicle capacities, SBCTA anticipates initial fleet sizes of between 7 and 60 vehicles will be required. Vehicles will be rubber-tired electric autonomous vehicles.

2.2.3 Construction Approach

This section describes the construction approach for the Build Alternative. Overall construction of the Build Alternative would occur year-round and last approximately 4.5 years, with project elements varying in their specific construction duration, as discussed in the next section. Construction is projected to start in 2025 and is anticipated to be completed in 2031. The *Construction Methods Technical Report* (SBCTA 2024e, Appendix E) provides additional details regarding the construction approach and process for the key project elements (stations, MSF, tunnel construction, and vent shaft) associated with the Build Alternative.

2.2.3.1 General Construction Approach

A construction staging area would be required at each of the three proposed stations and at the vent shaft location. Construction staging areas would be used to store building materials and construction equipment, assemble the tunnel boring machine, temporarily store excavated materials, and serve as temporary field offices for the contractor. Heavy-duty, steel, track-out grates (i.e., rumble plates) would be staged at the entrance of the construction staging areas to capture dirt and soil debris from the wheels of trucks and construction equipment. Best management practices would minimize a public nuisance that can result from soil and mud tracks on the public roadway. For security purposes, construction staging

areas would be equipped with fences, lighting, security cameras, and guards to prevent vandalism and theft.

Cut-and-cover sites would occur at each proposed station location. Cut-and-cover activities involve the excavation of a shallow underground guideway from the existing street surface. During the construction phase, the cut-and-cover sites at Cucamonga Metrolink Station and Terminal 2 at ONT would be used as the tunnel boring machine launching and receiving pits. Ultimately, the station cut-and-cover sites would serve as the vehicle ramps for operations where the underground guideway would transition to at-grade. Cut-and-cover activities would include the following:

- Utility relocation or protection in-place and hanging where cut-and-cover method would be used;
- Soldier pile installation involving shoring on both sides of the excavation footprint to support the excavation and roadways;
- Initial excavation from the surface using large excavators and installation of temporary support of excavation composed of struts and lagging;
- Stockpiling of excavated material that is deemed suitable for reuse as backfill material;
- Excavation of launching and receiving pits;
- Construction of the permanent structures;
- Backfilling of and restoring the surface once the facilities are completed; and
- Installation of imported fill supported by soldier pile and lagging with permanent retaining walls constructed where the guideway transitions from at-grade to underground.

Following the mass excavation and grading, the stations would require the installation of the waterproof membrane around the station box. The construction sequence for the station structures would typically commence with construction of the foundation base slab, followed by installation of exterior walls any interior column elements, and pouring of the station roof. Once station structure work is complete, the station excavation would be backfilled, and the permanent roadway would be constructed. Decking removal and surface restoration would then occur. Stations are proposed to be 1 to 2 stories, up to approximately 40 feet in height.

Generally, stations would be built simultaneously with or following guideway construction. However, construction of the Cucamonga Station may need to occur after the completion of all excavation and in-tunnel work. Truck haul routes, described in Table 2-1, would be designated for each staging site to transport excavated material from the staging sites. Additional construction details for the proposed stations and MSF are described, in Table 2-1, and in Appendix E. Table 2-2 provides an overview of the typical sequencing for transit construction activities.

Table 2-1: Station and Maintenance and Storage Facility Construction Details

Proposed	Construction Area	Duration	Haul Route
Cucamonga Station and Maintenance and Storage Facility	Would require approximately 3.2 acres within the existing Cucamonga Metrolink Station parking lot. Approximately 170 parking stalls in the existing Metrolink parking lot would be temporarily unavailable during construction.	Construction at the Cucamonga Station would occur for approximately 37 months.	Haul trucks are needed to support removal and transport of materials from the mass excavation for each construction site (for the stations and vent shaft) and from tunnel boring activities. Haul trucks would collect excavated material from the construction sites and transport it away from the sites, utilizing designated haul routes. Haul trucks would exit the staging area, travel north along Milliken Avenue, and turn right on Foothill Boulevard to access I-15. No road closures are anticipated for staging at the Cucamonga Station.
ONT Terminal 2 Station	Would require approximately 3.4 acres within the existing ONT Terminal 2 parking lot. Approximately 300 parking stalls in the ONT parking lot would be temporarily unavailable during construction.	Construction at ONT Terminal 2 would occur for approximately 27 months.	Haul trucks are needed to support removal and transport of materials from the mass excavation for each construction site (for the stations and vent shaft) and from tunnel boring activities. Haul trucks would collect excavated material from the construction sites and transport it away from the sites, utilizing designated haul routes. Haul trucks would exit the staging area, travel east along Terminal Way, and turn left on Haven Avenue to access I-10. No road closures are anticipated for staging at the Terminal 2 Station.
ONT Terminal 4 Station	Would require approximately 3.2 acres within the existing ONT Terminal 4 parking lot. Approximately 300 parking stalls would be temporarily unavailable during construction.	Construction at ONT Terminal 4 would occur for approximately 15 months.	Haul trucks are needed to support removal and transport of materials from the mass excavation for each construction site (for the stations and vent shaft) and from tunnel boring activities. Haul trucks would collect excavated material from the construction sites and transport it away from the sites, utilizing designated haul routes. Haul trucks would exit the staging area, travel east along Terminal Way, and turn left on Haven Avenue to access I-10. No road closures are anticipated for staging at the Terminal 4 Station.

Table 2-2: Typical Sequencing of Transit Construction Activities

At Grade / Underground Construction	Construction Activities	Typical Duration (Total Months)	Description
At Grade Construction	Utility Relocation	7-14	Relocate utilities from temporary and permanent elements related to the construction and/or operation of the Project.
At Grade Construction	Construction Staging Laydown Yard	3-6	Prepare existing lots to store construction equipment and materials, including the tunnel boring machine, office space.
At Grade Construction	Roadway	6-18	Reconfigure roadway, demolition of existing roadway installation of curb and gutter and other public ROW improvements.
At Grade Construction	At-grade Guideway	6-18	Install asphalt and striping for guideway.
At Grade Construction	Station Construction (overall)	24-48	Install mechanical, electrical, and plumbing, canopies, faregates, ticketing, finishes, stairs, and walkways.
At Grade Construction	Parking	3-6	Restoring existing parking stalls temporarily unavailable due to construction, as applicable.
At Grade Construction	Maintenance and Storage Facility	8-12	Install mechanical, electrical, and plumbing, fencing, enclosed bays, specialized washing equipment, and rebar installation, and concrete pours.
Underground Construction	Underground Utility Relocation	7-14	Relocate and hang underground utilities from temporary and permanent elements related to the construction and operation of the Project.
Underground Construction	Open Cut and Cut and Cover Construction	18-24	Supports the construction of the tunnel boring machine (TBM) launching and receiving pit, and of the access ramps connecting the tunnel with the at-grade stations. Install soldier piles for beam and lag support of excavation and excavation. Cover excavation with temporary decking.
Underground Construction	Bored Tunnel	16-24	Underground guideway construction.
Underground Construction	Ventilation and Emergency Access Shaft	6-8	Install ventilation and emergency access shaft.
Underground Construction	Underground Guideway	12-18	Install asphalt and striping for guideway.

2.2.3.2 Construction Details for Cucamonga Station and Maintenance and Storage Facility

Construction at the proposed Cucamonga Station would require a mass excavation and the tunnel boring machine would be launched from the invert of the Cucamonga Station and retrieved from the ONT Terminal 2 Station construction site. Construction at the proposed Cucamonga Station would require approximately 3.2 acres. Approximately 170 parking stalls would be temporarily unavailable at the

Cucamonga Metrolink Station parking lot. Construction at the Cucamonga Station would occur for approximately 37 months. No road closures are anticipated for staging at the Cucamonga Station.

Additionally, construction would not interrupt Metrolink service at the Cucamonga Metrolink Station, as construction activities and staging would occur within the existing Cucamonga Station parking lot. SBCTA will coordinate construction at Cucamonga Station with the SCRRA, prior to the start of construction and throughout the construction period, to maintain station access and to coordinate station parking, as needed.

Equipment needs would include the following: excavators, backhoes, a vertical conveyor system, a gantry crane, a crawler crane, concrete trucks, haul trucks, a wheel loader, Foamplant, cooling towers, a tunnel fan grout plant, segment cars, and flatcars.

2.2.3.3 Construction Details for ONT Terminal 2 Station

Construction staging at the proposed ONT Terminal 2 Station would require approximately 3.4 acres within the existing ONT Terminal 2 parking lot. Approximately 300 parking stalls would be temporarily unavailable at the ONT Terminal 2 parking lot. Construction at the ONT Terminal 2 Station would occur for approximately 27 months. No road closures are anticipated for staging at the ONT Terminal 2 Station. Equipment needs would include the following: a piling rig, a gantry crane, a crawler crane, excavators, concrete trucks, muck trucks, a wheel loader, Foamplant, cooling towers, a tunnel fan, a grout plant, segment cares, and flatcars.

2.2.3.4 Construction Details for ONT Terminal 4 Station

Construction staging at the proposed ONT Terminal 4 Station would require approximately 3.2 acres within the existing ONT Terminal 4 parking lot. Approximately 300 parking stalls would be temporarily unavailable at the ONT Terminal 4 parking lot. Construction at the ONT Terminal 4 Station would occur for approximately 15 months. No road closures are anticipated for staging at the ONT Terminal 4 Station. Equipment needs would include the following: a piling rig, a crawler crane, concrete trucks, muck trucks, a compressor, a generator, a water treatment plant, a wheel wash, a wheel loader, backhoes, and excavators.

2.2.3.5 Construction Details for the Tunnel

A tunnel boring machine would be used to construct the tunnel approximately 70 feet below the ground surface. Tunnel boring machines are typically used in the construction of infrastructure projects to build deep underground tunnels by boring, or excavating, through soil, rocks, and/or other subsurface materials. The tunnel boring machine would be launched from the Cucamonga Station and retrieved from the ONT Terminal 2 Station construction site. A large crane would be used to assemble and disassemble the tunnel boring machine from the excavation and receiving pits. OIAA height limits at ONT and Rancho Cucamonga, 135 feet and 160 feet, respectively, would restrict crane heights.

The tunnel boring machine would operate six days a week, with maintenance occurring each Sunday. Construction of the entire tunnel would take approximately 22 months. Both ends of the tunnel would need to be constructed via direct excavation (cut and cover) to launch or retrieve the tunnel boring machine. After mining is completed and tunnel boring machine logistics are demobilized, both ends of the tunnel would be utilized to build the invert roadway, walkways, center wall, and mechanical, electric, and plumbing systems.

Vehicle ramps connecting to the tunnel would be constructed via direct excavation, as well. Equipment at the tunnel boring machine launch site would include trucks, a crane, excavators, a grout plant, a compressor plant, a tunnel fan, and cooling towers. The launch area would also store tunnel construction materials (rail, pipe, ducts, etc.) and stockpile excavated material.

2.2.3.6 Construction Details for Ventilation Shaft

The vent shaft could be constructed before or after the construction of the tunnel and would be installed using a similar construction methodology to that of the tunnel and take approximately 6 months to complete. A drill rig would install up to five piles deep per day, each 70 feet deep. Piles would be drilled (i.e., no impact driving). The access shaft would then be excavated. The excavation would be supported by an internal bracing system. The ventilation shaft would require a construction staging area approximately 0.62 acre (27,000 square feet). Anticipated equipment at the location would include haul trucks, a drill rig, a crane, an excavator, a wheel loader, a compressor, and a ventilation fan. The staging area would include material storage, stockpiles of excavated material, water treatment, a workshop, a construction office, and an employee parking.

2.2.3.7 Construction Details for Utility Relocation

Utility relocations are not anticipated for the construction of the proposed tunnel, except at the launch and retrieval locations at either the Cucamonga Metrolink Station site or ONT. The remainder of the utility relocations would be associated with the ventilation/emergency access shaft. Multiple utilities would be relocated to allow for the construction of the access shaft, including: potential electric underground distribution cables owned and operated by Southern California Edison; landscape irrigation line owned and operated by the City of Ontario; and Caltrans fiber optic duct bank. In a future project phase, coordination with the existing utility service providers prior to utility relocation would be conducted to reduce potential impacts to utility service and minimize disruptions. While the locations of existing utilities have been identified as discussed above, the specific locations of relocated utilities are pending final design and would be confirmed in coordination with utility service providers. Relocations would be in previously disturbed areas or established ROW close to their existing locations and would stay within the proposed Project area.

2.2.4 Build Alternative Easements

The Build Alternative would require easements from 19 properties. This includes the need for 12 permanent subsurface easements, two permanent surface easements, and five parcel acquisitions for both subsurface and surface easements. Seven of the easements would be for the three stations and would total approximately 2 acres. SBCTA would require these easements for construction and/or operation of the proposed Project. Land uses for the parcels where these easements would be required include industrial, transportation facilities, utilities, and commercial. The owners of these parcels include SBCTA and City of Rancho Cucamonga (Cucamonga Metrolink Station west and east parking lots), OIAA, a utility service provider, and some private owners. No relocations of businesses and residences would be required to construct the Build Alternative. Figure 3.3-1 in Section 3.3 includes the parcel numbers and the types of easements that would be required for the proposed Project. In addition to the easements, the Build Alternative would require an encroachment permit from Caltrans for construction and operation of the vent shaft in Caltrans ROW.

2.2.5 Preliminary Cost Estimate and Funding

The estimated capital cost of the Build Alternative is approximately United States dollars ($)538 million. Table 2-3 shows the Project cost and funding sources.

Table 2-3: Project Cost and Funding Sources

Funding Sources	Type	Amount (thousands)
Rail Assets	Local	$ 980
State Transit Assistance	State	$ 18,100
State Transit Assistance	State	$ 37,762
Local Transportation Funds	Local	$ 15,167
FTA 5307	Federal	$21,000
Congestion Management and Air Quality Improvement Program	Federal	$ 59,667
Low Carbon Transit Operations	State	$2,000
Local Transportation Funds	Local	$116,324
Future Grant Opportunities	State/Federal	$267,537
TOTAL PROJECT FUNDING REQUIRED		**$538,537**

Note: Dollar values are in thousands.

2.3 PERMITS AND APPROVALS

Implementation of the Build Alternative would require discretionary actions and permits from the agencies identified in Table 2-4. Appendix F contains a record of coordination with agencies and organizations prior to the publication of this EA.

Table 2-4: Required Approvals and Permits

#	Requirement/Permit	Permitting Agency
1	Draft Cooperating Coordination Agency Plan	Federal Transit Administration, SBCTA,
2	National Environmental Policy Act Compliance	Federal Transit Administration
3	Form 7460-2-Parts 1 and 2 Obstruction Evaluation/Airport Airspace Evaluation	Federal Aviation Administration
4	California Environmental Quality Act Compliance	SBCTA
5	Section 106 of the National Historic Preservation Act (NHPA) Consultation	State Historic Preservation Officer
6	Air Quality Permit (stationary equipment)	South Coast Air Quality Management District
7	Construction General Permit	State Water Resources Control Board
8	Encroachment Permits	Caltrans, Cities of Ontario and Rancho Cucamonga
9	Discretionary Permit for Airport Property	City of Ontario
10	Tree Removal Permits	Cities of Ontario and Rancho Cucamonga
11	Building Permits	Cities of Ontario and Rancho Cucamonga
12	Airport Development Advisory Board approval (design phase)	Ontario International Airport Authority

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM CONSIDERATION

Several transit alternatives that could connect to ONT have been evaluated, screened, and refined since 2008. Based on technical analysis, cost considerations, and public input, previous alternatives have been considered but eliminated from further consideration as part of this Project (see Table 2-5). These previous studies also helped SBCTA define its proposed Project to evaluate further under NEPA and CEQA. Details of the alternatives considered but eliminated are provided in Appendix C. Of the four planning studies, two primary studies evaluated potential transit connections to ONT.

Based on the findings of the 2008 Metro Gold Line Study, the ensuing Ontario Airport Rail Access Study (SANBAG 2014) carried forward the recommended alternatives from the 2008 study while studying new options for connecting nearby Metrolink stations to ONT. These alternatives were evaluated on their viability to meet the purpose and need of the project, and screening criteria. Screening criteria were developed based on the identified transportation and mobility problems within a corridor, problems and issues of communities along the corridor, and an understanding of the socio-economic/environmental conditions. A total of nine screening criteria were developed to determine potential alternatives, which include: walk time to terminals, improving transit travel time to ONT, number of mode transfers, service for peak flight times, ridership potential, capital and operating cost, impact on Metrolink operations, potential for serving immediate activity centers and potential impact on regional transit.

In 2018, SCAG completed its own Inter-County Transit and Rail Connectivity Study.

Table 2-5: Overview of Previous Studies

Study	# of Initial Alternatives	# of Alternatives Evaluated	Description of Recommended Alternatives
Strategic Planning Report for Metro Gold Line Foothill Extension (Metro Gold Line Foothill Extension Construction Authority 2008)	13	3	Light rail transit extensions from Los Angeles County Metropolitan Transportation Authority Montclair Station via Cucamonga Creek and Vineyard Avenue
Ontario Airport Rail Access Study (San Bernardino Associated Governments 2014)	32	2	Light rail transit extension via Cucamonga Creek and Diesel Multiple Unit shuttle from Cucamonga Station via Deer Creek
Inter-County Transit and Rail Connectivity Study (Southern California Association of Governments 2018)	38	8	Light rail transit extensions or bus shuttle from Los Angeles County Metropolitan Transportation Authority Montclair Station, Diesel Multiple Unit shuttle or commuter hybrid rail extension from Cucamonga Station
Hybrid Rail Service Planning Study (San Bernardino County Transportation Authority 2018)	N/A	N/A	Precluded the possibility of hybrid rail service from Cucamonga Station, opting for shuttle-style service instead

A chronological summary of the planning studies and its findings is provided in the Project Background and History Report (2023). Refer to Appendix C.

A follow-up Hybrid Rail Planning Study completed by SBCTA analyzed the alternatives as represented by Alternative A-3, Alternative A-4, and Alternative A-7 (see Table 2-6).

Table 2-6: Alternatives Previously Considered

Alternative	Meets Purpose and Need?[1]	Meets Screening Criteria?[2]	Feasibility/ Prudence	Environmental Concerns	Estimated Capital Cost (Millions)
Alternative A-3: Stand-alone Diesel Multiple Unit or Zero-Emission Multiple Unit from the Cucamonga Station to ONT via Hermosa Avenue	Yes	Yes	Capacity of rail system exceeds projected ridership	Potential at-grade conflicts including reductions in roadway capacity and impacts to intersection(s) with poor LOS	$618-$727[3] $976 - $1,017[6]

Alternative	Meets Purpose and Need? [1]	Meets Screening Criteria? [2]	Feasibility/ Prudence	Environmental Concerns	Estimated Capital Cost (Millions)
Alternative A-4: Stand-alone Diesel Multiple Unit or Zero-Emission Multiple Unit service from the Cucamonga Station to ONT via Deer Creek and Cucamonga Creek	Yes	Yes	Capacity of rail system exceeds projected ridership	ROW acquisition in environmental justice (EJ) communities, impacts to flood control facilities	$663-$776 [3] $989-$1,019[6]
Alternative A-7: Stand-alone Diesel Multiple Unit or Zero-Emission Multiple Unit from the Upland Station to ONT via Cucamonga Creek	No	Yes	Capacity of rail system exceeds projected ridership	Conflicts with active freight service along rail spur, and potential at-grade conflicts at 4th Street	$629-$735[3]
Alternative B-2: Bus shuttle from the Cucamonga Station to ONT by way of the Ontario Center and Ontario Mills	Does not provide sufficient reliability or convenience	Low ridership potential, minimally improves transit travel time to ONT	Short-term solution that does not meet long-term ridership projections or project objectives	Potential impacts to intersection(s) with poor LOS, increased greenhouse gas emissions	$2M-$4[3] $6.1[6]
Alternative C-5 Diesel Multiple Unit or commuter rail from Redlands Metrolink Station to Cucamonga Station and continuing to ONT via Cleveland Avenue	Yes	High capital and Operation and Maintenance costs	Higher cost of construction and operations for similar level of service as Rancho Cucamonga connections (A-3, A-4, A-7)	ROW acquisition in EJ communities	$854-1,004[3]
Alternative D-1: Extension of LA Metro Gold Line light rail transit to ONT via Cucamonga Creek	No	High Operation and Maintenance cost, potential impact to Metrolink operations	Higher cost than local ONT service while only serving passengers traveling from the west	ROW acquisition in EJ communities, impacts to flood control facilities	$636-741[3]
2008 Gold Line Extension of LA Metro Gold Line light rail transit to ONT via Vineyard and Holt Avenues	No	High Operation and Maintenance cost, potential impact to Metrolink operations	Higher cost than local ONT service while only serving passengers traveling from the west	Potential impacts to intersection(s) with poor LOS, ROW acquisition in EJ communities	N/A

Alternative	Meets Purpose and Need?[1]	Meets Screening Criteria?[2]	Feasibility/ Prudence	Environmental Concerns	Estimated Capital Cost (Millions)
2008 Gold Line Extension of LA Metro Gold Line light rail transit to ONT via Baldwin Branch	No	High Operation and Maintenance cost, potential impact to Metrolink operations	Higher cost than local ONT service while only serving passengers traveling from the west	Conflict with new Baldwin Park Branch bike trail and potential noise and vibration impacts in EJ communities	$400M[4]
Southern California Association of Governments 2018 Metrolink service along San Bernardino Line with additional spur to ONT	Yes	High Operation and Maintenance cost, potential impact to Metrolink operations	Existing single-track infrastructure prevents reliable service to ONT without substantial siding or double-track improvements	ROW acquisition in EJ communities, impacts to flood control facilities with additional spur to ONT	$881M[5]
Metrolink Zero-Emission Multiple Unit service from LA Union Station via the Alhambra Subdivision	No	High Operation and Maintenance cost, potential impact to Metrolink operations	Higher cost than local ONT service while only serving passengers traveling from the west	Potential impacts to intersection(s) with poor LOS, visual impacts to designated historic districts	>$776M

Notes:
[1] Reflects updated Purpose and Need which includes providing a direct connection from the Cucamonga Metrolink Station to ONT.
[2] Screening criteria as defined in the 2014 Ontario Airport Rail Access Study.
[3] Cost estimates prepared by HDR as part of the 2014 Ontario Airport Rail Access Study.
[4] Cost estimate prepared by KOA Corporation as part of the 2008 Gold Line Foothill Extension Study.
[5] Cost estimate prepared by Mott MacDonald as part of the 2018 Hybrid Rail Planning Study.
[6] Estimated capital costs were derived from the 2014 Ontario Airport Rail Access Study. Latest estimates in current dollars are provided in Appendix C

In 2020, alternative recommendations from the planning studies resulted in the further evaluation of Alternatives A-3, A-4, B-2 (see Table 2-6), and the tunnel alternative which were further evaluated by SBCTA.

In 2023, SBCTA identified the tunnel alternative and three potential build alternatives from previous planning studies for further evaluation to determine the reasonableness and feasibility of the alternatives to meet the purpose and need. The project alternatives included:

- Alternative 1 – Tunnel to ONT via Milliken Avenue and Airport Drive.

- Alternative 2 - Rancho Cucamonga to ONT via Hermosa/Turner Rail Alignment (formerly A-3 in the Rail Access Study [SANBAG 2014]).
- Alternative 3 - Rancho Cucamonga to ONT via Deer Creek Rail Alignment (formerly A-4 in the Rail Access Study [SANBAG 2014]).
- Alternative 4 - Rancho Cucamonga to ONT Bus Shuttle (formerly B-2 in the Rail Access Study [SANBAG 2014]).

The screening process evaluated the project alternatives based on their capacity to achieve the project objectives. No weighting was applied to the results of the screening evaluation as each objective was given equal consideration. Based on the findings of the performance of alternatives, Alternative 1 consisting of a tunnel system, was recommended to be studied as the Build Alternative as part of the Environmental Analysis phase. Alternative 1 best aligns with the proposed Project's purpose, needs, and goals as it would provide the highest benefits.

Compared to Alternative 1, Alternatives 2 and 3 would result in additional environmental consequences, including:

- Acquisitions and Displacements: Commercial and residential acquisitions and displacements
- Community: A new transportation facility placed within an established community
- Transportation and Traffic: Impacts to local streets, I-10, and Metrolink service during construction
- Aesthetics and Visual: Impacts resulting from new at-grade and elevated rail features and stations
- Hydrology and Floodplain: A new rail facility located within a 100-year flood zone (Alternative 3 only)
- Air Quality: Increased emissions with operation of Diesel Multiple Units
- Noise and Vibration: Increased noise and vibration adjacent to residential units
- Section 4(f): Impact to bicycle path adjacent to the Deer Creek channel (Alternative 3 only)
- Biological Resources: Potential impact to special-status species
- Permits: Section 401, 404, and 1602 permits required

In addition to less environmental consequences, Alternative 1's estimated capital cost of $538 million is substantially lower than Alternative 2 (between $976 million and $1.2 billion) and 3 (between $989 million and $1.2 billion) and has a lower risk of cost increase. Additional information on cost is available in Appendix C.

Alternative 4 would result in the fewest environmental issues and the lowest cost ($6 million) compared to the other alternatives, but it does not perform well in terms of the mobility, service reliability, and mobility capacity. Alternative 4 would have the slowest travel time to and from ONT (16 minutes), the lowest reliability, as it would travel on existing roads in mixed traffic, and the lowest passenger capacity, in terms of the number of passengers per hour.

For these reasons, Alternatives 2, 3, and 4 have been dismissed from further evaluation in this EA.

Table 2-6 summarizes alternatives previously considered by SBCTA from various studies but eliminated from further consideration. Additional background information on alternatives previously considered is available in Appendix C.

3 NO EFFECTS

This chapter describes the affected environment and environmental consequences for resources of concern in the proposed Project area. Resources that have been eliminated from further analysis are identified in Section 3.1.

The environmental consequences address potential impacts of the No Build and Build Alternatives and identify avoidance, minimization, and mitigation measures (MM) for potential adverse effects associated with the Build Alternative. See Appendix G for a full list of MMs for the Build Alternative.

Various technical reports have been prepared to support the resource discussions and are available for viewing online as part of the separate CEQA document or are appended to this EA (see specific references in the resource sections).

3.1 RESOURCES WITH NO EFFECTS

The following resources are either not present in the proposed Project area or would not be affected by either the No Build or Build Alternative:

- **Coastal Zones:** The proposed Project area is not in or near a defined coastal zone, and the alternatives have no potential to affect coastal resources.
- **Farmland:** The proposed Project area is primarily urban, and no farmland or soils that could support farmland are in the area. The alternatives would not convert or otherwise affect farmland.
- **Federally Listed Species:** Habitat conditions in the proposed Project area are not suitable for any federally listed species based on the *Biological Resource Technical Report* (SBCTA 2024a), and the Build Alternative would have no effect on federally listed species.

- **Invasive Species:** Although invasive species are present in the proposed Project area, standard construction practices would be implemented during construction activities associated with the Build Alternative to avoid the spread of invasive plants in compliance with Executive Order 13112.
- **Migratory Birds:** Based on the developed nature of the proposed Project area, the potential for migratory birds to nest in the area is considered low. Minimal vegetation removal that could remove active nests is proposed as part of the Build Alternative, and pre-construction surveys would be implemented during the nesting season (February 15 through August 31) with no-disturbance buffers being established, if needed, to ensure no impacts to migratory birds occur (MM-BIO-1) and comply with the Migratory Bird Treaty Act.
- **Parkland and Section 6(f) Properties:** No parks or recreational facilities are in the proposed Project area, and the alternatives would not affect parkland or lands subject to Section 6(f) protection.
- **Scenic Highways:** No scenic highways or routes are in or near the proposed Project area, and the alternatives would not affect any scenic corridors associated with such highways.
- **Section 4(f) Properties:** No Section 4(f) properties are in the proposed Project area, and the alternatives would not result in use of any Section 4(f) properties.
- **Waters of the United States (U.S.):** The proposed Project area does not contain any wetlands or navigable waters, and the alternatives would not affect these water resources. Although several ditches are in the proposed Project area, neither alternative would result in discharge of fill or waste material into them, and no effects to waters of the U.S. are expected.
- **Wild and Scenic Rivers:** No wild or scenic rivers are in or near the proposed Project area, and the alternatives have no potential to affect designated rivers.

3.2 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

This section describes air quality, GHGs, and energy resources in the proposed Project area and vicinity. Air quality is defined by the concentration of pollutants in relation to their impact on human health. Air quality effects are evaluated on a local and regional scale; therefore, the air quality study area includes the South Coast Air Basin (SCAB), where air quality is managed by the South Coast Air Quality Management District (SCAQMD). The Clean Air Act regulates air pollutants across the nation and establishes National Ambient Air Quality Standards (NAAQS) for criteria pollutants, such as ozone, carbon monoxide, and particulate matter. As a transit project, the transportation conformity rule applies (40 CFR Parts 51 and 93).

GHGs, as defined in Section 19(i) of Executive Order (EO) 13514, include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The study area for GHG effects

extends north from Airport Drive to Arrow Route and east from Grove Avenue to I-15. There is no federal threshold or standard for the evaluation of GHG emissions nor have standards been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Therefore, cities and counties in the region utilize the thresholds developed by the SCAQMD, as the agency responsible for regional attainment of federal ambient air quality standards, to evaluate the potential project impacts for criteria pollutants. This section utilizes the thresholds developed by the SCAQMD to evaluate GHG effects. Energy resources include petroleum, natural gas, coal, electricity, and renewables. The study area for energy resource effects is the same as for GHG effects, north from Airport Drive to Arrow Route and east from Grove Avenue to I-15. Although there are no specific NEPA criteria for analyzing impacts to energy resources, 40 CFR Sections 1502.16(a)(7) and (8) direct that environmental impact statements shall include a discussion of the "energy requirements and conservation potential of various alternatives," "natural or depletable resource requirements and conservation potential of various alternatives," and, if applicable, mitigation measures. Therefore, as with GHG emissions, the state, counties, and cities, have developed policies and plans to analyze energy consumption at the project level.

Information in this section is based on air quality monitoring data and modeling of emissions associated with the alternatives, which are described in more detail in the *Air Quality Technical Report* (SBCTA 2024d; Appendix H of this EA), *Greenhouse Gas Emissions Technical Report* (SBCTA 2024a), and *Energy Technical Report* (SBCTA 2024a).

3.2.1 Affected Environment

3.2.1.1 Air Quality

The SCAB is bounded by the Pacific Ocean to the west; San Gabriel Mountains, San Bernardino Mountains, and San Jacinto Mountains to the north and east; and San Diego County line to the south. The topography and climate of Southern California combine to make the SCAB an area of high air pollution potential. According to the meteorological monitoring station at ONT, the mean daily temperature ranges from 55.2 degrees Fahrenheit (°F) in December to 80.1°F in August. Precipitation peaks between December and March, while it is infrequent the rest of the year, especially during summer months.

San Bernardino County is designated as an attainment or maintenance area for all criteria pollutants except ozone, particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), because the County exceeds the NAAQS for these pollutants. Nonattainment of ozone, PM_{10} and $PM_{2.5}$, is primarily due to the topography and climate of San Bernardino County, previously described, and presence of truck freight traffic. Criteria pollutants in the vicinity of the proposed Project area are monitored by the Pomona, Upland, Fontana, and Ontario Route 60 monitoring stations. The Pomona station is approximately 10 miles to the west; the Upland station is approximately 3 miles to the northeast; the Fontana station is approximately 11 miles to the northeast;

and the Ontario Route 60 station is approximately 4 miles to the southeast of the proposed Project area. The most recent monitor values for these monitoring stations (2019 through 2021) show compliance with carbon monoxide (CO), nitrogen dioxide, and sulfur dioxide. Based on the monitoring data from 2019 through 2021, as presented in the Air Quality Technical Report (SBCTA 2024d), Table 53, Air Quality Monitoring Concentrations, from 2019 through 2021 the Pomona and Upland monitoring stations consistently documented exceedances of 8-hour ozone standard, the Fontana and Ontario Route 60 monitoring stations documented exceedances of the 24-hour and annual $PM_{2.5}$ standard, and the Upland and Fontana monitoring stations documented exceedances of the annual PM_{10} standard.

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality effects from projects. Sensitive receptors include people in residences, hospitals, or convalescent facilities, where it is possible that an individual could remain for 24 hours. Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution because exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time. Sensitive receptors closest to the proposed Project area include commercial, retail, and restaurants along Milliken Avenue and East Airport Drive, an apartment community near the Cucamonga Metrolink Station, and a restaurant and airport terminals at ONT.

3.2.1.2 Greenhouse Gases

The 2016 San Bernardino County Regional Greenhouse Gas Reduction Plan found that the largest portion of Rancho Cucamonga's 2016 emissions were from transportation (47%), building energy (natural gas and electricity) (45%), and waste (5%). The largest portion of Ontario's 2016 emissions were from transportation (41%), building energy (natural gas and electricity) (34%), and agriculture/off-road equipment (18%). Similar to statewide emissions, transportation-related GHG emissions contributed the largest portion of emissions in the cities of Rancho Cucamonga and Ontario in 2016.

3.2.1.3 Energy

Energy demand in California is primarily driven by the state's transportation sector, as more motor vehicles are registered in California than any other state, and worker commute times are some of the longest in the country. However, the state also has a high electricity demand with natural gas, hydroelectric, and nonhydroelectric renewable energy sources providing much of the electric power, supplemented by imported electric power.

Based on electricity consumption obtained from the California Energy Commission, approximately 16,180,811,158 kilowatt-hours (kWh) of electricity were consumed, primarily by nonresidential consumers and approximately 561,360,617 therms of natural gas were consumed in San Bernardino County in 2021, also primarily by nonresidential consumers. Based on fuel consumption obtained from EMFAC2021, approximately 915.5 million gallons of gasoline and approximately 321.6 million gallons of diesel fuel were consumed from vehicles operating in San Bernardino County in 2022.

3.2.2 Environmental Consequences

3.2.2.1 No Build Alternative

The No Build Alternative would not result in any construction emissions. However, the No Build Alternative would not have a net decrease in GHG emissions without the use of new autonomous electric vehicles for transit service between the Cucamonga Metrolink Station and ONT. As shown in Table 3.2-4, vehicle miles traveled would continue to increase under the No Build Alternative, thereby leading to increased air pollution, GHG emissions, and energy consumption. Long-term air quality benefits and reductions in energy consumption would not be achieved, as transportation options to ONT would be similar to current conditions with high numbers of vehicle miles traveled and emissions associated with the existing transportation sources. Therefore, the No Build Alternative may result in an adverse effect to air quality, GHG emissions, and energy.

3.2.2.2 Build Alternative

3.2.2.2.1 Air Quality

Construction of the Build Alternative would result in PM_{10}, $PM_{2.5}$, nitrogen oxides (NO_X), and volatile organic compound (VOC) emissions from the diesel exhaust associated with construction equipment and construction worker vehicles that generate exhaust emissions from fuel combustion as well as fugitive dust emissions generated from earth disturbance during site grading for aboveground features and construction vehicles using dirt roadways within or adjacent to construction sites. Temporary on-road vehicle and off-road construction equipment emissions associated with the new stations, vent shaft, and tunnel construction (employing a TBM) were estimated and summarized in Table 3.2-1, Table 3.2-2, and Table 3.2-3.

Table 3.2-1 shows the maximum annual emissions (in tons) generated during the 56-month construction window for the proposed Project. Table 3.2-2 and Table 3.2-3 show the maximum daily construction emissions (pounds per day [lbs/day]) at the regional and localized levels, respectively. Table 3.2-2 provides the combined Maximum Daily Regional Construction Emissions (in pound per day) along with the individual construction area's maximum daily regional construction emissions (in pounds per day).

Although not directly applicable for an FTA project which is governed by the transportation conformity rule, the de minimis thresholds in terms of annual nonattainment or maintenance pollutant emissions established in the Clean Air Act General Conformity Rule (40 CFR Parts 51 and 93) were used to determine

if the construction emissions would be de minimis under the Build Alternative. As shown in Table 3.2-1, the maximum annual construction emissions for each applicable pollutant over the construction duration were below the respective de minimis thresholds and the Build Alternative would have no adverse effects to air quality.

The construction emissions were also compared with the applicable local emissions thresholds. As shown in Table 3.2-2, construction of the Build Alternative would result in emission of criteria pollutants such as PM_{10}, $PM_{2.5}$, NO_X, and VOC. Emission of criteria pollutants can adversely affect human health and the environment due to exposure to toxic substances in the air. Sensitive receptors closest to the proposed Project area include commercial properties within 0.10 mile of all four aboveground construction locations (MSF, stations and Vent Shaft Design Option), an apartment community with balcony access to the outdoors within 0.23 mile of the Cucamonga Metrolink Station site, and restaurants without outdoor seating approximately 0.10 mile from both Vent Shaft Design Option locations.

Table 3.2-3 provides maximum daily localized construction emissions per construction site. Consistent with SCAQMD Localized Significance Threshold (LST) Methodology, localized construction emissions represent emissions that are produced within the construction site only. As shown in Table 3.2-3, based on the size of the construction disturbance area at each construction site and the closest distance to a sensitive receptor, sensitive receptors would not experience emissions in excess of air quality standards. These ambient air quality standards were established at levels that provide public health protection and allow adequate margin of safety, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Therefore, construction emissions would not result in levels of air pollution that would adversely affect sensitive receptors.

Although construction of the Build Alternative would have a temporary increase of local or regional emissions, the increase in emissions would not exceed SCAQMD thresholds and would cease after construction. As shown in Table 3.2-2, construction of the Build Alternative would not exceed maximum daily construction emissions for criteria pollutants. The Build Alternative would implement MM-AQ-1, which includes basic emission control practices and dust control measures during construction to minimize potential effects from pollutant emissions. Implementation of MM-AQ-1 would ensure that during construction, the Build Alternative would result in no adverse effects related to air quality.

Table 3.2-1: Maximum Construction Annual Emissions (ton/year)

Construction Area	NO_x	PM_{10}	$PM_{2.5}$	CO	VOC	SO_x
Cucamonga Metrolink Station and TBM Retrieval	2.6	5.2	0.6	3.1	0.3	0.02
Vent Shaft Design Option	1.7	1.6	0.2	2.0	0.2	0.01
ONT Terminal 4 Station	1.4	3.0	0.4	1.7	0.2	0.01
ONT Terminal 2 Station	1.9	1.8	0.3	2.3	0.3	0.01
Maximum Annual Emissions from Build Alternative Construction (tons)	**7.6**	**11.5**	**1.4**	**9.1**	**0.9**	**0.05**
General Conformity Rule De Minimis Threshold	10	100	70	100	10	NA
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**NA**

Source: *Air Quality Technical Report* (SBCTA 2024d) Note: SO_X = sulfur oxide

Table 3.2-2: Maximum Daily Regional Construction Emissions (lbs/day)[1]

Construction Area	NO_x	PM_{10}	$PM_{2.5}$	CO	VOC	SO_x
Cucamonga Metrolink Station and TBM Retrieval	27.7	33.9	4.5	28.8	3.3	0.1
Vent Shaft Design Option	25.4	17.6	2.6	29.7	3.0	0.1
ONT Terminal 4 Station	22.6	33.6	4.1	25.8	2.7	0.1
ONT Terminal 2 Station	36.2	34.4	4.8	45.3	5.0	0.2
Maximum Daily Regional Construction Emissions[2]	**95.2**	**118.3**	**15.0**	**107.0**	**11.1**	**0.6**
SCAQMD Threshold	100	150	55	550	75	150
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: *Air Quality Technical Report* (SBCTA 2024d)

[1] The California Air Resources Board EMFAC2021 and OFFROAD2021 models were used to estimate emission factors for on-road and off-road criteria pollutants. Construction off-road equipment, size and operating schedule was provided by HNTB. Fugitive emissions were based on total size (in acres) of land disturbed, which was also provided by HNTB. The number of on-road trucks and employees were based on the conceptual construction trucking schedule for excavation, conceptual number of construction employees, arrival, and departure times. Refer to the Air Quality Technical Report for further detail related to methodology. Note the combined Maximum Daily Regional Construction Emissions is what is compared to SCAQMD thresholds and its total will be less than the sum of the individual construction area daily emissions as not all construction area timelines will overlap.

[2] Maximum Daily Regional Construction Emissions represents the maximum combined daily emissions at all construction sites. This total will be less than the sum of individual construction area daily emissions as not all construction area timelines will overlap.

Table 3.2-3: Maximum Daily Localized Construction Emissions (lbs/day)

Construction Area	NO_x	PM_{10}	$PM_{2.5}$	CO
Cucamonga Metrolink Station and TBM Retrieval	19.27	33.22	4.17	19.68
SCAQMD Threshold for Southwest San Bernardino Valley (approximately 2 acres of site disturbance, receptor distance of 25m for NO_x/CO and 200m for PM_{10}/$PM_{2.5}$)[1]	170	66	36	1,232
Exceed Threshold?	**No**	**No**	**No**	**No**
Vent Shaft Design Option	16.98	16.86	2.33	20.55
SCAQMD Threshold for Southwest San Bernardino Valley (approximately 1 acres of site disturbance, receptor distance: 100m for NO_x/CO and 200m for PM_{10}/$PM_{2.5}$)[1]	211	103	32	2,423
Exceed Threshold?	**No**	**No**	**No**	**No**
ONT Terminal 4 Station	14.14	32.86	3.84	16.70
SCAQMD Threshold for Southwest San Bernardino Valley (approximately 2 acres of site disturbance, receptor distance: 50m for NO_x/CO and 500m for PM_{10}/$PM_{2.5}$)[1]	263	160	150	3, 218
Exceed Threshold?	**No**	**No**	**No**	**No**
ONT Terminal 2 Station	27.78	33.63	4.55	36.21
SCAQMD Threshold for Southwest San Bernardino Valley (approximately 2 acres of site disturbance, receptor distance: 25m for NO_x/CO and 500m for PM_{10}/$PM_{2.5}$)[1]	170	160	150	1,232
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: *Air Quality Technical Report* (SBCTA 2024d)

[1] Receptor distance was determined based on aerial review of the construction area and nearby sensitive locations. Distance to the closest sensitive receptor for NOx and CO were often shorter than PM2.5 and PM10 because NOx and CO also must consider commercial and industrialized locations. Refer to the Air Quality Technical Report for further details regarding methodology.

The Build Alternative aims to encourage a shift from single-occupancy vehicles using the surrounding road network to travel to and from ONT to the use of mass transit, thereby supporting goals to reduce mobile-source emissions. Operation of the new transit service would have a net air quality benefit, as reduced VMT results in reduced combustion emissions and the use of the proposed electric mass transit option replaces combustion vehicle miles with no meaningful effects on traffic volumes or vehicle mix, resulting in no adverse long-term operational effects on emissions.

Under the Clean Air Act transportation conformity rule, transportation conformity is enforced at both the regional level and the project level. SBCTA has initiated consultation with the Transportation Conformity Working Group and it is anticipated that the working group will concur with the preliminary determination that the project is not required to conduct a particulate matter hotspot analysis. On a regional level, the

proposed Project, TIP ID: 20192720, is currently included in the 2023 FSTIP. Therefore, a separate regional-level emissions analysis for the nonattainment pollutants of NOx and VOC (ozone [O_3] precursors), PM_{10}, and $PM_{2.5}$ is not required.

Based on the reduction in VMT, as shown in Table 3.2-4, operation of the Build Alternative would have a net air quality benefit, as reduced VMT results in reduced combustion emissions. Therefore, operation of the Build Alternative would result in no adverse effects related to air quality.

Table 3.2-4: San Bernardino County-wide Net Change in Operational VMT

Year	Existing VMT	No Build Alternative VMT	Build Alternative VMT	VMT Difference between Build Alternative and No Build Alternative
2016	330,113,226	---	---	---
2031	---	376,199,889	376,178,116	-21,773
2051	---	437,648,772	437,603,538	-45,234

Source: Air Quality Technical Report (SBCTA 2024d); AECOM 2024a

3.2.2.2.2 Greenhouse Gas Emissions

During construction, GHGs would be emitted through the operation of construction equipment, haul trucks, and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. Construction of the Build Alternative would result in 12,029 metric tons of carbon dioxide equivalent ($MTCO_2e$). These emissions amortized over a 30-year period would result in the emission of 401 $MTCO_2e$ annually as a result of construction of the Build Alternative, which would not exceed the SCAQMD thresholds. Additionally, construction GHG emissions would be temporary and short-term. Compliance with existing GHG regulations and equipment specifications would ensure that construction-related GHG emissions associated with the Build Alternative would not exceed the SCAQMD project threshold. Therefore, construction of the Build Alternative would have no adverse effects.

Implementation of the Build Alternative would result in a net decrease in GHG emissions compared to the No Build Alternative, as the Build Alternative would reduce the GHG-emitting vehicles driving the last portion of their route with electric shuttles between the Cucamonga Metrolink Station and ONT. The Build Alternative would result in 888 $MTCO_2e$ per year which is less than SCAQMD's threshold of 3,000 $MTCO_2e$ per year. Therefore, operation of the Build Alternative would result in no adverse effects related to GHG emissions.

3.2.2.2.3 Energy

Construction of the Build Alternative would require energy for the manufacturing and transport of building materials, preparation of the site for grading and tunnel boring activities, tunnel boring, utility installation, paving, and building construction and architectural coating. Construction equipment (excluding the tunnel boring machine) would require the use of petroleum fuels, while the boring machine would be powered by electricity.

Over the entire construction period, the Build Alternative would use approximately 225,000 kWh of electricity and consume approximately 2,601,770 gallons of diesel fuel and approximately 208,307 gallons of gasoline. In 2021, approximately 16,767,235,877 kWh were consumed in San Bernardino County. Construction of the Build Alternative would increase the annual electricity consumption in San Bernardino County by less than 0.01%.

Table 3.2-5: Build Alternative Energy Consumption Estimates During Construction

Energy Type	Total Energy Consumption	Annual Percentage Increase Countywide
Electricity (kWh)	225,000	<0.01 %
Gasoline Fuel (total gallons)	208,307	0.01 %
Diesel (total gallons)	2,601,770	0.20 %

Source: AECOM 2024a

Approximately 915.5 million gallons of gasoline and approximately 321.6 million gallons of diesel fuel were consumed from vehicles operating in San Bernardino County in 2022. Therefore, construction of the Build Alternative would increase the annual fuel use in San Bernardino County by approximately 0.20% for diesel fuel usage and by approximately 0.01% for gasoline fuel usage. The Build Alternative would comply with California Air Resources Board regulations, California Code of Regulations Title 13, Section 2449, and California Department of Resources Recycling and Recovery Sustainable (Green) Building Program regulations related to energy efficiency. Therefore, construction of the Build Alternative would have no adverse effect on energy consumption or efficiency.

Operational energy consumption for the Build Alternative would primarily be from the MSF operations, shuttle station operations, and electric shuttle charging. Operation of the Build Alternative would demand a total of 74,129,377 kWh of electricity per year and 428,861 kBTU of natural gas per year. Based on electricity consumption obtained from the California Energy Commission, approximately 16,180,811,158 kWh were consumed in San Bernardino County in 2021. Therefore, operation of the Build Alternative would increase the annual electricity consumption in San Bernardino County by less than 0.46%. Based on natural gas consumption obtained from the California Energy Commission, approximately 561,360,617 therms were consumed in San Bernardino County in 2021. One therm equals approximately 100,000 BTU. Therefore, operation of the Build Alternative would increase annual natural gas consumption in San Bernardino County by less than 0.01%. Compliance with applicable Title 24 standards would ensure that once operational, Build Alternative energy demands would not be inefficient, wasteful, or otherwise unnecessary. Therefore, operation of the Build Alternative would have no adverse effect on energy consumption or efficiency.

3.2.3 Avoidance, Minimization, and Mitigation Measures

SBCTA or its contractor will be responsible for implementing the following measure to avoid and/or minimize adverse effects during construction of the Build Alternative.

MM-AQ-1 Implement Basic Construction Emission Control Practices

MM-AQ-1: The following construction measures to limit and reduce air emissions from the construction sites will be implemented:

(A) Control fugitive dust as required by South Coast Air Quality Management District Rule 403 and enforced by South Coast Air Quality Management District staff.

(B) Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

(C) All haul trucks transporting soil, sand, or other loose material off site shall be covered.

(D) Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

(E) Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.

(F) Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

(G) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.

(H) Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Provide clear signage that posts this requirement for workers at the entrances to the site.

(I) Provide current certificate(s) of compliance for California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (California Code of Regulations, Title 13, sections 2449 and 2449.1).

(J) Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

3.3 COMMUNITY AND SOCIOECONOMIC RESOURCES

This section evaluates the potential community, socioeconomic, and land use effects of the No Build and Build Alternatives. NEPA regulations (42 U.S.C. Section 4321 et seq.) require the consideration of potential environmental effects, including potential effects to community character, land uses, and community resources, in the evaluation of any proposed federal agency action. The *Aesthetics and Visual Quality Technical Report* (SBCTA 2024a) evaluates the potential environmental effects on aesthetics and visual resources of the No Build and Build Alternatives. The *Utilities and Service Systems Technical Report* (SBCTA 2024a) evaluates potential environmental effects of utilities and service systems of the No Build and Build Alternatives.

The proposed Project area includes the area that would be physically affected with primary or direct community impacts during the construction period for the Build Alternative. The proposed Project area is coterminous with the maximum disturbance limits for the Build Alternative. The study area for this analysis includes the community surrounding the proposed Project area in which secondary or indirect community impacts could occur. Community impacts typically decrease in magnitude as distance from a project site increases. Therefore, the study area includes those areas within 0.5-mile of the proposed Project area.

3.3.1 Affected Environment

3.3.1.1 Community and Land Use

The land use in and around the proposed Project area is mostly urban in character with large-scale industrial, manufacturing, transportation, surface parking, office, commercial, multi-family residential, hotel, and airport-related land uses. Large areas of vacant or undeveloped lands are located southwest of Cucamonga Metrolink Station, as well as adjacent to and east of ONT. The estimated populations of the Cities of Ontario and Rancho Cucamonga in 2022 were 179,516 and 174,476, respectively. By 2045, these populations are projected to grow by 64.2% and 21.8%, respectively. The City of Ontario's forecasted growth can be partly attributed to the availability of areas for development, such as the Specific Plan areas. Community facilities near the proposed Project area include fire and police stations, various schools, and a hospital. No parks or recreation facilities are located in the proposed Project area. Existing infrastructure includes water, wastewater, telecommunications, power, gas, and drainage along roads and in the developed areas in the proposed Project area. Various service providers operate and maintain the infrastructure.

3.3.1.2 Aesthetics and Visual Quality

The visual setting around the proposed Project area is characterized by the flat appearance of the foreground landscape (developed area), the steep San Gabriel Mountains and San Bernardino Mountains to the north, and views of aircraft taking off and landing at ONT to the south. Buildings associated with

the variety of commercial, industrial, and residential developments and road and airport facilities contribute to the foreground views. At nighttime, a high amount of existing ambient lighting is visible. Views from the proposed Project area include the San Bernardino foothills and San Gabriel Mountains to the north and stretches of open space and undeveloped land. Viewer groups include residents, workers, and travelers using the roads, accessing transit at bus stops and at Cucamonga Metrolink Station, and people traveling to and from ONT. No scenic highways or scenic routes are in or near the proposed Project area.

3.3.1.3 Safety and Security

Primary safety concerns in the proposed Project area are typical of an urban setting, with various traffic concerns on roadways, inconsistent and inaccessible sidewalks along some roads, and security concerns related to the high population centers and airport activities. Metrolink enlists its contracted law enforcement team to provide patrol at the Cucamonga Metrolink Station. Metrolink platforms are equipped with a public notification system to inform transit users of emergency procedures. Other safety and security equipment at stations and/or bus stops include a combination of the following: security cameras, light fixtures, a public announcement system, and emergency telephones. Safety elements for accessing stations and park-and-ride lots include transition walkways, blue-light emergency telephones, limited entry and exit points, and provisions for persons with disabilities.

3.3.2 Environmental Consequences

3.3.2.1 No Build Alternative

The No Build Alternative would not result in any community effects as a result of construction activities, and community demographics in the county and cities would continue to change based on projections for the area. The community would not benefit from a new transit service, as no new link would be created to provide a direct transportation connection from Cucamonga Metrolink Station to ONT for transit passengers. Without a new transit service to ONT, future traffic conditions on the local roads would be expected to worsen as ONT users continue to rely primarily on vehicles and the existing bus service to access the airport. Existing and planned transit services would not provide reliable service between the City of Rancho Cucamonga and ONT, and benefits of a direct service would not be experienced in the community.

3.3.2.2 Build Alternative

3.3.2.2.1 Land Use Changes

Temporary construction easements are anticipated on seven parcels for the contractor to use as construction staging areas, material storage, or access. The use of these areas would temporarily prevent them from being used for their current activities, but the easements would not affect the primary function of the property or cause undue disruption. Some temporary disruptions to regular activities may occur as a result of limited access, reduction of parking, noise, dust, and odors associated with construction

activities. The contractor would be responsible for restoring any temporarily used areas to their former use once the easement is no longer needed.

The proposed facilities associated with the Build Alternative would be compatible with existing land uses and zoning. No property acquisitions, relocations, or displacements would be required, but permanent easements would be needed on an estimated 19 parcels to accommodate the tunnel and stations, primarily for subsurface easements with a few surface easements (see Figure 3.3-1). The subsurface easements would not change land use or zoning requirements and would only authorize the tunnel to be below ground of the properties. The surface easements would allow a change in use of the affected portion of the property, but the proposed use (station, parking, vent shaft, or maintenance facility) would be consistent with the existing allowed uses of the properties. Easements would require compliance with federal, State, and local plans, policies, and regulations, including the Uniform Act and the California Relocation Act, as applicable. Therefore, the Build Alternative would not result in adverse effects to the land uses in the proposed Project area.

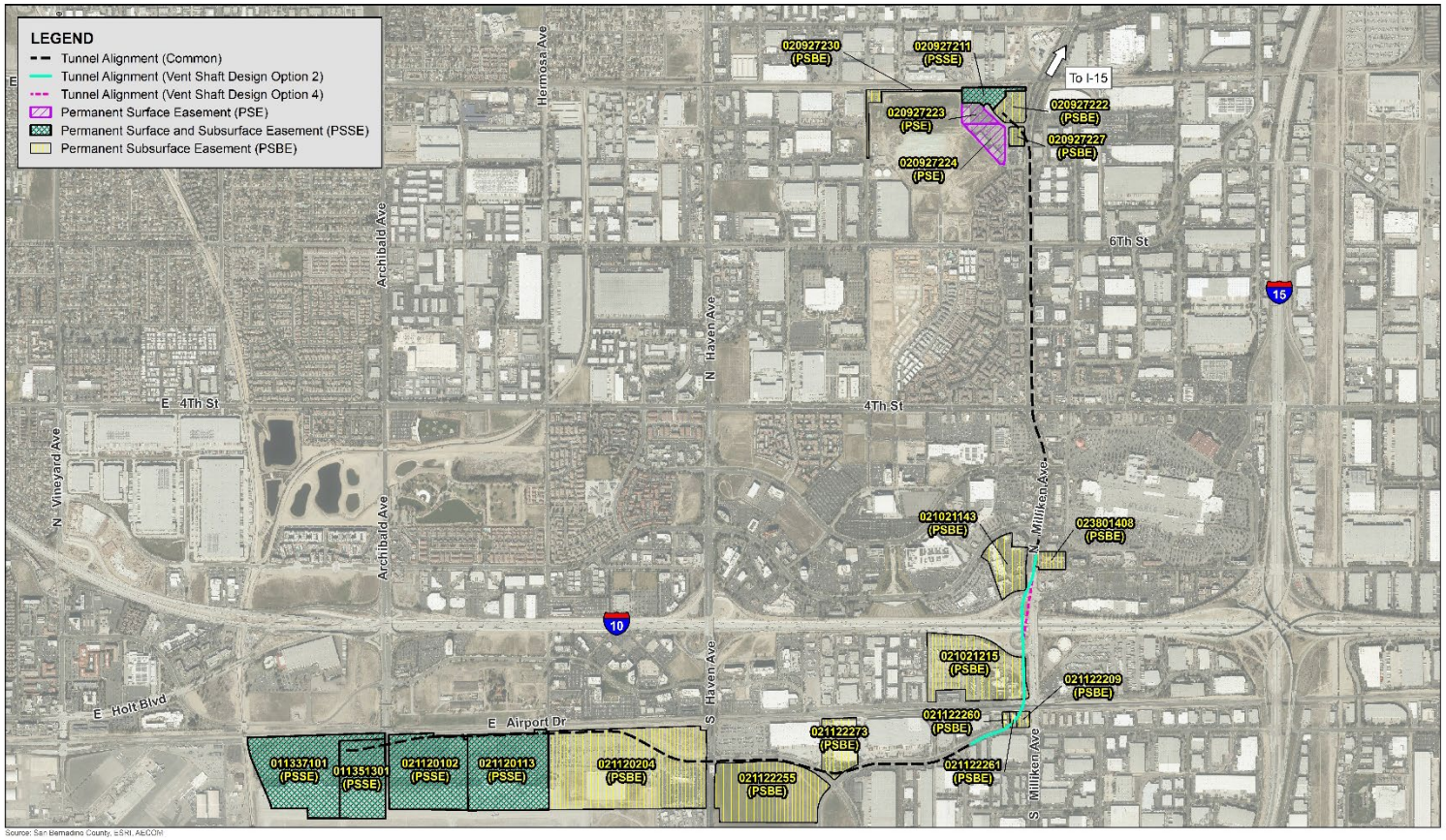
3.3.2.2.2 Community Impacts

Construction activities would cause temporary disruptions to nearby communities from dust and pollutant emissions, noise, and general worker activities in the construction area and from traffic disruptions on nearby roads, as described in other sections of this EA. It is anticipated that local and/or out-of-area construction employees would commute from elsewhere in the region rather than relocate to the proposed Project area for a temporary construction assignment. These types of impacts would be minimized with standard construction practices and mitigation measures described for other resources, such as dust and traffic control.

Operation of the new transit service would benefit the community by providing an alternative transportation option for travelers to ONT. The tunnel would be underground and would not alter the above-ground communities or conflict with urban uses in the cities. The new stations would be at locations that already have parking lots and transit service and would be compatible with the existing uses. Based on its nature and the extent of existing development in and near the proposed Project area, the new transit service would not induce population growth or contribute to changes in the demographics of the surrounding community. The stations would require utility services and would connect into existing infrastructure, and the demand generated by the stations would be negligible and within the existing capacity of existing service providers. Specific utility needs and connections would be coordinated as the design progresses and as part of the construction phase.

Therefore, the Build Alternative would not result in adverse effects to the community character of the proposed Project area.

Figure 3.3-1: Parcels Identified as Easements for the Proposed Project



3.3.2.2.3 Visual Impacts

Construction activities would introduce equipment, materials, exposed soils, and other typical work site features into the visual environment around the proposed stations and vent shaft location. Construction staging areas would be fenced and screened from public vantage points to minimize visibility, and all fencing, materials, equipment, and vehicles would be removed from the work areas when construction is complete. Most tunnel construction would be below ground and would not be visible from nearby areas, and the access points for the tunnel boring machine would be at the station locations where other work would be taking place. Some work areas may be visible from nearby viewpoints and be noticeable by residents, workers, and travelers, but visual changes during construction would be temporary and generally blend in with the existing urban setting.

The Build Alternative would include above-ground features that would be visible from nearby buildings, roads, and properties; however, the above-ground features (i.e., the proposed Cucamonga Station, MSF, ONT stations at Terminals 2 and 4, and vent shaft) would be surrounded by urban development and blend in with the existing visual quality and character of the area. The proposed station and facility at the existing Cucamonga Metrolink Station would be similar in height and design to the existing station and would only be visible in the immediate area around the station, as vegetation serves as a buffer between the existing station and a nearby residential area. The new facilities would alter the visual setting around the existing station, but they would blend in with the development and would not obstruct views of the distant mountains. The proposed vent shaft would be along a raised section of I-10 and would not be noticeable by travelers. It would also generally blend in with the highway and associated disturbed and developed areas. The proposed stations at ONT would be similar to the existing parking lots and airport facilities and would not alter the visual environment at the airport.

Therefore, the Build Alternative would not result in adverse effects to the visual character of the proposed Project area.

3.3.2.2.4 Safety and Security Impacts

Construction activities could create temporary public health and safety effects at and around work areas. As a standard practice, SBCTA will develop and implement a Safety and Security Management Plan to identify construction and worker safety standards, worker safety and health plans, fire/life safety programs, construction on-site security plans, and emergency response and evacuation procedures to maintain the safety of all construction workers and the public.

As a design feature and consistent with existing conditions, closed-circuit television cameras would be placed at the stations monitored by Omnitrans. As the station designs are refined, other safety and security equipment may include a combination of the following: security cameras, light fixtures, a public announcement system, and emergency telephones. Safety elements for accessing stations may also include transition walkways, blue-light emergency telephones, limited entry and exit points, and provisions for persons with disabilities. Compliance with existing health and design requirements and the

Safety and Security Management Plan would ensure that the Build Alternative does not create new safety and security concerns.

Therefore, the Build Alternative would not result in adverse effects to safety and security in the Project area.

3.3.3 Avoidance, Minimization, and Mitigation Measures

Measures identified for other resources, such as air quality and transportation and traffic, would help minimize potential community impacts.

3.4 CULTURAL RESOURCES

This section describes cultural resources in the area of potential effects (APE) and evaluates the potential effects of the No Build and Build Alternatives on cultural resources. As part of the National Historic Preservation Act Section 106 process, the APE was defined as the proposed Project area and immediately adjacent parcels where direct and indirect effects of the Build Alternative could occur. Cultural resources include archaeological and architectural resources, such as prehistoric camp sites, lithic scatters, tribal cultural resources, and historic buildings or structures. The Section 106 process focuses on historic properties, which are cultural resources that are eligible for or listed in the National Register of Historic Places (36 CFR Part 800.16[l][1]).

Information in this section is based on a records search, archival research, a field survey, consultation, and historic outreach, which are described in more detail in the *Cultural Resources Identification and Eligibility Assessment* (SBCTA 2024f, Appendix I).

3.4.1 Affected Environment

No archaeological or tribal cultural resources have been documented in the proposed Project area (physical disturbance area within the APE), but two historic-period railroad routes and one pre-1981 commercial complex are in the APE. The railroad segments are part of the Atchison Topeka & Santa Fe Railroad (0.25-mile segment) and the Southern Pacific Railroad (3.25-mile segment) and date to the 1800s. The commercial complex is located at 4265 East Guasti Road and dates to 1969. These resources were determined to not be eligible for listing in the National Register of Historic Places and are, therefore, not historic properties for purposes of Section 106 of the National Historic Preservation Act. Archaeological sensitivity (potential for buried resources) is considered higher in portions of the proposed Project area close to previously documented resources and where Holocene-age soils are present that could contain buried cultural resources up to 10 feet below the surface. Based on consultation with Native American tribes, these archaeologically sensitive areas could contain tribal cultural resources.

3.4.2 Environmental Consequences

3.4.2.1 No Build Alternative

The No Build Alternative would not result in any construction or operation-related impacts on cultural resources in the proposed Project area. The No Build Alternative would result in no effect related to cultural resources.

3.4.2.2 Build Alternative

Construction activities associated with the Build Alternative are not expected to disturb or expose intact archaeological resources. However, archaeologically sensitive areas have been identified in the southwestern portion of the APE which passes in close proximity to a number of previously documented cultural resources and in areas of the APE where Holocene-age soils are present that could contain buried cultural resources up to 10 feet below the surface. Based on the depth of tunneling activities up to 70 feet, TBM tunneling activities are unlikely to encounter archaeological resources. However, excavations at shallower depths (cut-and-cover and non-TBM tunneling activities) in Holocene-age soils could expose and disturb buried resources, which could require evaluation and protection measures. As a standard requirement and in the event that archaeological materials are encountered during construction, MM-CUL-1 would be implemented. Human remains are also not anticipated based on the cultural study, and standard practices would be followed if potential remains are encountered (MM-CUL-2). In areas of archaeological sensitivity, limited or focused archaeological monitoring is planned and will include coordination with FTA and Native American tribes as needed (MM-CUL-3).

While each of the three historic-period built environment resources are not historic properties pursuant to Section 106 of the National Historic Preservation Act, similar to other structures in the human environment surrounding the proposed Project area, the three resources would be subject to potential noise, vibration, and visual effects during construction. While aboveground construction activities would occur as close as 150 feet to the three built environment resources, damage to the structures is not expected based on the typical noise and vibration levels generated during construction (SBCTA 2024h, Appendix J). The proposed above-ground elements of the Build Alternative would also not introduce features that would detract from the visual environment around the resources. Pursuant to Section 106, FTA intends to make a finding of no historic properties affected and is consulting with the California State Historic Preservation Officer (see Section 4.3 for consultation information).

3.4.3 Avoidance, Minimization, and Mitigation Measures

FTA and SBCTA or its contractor will be responsible for implementing the following measures, which are discussed in more detail in the CRMTP (see Appendix I of this EA), to avoid and/or minimize adverse effects during construction of the Build Alternative.

MM-CUL-1 Discovery of Archaeological Materials: In the event that archaeological materials are encountered during construction, all construction work shall be halted and a qualified archaeologist consulted to determine the appropriate treatment of the discovery (California Code of Regulations [CCR] Title 14, Chapter 3, Section 15064.5(f)). Section 106 requires FTA to notify SHPO and the consulting parties within 48 hours, and the requirements of 36 CFR 800.13 will be followed.

MM-CUL-2: Discovery of Human Remains: In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. San Bernardino County Transportation Authority will notify the Federal Transit Administration on the same day of the discovery. The Federal Transit Administration will notify the State Office of Historic Preservation, Advisory Council on Historic Preservation, and Native American Tribe(s) within two working days of discovery to provide notification of potential human remains being observed during the implementation of the undertaking. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify most likely descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

MM-CUL-3: Discovery of Tribal Cultural Resources: Areas found during construction to contain significant tribal cultural resources shall be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation. If evidence of potential tribal cultural resources is observed, construction near the resources shall cease, the appropriate Native American tribal groups shall be consulted, and, in coordination with the appropriate Native American tribal groups, a qualified archaeologist or historian shall determine whether the resource uncovered during construction is a tribal cultural resource as defined under Public Resources Code Section 21074. The appropriate Native American tribal groups shall be contacted in the event of any pre-contact and/or historic-era cultural resources discovered during project implementation; and will be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment.

Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to San Bernardino County Transportation Authority and the Federal Transit Administration for dissemination to the appropriate Native American tribal groups. San Bernardino County Transportation Authority and the Federal Transit Administration shall, in good faith, consult with the appropriate Native American tribal groups.

3.5 ECONOMIC AND FISCAL RESOURCES

This section evaluates the employment, earnings, and fiscal effects of the proposed Project and focuses on the net effects generated by new investment in the local economy resulting from implementing the Build Alternative. This section focuses only on the net incremental economic impacts attributable to the proposed Project (i.e., the marginal differences between the future conditions under the No Build Alternative and the future conditions with implementation of the Build Alternative).

There are no federal statutes or regulations related to economic and fiscal effects. The FTA provides general guidance to assist with the NEPA determinations, which may include the potential for the proposed Project to impact economic and fiscal resources by interference with business activities and loss of tax revenue.

The economic impacts associated with construction, operation, and maintenance expenditures of implementing the Build Alternative are measured using regional multipliers from the Bureau of Economic Analysis within the U.S. Department of Commerce. The geographic scope focuses on three levels of impact: San Bernardino County, Riverside-San Bernardino-Ontario metropolitan statistical area (MSA), and the State of California (State).

Information in this section is based on the analysis contained in the *Economic and Fiscal Effects Technical Report* (SBCTA 2024a).

3.5.1 Affected Environment

Between 2016 and 2020, the populations of the City of Rancho Cucamonga and the City of Ontario grew by 12% and 1%, respectively. The City of Ontario's population is forecasted to grow by 22.9% between 2020 and 2035, and a 6.8% increase is forecasted for the City of Rancho Cucamonga. The City of Ontario's household numbers are projected to rise by 25%, while a 9% increase is forecasted for the City of Rancho Cucamonga. Between 2020 and 2035, employment in the City of Ontario and the City of Rancho Cucamonga is forecasted to grow by 11.3% and 5.8%, respectively.

ONT is a key driver of economic activity in Southern California and is an important air cargo hub and ranked as one of the top 10 largest US airports. In 2022, the total economic impact of ONT from economic activity, logistic company operations, and visitors to the airport was projected to total $3.8 billion of economic output (Oxford Economics 2022). ONT is one of the fastest growing commercial airports in the U.S., with 5.6 million annual passengers in 2019, and it is expected to continue to see an increase in passengers. ONT could experience 33 million annual passengers by 2045 (SANBAG 2014). A separate estimate suggested ONT could experience 14 million annual passengers by 2045 (OIAA 2019). Additionally, United Parcel Services Inc. (UPS), Amazon, and Federal Express Corporation (FedEx) have sorting facilities located at the airport, which help sustain regional employment.

The increasing capacity and functions of ONT also drive economic growth and development of the surrounding areas. Air cargo infrastructure and logistics companies have expanded hubs and fulfillment centers at ONT and in the region, with Amazon developing the largest warehouse globally in the City of Ontario (Sohaib 2022). Proposed future development near ONT includes light industrial space, e-commerce, and a container freight station for international cargo clearance. Further growth of the area will continue to increase opportunities for employment and benefit the economic and fiscal conditions in the area.

Currently, direct access for ONT passengers and airport employees is almost exclusively limited to single-occupancy vehicles using local roadways and nearby freeways (I-10 and I-15) and limited bus services. To support the projected future passenger capacity and accessibility as one of the primary logistics hubs in Southern California, mobility options and access to ONT would need to be expanded.

3.5.2 Environmental Consequences

3.5.2.1 No Build Alternative

The No Build Alternative would not result in any economic and fiscal effects as a result of construction activities, and current economic conditions in the county and cities would continue to change based on expenditures associated with other projects and market conditions. The No Build Alternative would not result in a new direct electrically powered, on-demand fixed transit guideway connection from the Cucamonga Metrolink Station to ONT, and no new jobs or economic benefits associated with the proposed Project would be created.

3.5.2.2 Build Alternative

Construction of the Build Alternative would require substantial capital investment in San Bernardino County and the Riverside-San Bernardino-Ontario MSA; however, operation of the new transit service would have long-term recurring benefits with periodic expenditures. Spending during construction will increase the employment, earnings, and output for the duration of the construction process. Capital cost estimates/construction values for the analysis are presented in 2020 United States $, providing a common value for expenditures that are distributed over a number of years.

For San Bernardino County, the effect of construction spending for the Build Alternative would have $722 million in output, $174 million in earnings, and approximately 2,732 person-year jobs. The effect of expenditure for professional services will lead to increases in output of $81 million, earnings of $23 million, and employment of almost 320 person-year jobs, see Table 3.5-1. Once operational the Build Alternative would have long-term benefits for San Bernardino County, as the Build Alternative would generate additional employment of 564 jobs, 543 of which would be due to employment in the Transit and Ground Passenger sector. Additional earnings generated from the Build Alternative would amount to $14 million, of which $12 million would be derived from labor income in the Transit and Ground Passenger sector.

Table 3.5-1: Net Effects of Capital Expenditure upon San Bernardino County

	Net Capital Expenditure (Millions, 2020 $)	Net Impact: Output (Millions, 2020 $)	Net Impact: Earnings (Millions, 2020 $)	Net Impact: Employment
Construction	$402	$722	$174	2,732
Professional Services	$52	$81	$23	319
Total	$454	$803	$198	3,051

Source: Based on AECOM's calculations

For the Riverside-San Bernardino-Ontario MSA, the effect of construction spending would have $784 million in output, over $245 million in earnings, and approximately 3,900 person-year jobs. Professional expenditure impacts would lead to increases in output of approximately $89 million, earnings of $32 million, and employment of approximately 450 person-year jobs, see Table 3.5-2. Once operational, the Build Alternative would generate additional employment of 790 jobs, 760 of which would be due to employment in the Transit and Ground Passenger sector. Additional earnings generated from the Build Alternative will amount to $20 million, which includes $17 million in labor income from the Transit and Ground Passenger sector.

Table 3.5-2: Net Effects of Capital Expenditure upon Riverside-San Bernardino-Ontario MSA

	Net Capital Expenditure (Millions, 2020 $)	Net Impact: Output (Millions, 2020 $)	Net Impact: Earnings (Millions, 2020 $)	Net Impact: Employment
Construction	$402	$784	$245	3,906
Professional Services	$52	$89	$32	452
Total	$454	$873	$277	4,358

Source: Based on AECOM calculations

For the State of California, the effect of construction spending for the Build Alternative would have nearly $270 million in output, nearly $100 million in earnings, and approximately 1,500 new person-year jobs. Professional services expenditure would have $35 million in output, over $10 million in earnings, and nearly 200 person-year jobs, see Table 3.5-3. Operation of the Build Alternative would generate an additional 970 jobs for the State, of which 928 jobs are due to employment in the Transit and Ground Passenger sector. Additional earnings generated from the ongoing operation of the Build Alternative will amount to $29 million, with $24 million from the Transit and Ground Passenger sector.

Table 3.5-3: Net Effects of Capital Expenditure upon the State of California

	Net Capital Expenditure (Millions, 2020 $)	Net Impact: Output (Millions, 2020 $)	Net Impact: Earnings (Millions, 2020 $)	Net Impact: Employment
Construction	$126	$267	$97	1,528
Professional Services	$16	$35	$13	193
Total	$143	$302	$110	1,722

Source: Based on AECOM calculations

Income and sales tax rates were analyzed for potential effects of the Build Alternative. Implementation of the Build Alternative would earn additional income tax revenue of $17 million for San Bernardino County, $21 million for the Riverside-San Bernardino-Ontario MSA, and $11 million for the State of California. The incremental consumption from new earnings would boost sales tax revenues for the County, MSA, and State. The County would earn an additional sales tax revenue of $0.8 million, while the MSA and the State would generate income tax earnings of $1.4 million and $1.9 million, respectively.

The increased transit employment would have positive economic and fiscal effects to the County, the MSA region, and the State, both through the direct hiring to fill transit jobs and indirectly as these transit workers spend their earnings, thus creating additional consumer demand and jobs to meet that demand. Therefore, the Build Alternative would have beneficial effects on the local economy.

3.5.3 Avoidance, Minimization, and Mitigation Measures

Additional employment generated from construction and operation of the Build Alternative would have beneficial effects on the local economy. Therefore, no avoidance, minimization or mitigation measures are required.

3.6 ENVIRONMENTAL JUSTICE AND EQUITY

This section evaluates potential effects of the No Build and Build Alternatives on minority and low-income populations (communities with environmental justice concerns) and if the Build Alternative would have a disproportionately high and adverse effect on these populations. Minority populations are considered ethnically diverse based on their race, color, or national origin. Low-income populations are defined as any individual or household with income at or below the current federal poverty level established by the U.S. Department of Health and Human Services guidelines. The consideration of environmental justice is required under.

EO 12898, EO 14096, Title VI of the Civil Rights Act of 1964, FTA Circular 4703.1, and U.S. DOT Order 5610.2C. EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, was enacted on April 21, 2023. EO 14096 on environmental justice does not rescind EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which has been in effect since February 11, 1994, and is currently implemented through DOT Order 5610.2C. This

implementation will continue until further guidance is provided regarding the implementation of the new EO 14096 on environmental justice.

The resource study area (RSA) for environmental justice comprises the communities surrounding the proposed Project Area and includes the entire census block groups located within 0.5 mile. Information in this section is based on the *Environmental Justice Technical Report* (SBCTA 2024g, Appendix K of this EA), which describes the regulatory setting, methodology used to identify communities with environmental justice concerns, and the surrounding communities in more detail.

In accordance with SBCTA's Public Participation Plan, targeted community outreach efforts were completed in the City of Rancho Cucamonga and the City of Ontario throughout the RSA to ensure participation of Limited English Proficiency (LEP) and communities with environmental justice concerns. Public and agency outreach, including outreach focused on LEP and communities with environmental justice concerns, is further discussed in Chapter 4.0 of this EA.

3.6.1 Affected Environment

The RSA includes census block groups within the cities of Ontario and Rancho Cucamonga. Communities in the RSA are ethnically diverse and predominantly family communities. All of the census block groups in the RSA are considered communities with environmental justice concerns because they have more than 50 percent of the population identifying as minorities. One block group (Census Tract 21.09, Block Group 2, located within the City of Rancho Cucamonga) is considered a low-income population because it has more than 15 percent of the population with low income. All other census block groups have household incomes greater than the county average and are not considered communities with environmental justice concerns with regards to low income. However, because all of the census block groups have a high concentration of minority residents, all populations in the RSA are considered communities with environmental justice concerns.

Community values center on quality of life, health, equity, sense of identity, connectivity and accessibility to goods, services, jobs, affordable housing and amenities needed to have quality of life. The RSA includes census block groups within the cities of Ontario and Rancho Cucamonga. As stated in Section 3.3, “Community and Socioeconomic Resources”, the land use in and around the proposed Project area is mostly urban in character with large-scale industrial, manufacturing, transportation, surface parking, office, commercial, multi-family residential, hotel, and airport-related land uses. Important facilities in the surrounding communities include the San Secondo d’Asti Catholic Church and the Cucamonga Christian Fellowship, which are located with 0.1 mile of the proposed Project area, the Ontario Center School, and various businesses that are assumed to be used and possibly owned by members of communities with environmental justice concerns.

3.6.2 Environmental Consequences

3.6.2.1 No Build Alternative

The No Build Alternative would not result in effects to communities with environmental justice concerns as a result of construction activities. It would not address the transportation deficiencies experienced by persons traveling in the area due to the lack of a new direct connection between the Cucamonga Metrolink Station and ONT. The communities with environmental justice concerns would continue to rely on existing transportation services to access ONT. The No Build Alternative would not have a disproportionate adverse impact to, nor would it benefit communities with environmental justice concerns

3.6.2.2 Build Alternative

The Build Alternative would result in construction impacts that would primarily be localized around the proposed Project area. With the surrounding communities being primarily minority populations with some low-income populations, temporary impacts related to air quality, transportation and access, water quality, noise, and safety would primarily affect communities with environmental justice concerns (see analyses in other sections of this EA). These communities may be more sensitive to the effects because they could disrupt their daily lives and potentially impede access to or use of nearby community facilities and businesses. For example, a traffic detour could create prevent people in a low-income area from accessing their workplace on time. Temporary effects could occur during construction. However, with the implementation of mitigation measures and standard construction practices and compliance with local construction and building codes, effects associated with construction activities would not be adverse. In particular, the use of directional signage and notifications to the public would ensure nearby communities remain accessible and flow of traffic around the construction area is maintained. Although the effects of the Build Alternative would be predominantly borne by the communities with environmental justice concerns due to their proximity to the proposed Project area, the effects would not be adverse, and therefore effects on communities with environmental justice concerns would not be disproportionately high and adverse.

Construction of the Build Alternative could also benefit the communities with environmental justice concerns through employment opportunities and increased revenue at local businesses as construction employees buy goods and services in the communities. The low-income population could especially benefit from the employment opportunities if they can be part of the construction workforce. Although these benefits would be temporary, the longer-term benefits of a new transit service would continue for many years.

Once operational, the Build Alternative would provide a net benefit to communities with environmental justice concerns in the RSA through improved transit service, transit access, and regional mobility. Additional long-term benefits to the communities with environmental justice concerns include

improvements in travel time and travel cost savings by providing a direct connection between a transit hub and a major regional airport, which also serves as an employment center. The low-income population in particular could benefit from improved access to employment opportunities without reliance on single-occupancy vehicles. Additionally, the projected reduction in use of single-occupancy vehicles with the new transit service in operation would result in beneficial effects to local and regional air quality and a reduction in GHG emissions, which could reduce the potential for health concerns related to air quality in the communities with environmental justice concerns. Overall, operation of the Build Alternative would not have a disproportionately high and adverse effect on communities with environmental justice concerns.

3.6.3 Avoidance, Minimization, and Mitigation Measures

Measures identified for other resources, such as air quality, geology, hazards, and water quality, would help minimize potential impacts on communities with environmental justice concerns.

3.7 GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES

This section describes geology, soils, seismicity, and paleontological resources within the proposed Project area and vicinity. Geologic hazards include fault rupture, ground shaking, liquefaction, landslides, and soil erosion. Paleontological resources include any fossilized remains, traces, or imprints of organisms preserved in or on the Earth's crust. Pursuant to NEPA (42 USC Section 4321 et seq.) and Council on Environmental Quality regulations implementing NEPA (40 CFR 1501-1508), FTA-funded projects or actions are required to conduct an environmental analysis to consider the geologic and soil conditions in the vicinity of the proposed Project area, and that these analyses are given due weight in project decision making. The geology and soils RSA is dependent on the specific characteristic evaluated. For geology and soils, the fault rupture RSA includes the region of Southern California, and the soils RSA includes the Cities of Rancho Cucamonga and Ontario. The RSA for paleontological resources includes the horizontal and vertical extent of proposed Project activities within the proposed Project site.

Information in this section is based on the impact analyses contained in the *Geology, Soils, and Seismicity Technical Report* (SBCTA 2024a) and the *Paleontological Resources Technical Report* (SBCTA 2024a).

3.7.1 Affected Environment

The proposed Project area is located on a gently sloping alluvial plain between the Los Angeles Basin and the Mojave Desert in the Peninsular Ranges geomorphic province of California. The entire Southern California region is seismically active, and earthquake activity could cause damage to buildings and infrastructure in and near the proposed Project area. Seismic concerns in the area are associated with the Cucamonga Fault approximately 5 miles to north, the Etiwanda Avenue Fault approximately 4.5 miles to north, the San Andreas Fault runs northwest-southeast approximately 13.5 miles to northeast, and the San Jacinto fault approximately 6.8 miles to northeast. Other geologic hazards, such as from landslides,

settlement, and liquefaction, are not considered concerns in the proposed Project area. Soil erosion from wind and water is also not a concern because of the existing built nature of the area. Underlying soils may not be suitable for certain types of development or buildings, and steep slopes could become unstable and collapse, especially during periods of precipitation.

The underlying geologic units (artificial fill and younger alluvial fan and Eolian deposits) are unlikely to contain fossil resources at shallow depths but have a higher sensitivity below about 5 feet deep. No fossil localities have been documented in the proposed Project area, but several fossil localities have been documented at the surface and to varying depths in similar geologic units nearby. Therefore, there is a potential to encounter scientifically important fossil resources in this area below a depth of 5 feet.

3.7.2 Environmental Consequences

3.7.2.1 No Build Alternative

The No Build Alternative would not result in any construction or operation impacts on geology or soils. No new infrastructure or facilities would be constructed to establish a new transit service in the proposed Project area. Therefore, the No Build Alternative would result in no effects related to geology, soils, seismicity, and paleontological resources.

3.7.2.2 Build Alternative

Construction activities would involve ground-disturbing activities that would expose soils to wind and water erosion, create potentially unstable slopes, and expose or damage fossil resources. With most activities taking place in previously developed areas and based on the soil types in the area, minimal erosion concerns are anticipated. Standard best management practices would help stabilize and protect exposed soils during construction. In addition, a site-specific stormwater urban mitigation plan would be prepared for the Build Alternative and implemented during construction to comply with the San Bernardino County Municipal Separate Storm Sewer System Permit (Order No. R8-2010-0036) (MM-HWQ-1). Some excavation activities may take place in unstable soils, and the risk of slope failure is considered higher for temporary slopes due to generally steeper gradients versus permanent, manufactured slopes. To address the risks of potential slope failure, temporary slopes would be designed to meet the California Division of Occupational Safety and Health requirements for stabilization, which establish acceptable and safe horizontal and vertical dimensions for constructed slopes (California Code of Regulations, Title 8, Section 1541.1) (MM-GEO-2). Therefore, the Build Alternative would result in no adverse effects related to erosion or slope failure.

Shallow excavation activities in previously disturbed areas, such as at the stations, are unlikely to expose or disturb fossil resources. Deeper excavations at the proposed stations and during the cut-and-cover activities associated with the tunnel and vent shaft and the relocation of affected utilities could disturb or damage fossil resources. In addition, use of the tunnel boring machine would likely prevent the discovery of fossil resources, and some may be damaged during tunnel construction. Inadvertent discovery

protocols and fossil recovery measures would help preserve the scientific value of fossils that may be present in these areas (MM-PAL-1 through MM-PAL-4). With implementation of MM-PAL-1 through MM--PAL-4 and given the vertical and horizontal extent of the affected geologic unit where tunneling would occur, the intensity of potential adverse effects on paleontological resources would not be adverse.

Seismically induced ground-shaking could result in risks from loss, injury, or death due to damage to or failure of built structures. Additionally, geologic conditions such as fault fractured zones, soft fractured rock masses, water-bearing structures, water inrush, collapse, boulder falling, surrounding rock deformation, and rockburst can adversely affect the safety and efficiency of TBM tunnel construction. Because a TBM tunnel is generally extremely long and deeply buried, with complex geological conditions, advanced geological prospecting and exploration should be included in the construction process (Mingjiang Deng 2018). As discussed in Section 3.7.3, MM-GEO-3 requires the preparation of a geotechnical investigation to evaluate soils and foundation types. With the proximity of several faults, the design of foundations and structures associated with the Build Alternative must comply with California Building Code Seismic Zone 4 requirements to reduce the potential for seismic-related ground failure damaging the stations and other facilities (MM-GEO-1). In addition, underlying unsuitable and expansive soils could damage structures, utility lines, and paved surfaces. To ensure the proposed infrastructure and stations are designed with consideration of site-specific soil conditions, a geotechnical investigation to evaluate soils and foundation types would be required for the Build Alternative with recommendations for ground preparation and earthwork specific to the proposed Project area to achieve an acceptable level of soil stability (MM-GEO-3). Therefore, the Build Alternative would result in no adverse effects related to seismic-related ground failure or unstable and expansive soils.

3.7.3 Avoidance, Minimization, and Mitigation Measures

SBCTA and/or its contractor will be responsible for implementing the following measures to avoid and/or minimize adverse effects prior to and during construction of the Build Alternative.

MM-GEO-1: Demonstrate Seismic Resistant Design Compliance: San Bernardino County Transportation Authority shall demonstrate to the City of Rancho Cucamonga and the City of Ontario that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design for Zone 4. Compliance would include the following:

- The use of California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities.
- Additional seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel approximately up to 70 feet underground and etc.), based on the site-specific recommendations of a California Certified Engineering Geologist in cooperation with the Project's California-registered geotechnical and structural engineers.

- An engineering analysis that demonstrates satisfactory performance of alluvium or fill where either forms part or all of the support.
- An analysis of soil conditions and appropriate remediation (compaction, removal/replacement, etc.) prior to using any expansive soils for foundation support.

MM-GEO-2: Ensure Stability of Temporary Slopes: Where excavations are made for the construction of the 4.2-mile tunnel approximately up to 70 feet underground, the construction contractor shall either shore excavation walls, with shoring designed to withstand additional loads, or flatten or "lay back" the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation is shored to support the added load.

MM-GEO-3: Prepare Soils and Geotechnical Analysis: A California-licensed Civil Engineer (Geotechnical) shall prepare and submit to the SBCTA a detailed soils and geotechnical analysis. This evaluation may require subsurface exploration.

A registered soil professional shall submit to and have approval by the SBCTA a site-specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance to City of Rancho Cucamonga and City of Ontario Building Codes.

The proposed Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.

MM-PAL-1: Engage a Qualified Paleontological Resources Specialist: Prior to construction (any ground-disturbing activities), the contractor shall designate a qualified Paleontological Resources Specialist for the Project (approved by San Bernardino County Transportation Authority). The Paleontological Resources Specialist will be responsible for developing a detailed Paleontological Resources Impact Mitigation Plan as well as implementing the Paleontological Resources Impact Mitigation Plan, including development and delivery of Worker Environmental Awareness Program training, evaluation and treatment of finds, if any, and preparation of a final paleontological mitigation report, per the Paleontological Resources Impact Mitigation Plan. Paleontological Resources Monitors will be selected by the Paleontological Resources Specialist based on their qualifications, and the scope and nature of their monitoring will be determined and directed by the Paleontological Resources Specialist based on the Paleontological Resources Impact Mitigation Plan. The Paleontological Resources Specialist will document, evaluate, and assess any discoveries, as needed.

MM-PAL-2: Prepare and implement a Paleontological Resources Impact Mitigation Plan. The Paleontological Resources Impact Mitigation Plan would be consistent with the Society of Vertebrate

Paleontology. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, the Society of Vertebrate Paleontology Conditions of Receivership for Paleontological Salvage Collections, and relevant guidance from Chapter 8 of the current California Department of Transportation (Caltrans) Standard Environmental Reference. As such, the Paleontological Resources Impact Mitigation Plan would provide for at least the following:

- Implementation of the Paleontological Resources Impact Mitigation Plan by qualified personnel, including the following positions:
    - Paleontological Resources Specialist – The paleontological resources specialist will be required to meet or exceed Principal Paleontologist qualifications per Chapter 8 of the current Caltrans Standard Environmental Reference.
    - Paleontological Resources Monitors – The Paleontological Resources Monitors would be required to meet or exceed Paleontological Monitor qualifications per Chapter 8 of the current Caltrans Standard Environmental Reference.
- Requirements for paleontological monitoring by qualified Paleontological Resources Monitors of all ground-disturbing activities known to affect, or potentially affect, paleontologically sensitive geologic units. Based on more detailed information on the methods, equipment, and procedures involved in ground disturbance, including the Tunnel Boring Machine, available at the time of preparation, the Paleontological Resources Monitors would provide details of the corresponding levels of paleontological monitoring. The Paleontological Resources Monitors would allow for monitoring frequency in any given location to be increased or decreased as appropriate based on the Paleontological Resources Specialist's professional judgment in consideration of actual site conditions, geologic units encountered, and fossil discoveries made.
- Provisions for the content development and delivery of paleontological resources Worker Environmental Awareness Program training.
- Provisions for in-progress documentation of monitoring (and, if applicable, salvage/recovery operations) via "daily logs" or a similar approved means.
- Provisions for a "stop work, evaluate, and treat appropriately" response in the event of a known or potential paleontological discovery, including finds in highly sensitive geologic units as well as finds, if any, in geologic units identified as less sensitive, or non-sensitive, for paleontological resources.
- Provisions for sampling and recovery of unearthed fossils consistent with Society of Vertebrate Paleontology Standard Procedures and the Society of Vertebrate Paleontology Conditions of Receivership. Recovery procedures would provide for recovery of both macrofossils and microfossils.

- Provisions for acquiring a repository agreement from an approved regional repository for curation, care, and storage of recovered materials, consistent with the Society of Vertebrate Paleontology Conditions of Receivership. If more than one repository institution is designated, separate repository agreements must be provided.
- Provisions for preparation of a final monitoring and mitigation report that meets the requirements of the Caltrans Standard Environmental Reference Chapter 8 provisions for the Paleontological Monitoring Report and Paleontological Stewardship Summary.
- Provisions for the preparation, identification, analysis, and curation of fossil specimens and data recovered, consistent with the Society of Vertebrate Paleontology Conditions of Receivership and any specific requirements of the designated repository institution(s).

MM-PAL-3: Provide Worker Environmental Awareness Program Training for Paleontological Resources. Prior to groundbreaking within the Project, the contractor would provide paleontological resources Worker Environmental Awareness Program training delivered by the Paleontological Resources Specialist. All management and supervisory personnel and construction workers involved with ground-disturbing activities would be required to take this training before beginning work on the Project. Refresher training would also be made available to management and supervisory personnel and workers as needed, based on the judgment of the Paleontological Resources Specialist. At a minimum, paleontological resources Worker Environmental Awareness Program training would include information on:

- The coordination between construction staff and paleontological staff;
- The construction and paleontological staff roles and responsibilities in implementing the Paleontological Resources Impact Mitigation Plan;
- The possibility of encountering fossils during construction;
- The types of fossils that may be seen and how to recognize them; and
- The proper procedures in the event fossils are encountered, including the requirement to halt work in the vicinity of the find and procedures for notifying responsible parties in the event of a find.

Training materials and formats may include, but are not necessarily limited to, in-person training, prerecorded videos, posters, and informational brochures that provide contacts and summarize procedures in the event paleontological resources are encountered. Worker Environmental Awareness Program training contents would be subject to review and approval by San Bernardino County Transportation Authority. Paleontological resources Worker Environmental Awareness Program training may be provided concurrently with cultural resources Worker Environmental Awareness Program training.

Upon completion of any Worker Environmental Awareness Program training, the contractor would require workers to sign a form stating that they attended the training and understand and would comply with the information presented. Verification of paleontological resources Worker Environmental Awareness Program training will be provided to San Bernardino County Transportation Authority by the contractor.

MM-PAL-4: Halt Construction if Paleontological Resources are Found: Requires to halt construction, evaluate, and treat if Paleontological Resources are found. Consistent with the Paleontological Resources Impact Mitigation Plan, if fossil materials are discovered during construction, regardless of the individual making the discovery, all activity within 50 feet of the discovery would halt and the find would be protected from further disturbance. If the discovery is made by someone other than the Paleontological Resources Specialist or Paleontological Resources Monitors, the person who made the discovery would immediately notify construction supervisory personnel, who would in turn notify the Paleontological Resources Specialist. Notification to the paleontological resources specialist would take place promptly (prior to the close of work the same day as the find), and the paleontological resources specialist would evaluate the find and prescribe appropriate treatment as soon as feasible. Work may continue on other portions of the Project while evaluation (and, if needed, treatment) takes place, as long as the find can be adequately protected in the judgment of the paleontological resources specialist.

If the Paleontological Resources Specialist determines that treatment (i.e., recovery and documentation of unearthed fossil[s]) is warranted, such treatment, and any required reporting, would proceed consistent with the Paleontological Resources Impact Mitigation Plan. The contractor would be responsible for ensuring prompt and accurate implementation, subject to verification by San Bernardino County Transportation Authority.

The stop work requirement does not apply to drilling or boring since these operations typically cannot be suspended in mid-course. However, if finds are made during drilling or boring, the same notification and other follow-up requirements would apply. The paleontological resources specialist would coordinate with construction supervisory and drilling/boring staff regarding the handling of recovered fossils.

The requirements of this mitigation measure would be detailed in the Paleontological Resources Impact Mitigation Plan and presented as part of the paleontological resources Worker Environmental Awareness Program training.

3.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes foreseeable hazards and hazardous materials use, storage, and disposal resulting from implementation of the proposed Project. A “hazardous material” is defined as “a substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). Workers and general public health are potentially at risk whenever hazardous materials have been used or where there could be exposure to such materials. Inherent in the

setting and analysis presented in this section are the concept of "hazard" of these materials and the "risk" they pose to human health. Hazardous materials that result in adverse effects are generally considered "toxic". The RSA for hazards and hazardous materials resources encompasses a 0.25-mile buffer zone around the Cucamonga Metrolink Station, ONT, and the 4.2-mile-long footprint for the underground tunnel. This resource topic is evaluated based on applicable federal, state, and local laws and regulations to protect the public and the environment from hazards and hazardous materials. Applicable regulations are included in the Council on Environmental Quality regulations implementing NEPA (40 CFR 1501-1508), Toxic Substances Control Act, Comprehensive Environmental Response, Compensation, and Liability Act, Superfund Amendments and Reauthorization Act, Federal Aviation Regulations Part 77, Resource Conservation and Recovery Act, Pipeline and Hazardous Materials Safety Administration, and Federal Occupational Health and Safety Administration standards.

Information in this section is based on the analysis contained in the *Hazards and Hazardous Materials Technical Report* (SBCTA 2024a).

3.8.1 Affected Environment

The proposed Project area is surrounded by large-scale industrial, manufacturing, transportation, surface parking, office, commercial, multifamily residential, hotel, and airport-related uses. Hazardous material use is typical of the different types of land uses in the vicinity, and hazardous materials and waste may be transported on the roadways. Several hazardous material release sites have been documented within the vicinity of the proposed Project area, but no known sources of contamination are in the proposed Project area. These sites have had various types of hazardous materials or waste, such as diesel fuel, gasoline, jet fuel, and aqueous wastes, but most are no longer active and have been fully cleaned up. There are 15 closed leaking underground storage tank (LUST) cases, one open LUST case (previously discussed), one Cleanup Program Site, and one tiered permit site within the RSA. The Cleanup Program Site was remediated for release of diesel fuel and the case was closed in 1995. The State Water Resources Control Board indicates no releases have been reported at the tiered permit site (EnviroStor 71003340 [Quality Control Plating]) and the case status is listed as no further action required.

One open LUST case, an open State Response case, is located within 0.5 mile of the proposed Project area. This site is currently operated by General Electric and is used as a jet engine test facility. About 6,000 gallons of hazardous waste was disposed of in dry wells, and there was an estimated 600 cubic yards of waste and contaminated soil on the site. Quarterly reports on the status of operation have been submitted to Department of Toxic Substances Control since commencing remediation and concentrations of VOCs in shallow soil at the site have reached acceptable closure levels. The case was transferred to Santa Ana RWQCB on May 6, 2019, to expedite the environmental investigation and cleanup activities. Monitoring activities are ongoing.

No Brownfields sites were identified within or in the vicinity of the RSA. All 16 LUST cases are on the Cortese list. Table 5-2 in Appendix I provides a summary of the identified affected properties, including business addresses, a summary of the status of each property, and proximity of the property to the proposed Project area. Three hazardous liquid pipelines cross through the proposed Project area under or near East Guasti Road and South Milliken Avenue, although the depth of the pipelines is not specifically known. These pipelines carry crude oil.

- Kinder Morgan (Operator Identification [ID] 18092) operates a crude oil pipeline (ID LS-102) as part of the Santa Fe Pacific Partners (SFPP) South system. As of December 14, 2021, the pipeline was reported active and filled. The 1.6-mile pipeline project originates at storage tanks near the intersection of East Airport Drive and South Grove Avenue and travels east and parallel to East Airport Drive to its terminus at ONT, west of Lot 2. An accidental release was reported (Report No. 20180062) from this pipeline due to equipment failure in 2018 at its point of origin.
- Kinder Morgan (Operator ID 18092) operates a crude oil pipeline (ID LS-120/1) as part of the SFPP South system. As of December 14, 2021, the pipeline was indicated to be active and filled. The 18.6-mile pipeline crosses the tunnel alignment south of Inland Empire Boulevard and north of I-10 and is located immediately adjacent to the proposed ONT stations.
- Zenith Energy West Coast Terminals (Operator ID 40192) operates a crude oil pipeline (ID 1821) as part of the West Coast Terminals system. As of June 15, 2021, the pipeline was indicated to be active and filled. The pipeline overlaps with a portion of the proposed tunnel alignment in a south-north direction within Milliken Avenue, where it then turns and travels east along 4th Street to its terminus at Etiwanda Generating Station.

The closest school to the proposed Project area is San Joaquin Valley College, which is a vocational school located 0.4 mile west of Milliken Avenue at 4580 Ontario Mills Parkway in the City of Ontario (San Joaquin Valley College 2023). Additionally, as the proposed Project area includes ONT, it is located within the ONT Airport Land Use Compatibility Plan Airport Influence Area.

3.8.2 Environmental Consequences

3.8.2.1 No Build Alternative

The No Build Alternative would not result in any construction or operation impacts related to hazardous materials. No new infrastructure or facilities would be constructed to establish a new transit service in the proposed Project area. Therefore, the No Build Alternative would result in no effects related to hazards and hazardous materials.

3.8.2.2 Build Alternative

Construction activities would require the use of hazardous materials and wastes, which could be incidentally spilled and result in environmental contamination, and could disturb or expose contaminated soils or ground water. Typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles would use and transport fuel, oil, grease, and other materials, which would be in small quantities. No known contaminated sites would be disturbed, although areas of underground contamination from the various surface uses could be disturbed during tunnel boring machine operations and other ground-disturbing activities. Based on the proposed tunnel alignment, the three known pipelines are not expected to be encountered, but other pipelines and utilities could be in the area and could be encountered during ground-disturbing activities, which could release hazardous materials into the environment if a leak occurs. All hazardous materials used for construction and hazardous waste generated from construction activities would be handled, transported, and disposed in accordance with applicable federal, state, and local regulations to reduce the risk of exposure or contamination during construction. In addition, a risk management plan will be prepared and implemented to address potential contamination concerns during construction (MM-HAZ-1), and all known utilities, including pipelines, would be located and marked before construction begins, with a response plan implemented in the event of a leak (MM-HAZ-2). The Build Alternative would not result in adverse effects related to accidental release of hazardous materials during construction.

Operation of new stations, a tunnel, and the proposed MSF at the proposed Cucamonga Station would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, common household-type cleaning materials, and pesticides/herbicides. None of these substances would be acutely hazardous (they would not pose a threat to human health and the environment when properly managed). Compliance with existing regulations would ensure proper transportation, use, and storage of hazardous materials during operation. Therefore, the Build Alternative would not result in adverse effects related to the use or discharge of unregulated hazardous materials during operation.

3.8.3 Avoidance, Minimization, and Mitigation Measures

SBCTA and or its contractor will be responsible for implementing the following measures to avoid and/or minimize adverse effects prior to and during construction of the Build Alternative.

MM-HAZ-1: Prepare a Risk Management Plan, if Necessary.

In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health, or the environment is encountered during construction in the proposed Project area, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post development and

(2) describes measures to be taken to protect workers and the public from exposure to potential site hazards. Such measures could include a range of options including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., City of Ontario Fire Department, City of Rancho Cucamonga Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.

MM-HAZ-2: Locate and Avoid Underground Pipelines in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs.

San Bernardino County Transportation Authority shall implement the following measures before construction begins to avoid and minimize potential damage to underground pipelines that could have hazardous materials incidents.

- Prior to the start of earthmoving activities in the vicinity of the pipelines, the San Bernardino County Transportation Authority shall coordinate with Kinder Morgan and Zenith Energy to identify and clearly mark the exact locations of the pipelines. All construction personnel shall be informed of the location of the pipelines during safety briefings throughout the period when construction is occurring. The locations of the pipelines shall be clearly identified on construction drawings and posted in the construction superintendent's trailer.

3.9 NOISE AND GROUND-BORNE VIBRATION

This section describes noise and vibration in the proposed Project area and vicinity. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear and noise is defined as loud, unexpected, or annoying sound. As a transit project, the primary source used for the prediction and assessment of effects associated with noise and vibration for the proposed Project was the FTA Noise and Vibration Impact Assessment Manual (2018), which provides prediction methodology and impact assessment guidance. Additionally, CEQ regulation 23 CFR 771 (amended 2024) describes NEPA procedures for abatement of highway traffic noise and construction noise. The RSA for noise and vibration includes the area within 500 feet of construction areas and truck haul routes, 325 feet of underground tunnel sections, and 250 feet of aboveground tunnel stations for the Build Alternative.

Information in this section is based on noise and vibration data, which are described in more detail in the *Noise and Vibration Technical Report* (SBCTA 2024h, Appendix J).

3.9.1 Affected Environment

The existing ambient noise environment in the proposed Project area is typical of a developed area near a major airport, with primary noise sources consisting of traffic, aircraft, and daily activities of the surrounding land uses (commercial, industrial, residential). Estimated noise levels in the proposed Project area average about 70 A-weighted decibels (dBA) equivalent continuous noise level (L_{eq}) during the day and drop down to 60 dBA L_{eq} in the early morning hours. These levels are representative of typical commercial areas, heavy traffic about 300 feet away, or normal speech about 3 feet away and are generally less than noisy urban areas, although periodic higher noise levels occur throughout the day. No specific existing sources of vibrations are in the area, but periodic activities associated with development and construction may create vibrations. Noise-sensitive receptors within 500 feet of the proposed Project area included residential properties, hotels, places of worship, and some businesses with outdoor use areas.

3.9.2 Environmental Consequences

3.9.2.1 No Build Alternative

The No Build Alternative would not result in any construction or operation effects related to noise and vibration. No new infrastructure or facilities would be constructed to establish a new transit service in the proposed Project area. The No Build Alternative would result in no effect related to noise and vibration.

3.9.2.2 Build Alternative

Construction activities would generate varying levels of noise from construction equipment, the tunnel boring machine, haul trucks, and daily activities, which could be noticeable in nearby areas depending on the location of the equipment, the timing and duration of the noise-generating construction activities, and the relative distance to noise-sensitive receptors. Additionally, human response to noise is subjective and can vary greatly from person to person. Below ground activities (tunnel-boring activities) would be approximately 70 feet underground; however audible air-borne noise from tunnel-boring activities is not anticipated. The TBM uses a rotating metal cutter head to dig the tunnel through soil and rock. As the TBM would be underground, the noise generated by the machine is reduced; however, the TBM does generate ground-borne vibrations which can be transmitted through structures. As with above ground noise sources, ground borne vibrations levels are a product of distance (i.e., those receptors closest to the source experience more vibrations than those receptors at a distance). While some ground-borne noise and vibration could be perceptible at the surface, the analysis indicated that the resulting levels would be well below FTA-established impact thresholds for annoyance and potential damage and would likely be imperceptible to people at the surface level. Above ground activities, such as station and vent shaft construction and staging for the tunnel boring machine, would generate temporary and intermittent noise that could be noticeable by sensitive receptors. Noise levels exceeding 90 dBA (generally equivalent to

the noise of a gas lawnmower from 3 feet away (90dBA – 100dBA) or a jet flyover at 1,000 feet (100 dBA-110 dBA) could disrupt daily activities or result in health concerns.

However, based on noise modeling for the Build Alternative, noise levels during construction activities are expected to range from 55.4 dBA (generally equivalent to heavy traffic at 300 feet (60 dBA)) to 71.0 dBA (generally equivalent to a gas lawnmower at 100 feet [70 dBA]), which are considered acceptable, especially during daytime hours. These noise levels would generally blend in with existing noise in the developed areas. Haul trucks using nearby roads may increase noise levels up to 1.8 dBA, which would blend in with existing traffic and would not be considered noticeable (an increase of 3 dBA or greater in a noisy environment would be noticeable). As previously mentioned, because the tunnel boring machine would operate at 70 feet underground, construction activities using this equipment would not produce noise above ground. Daytime construction activities would adhere to the City of Rancho Cucamonga and City of Ontario noise ordinance regulations to minimize the potential for construction noise to disrupt daily activities or cause health concerns at nearby sensitive receptor locations.

Based on the types of construction equipment expected to be used for aboveground activities, ground-borne vibration impacts are not expected. The piece of construction equipment with the highest potential ground-borne vibration level is a vibrator roller (used primarily for soil compaction), and this equipment type would not create human annoyance groundborne vibration levels exceeding the FTA's thresholds of 72 vibration velocity decibels (VdB) at residential structures or 75 VdB at institutional structures. Ground-borne vibration from tunneling activities is also not expected at levels above FTA's thresholds for human annoyance because of the depth of the tunnel boring. No structural damage at nearby buildings is expected based on the anticipated vibration levels and distance to buildings. Some vibrations may be felt on sidewalks at up to approximately 25 feet away from the source on roadways that serve as haul routes when large trucks pass by; however, this potential vibration would be uncommon and similar to the heavy trucks that already use the local haul routes.

Operation of a new transit service would not change noise levels above current levels at nearby noise-sensitive receptor locations because the operational noise would blend in with the existing noise associated with the developed area and airport. Activities inside the tunnel and station buildings would not generate noise outside, and outside activities would primarily relate to routine maintenance activities and vehicles accessing the stations. The ONT Airport Land Use Compatibility Plan (ONT-IAC 2018) addresses airport land use compatibility concerns regarding exposure to aircraft noise with respect to people and property on the ground. A portion of the tunnel and two stations (Terminal 2 Station and Terminal 4 Station) would be located within a designated Noise Impact Zone. The Airport Land Use Compatibility Plan has determined that activities associated with certain land uses may be carried out with minimal interference from aircraft noise. Per the Airport Land Use Compatibility Plan, the proposed Project is a compatible use within the ONT Noise Impact Zones. No groundborne vibrations are expected during operation of the new transit service.

Therefore, construction and operation of the Build Alternative would result in no adverse effect related to noise and vibration.

3.9.3 Avoidance, Minimization, and Mitigation Measures

No adverse effects are anticipated during construction and operations. The Build Alternative would generate minimal construction and operation noise and vibrations, and mitigation measures are not required.

3.10 TRANSPORTATION AND TRAFFIC

This section describes transportation and traffic in the proposed Project area. Transportation and traffic effects are evaluated based on all modes, including the pedestrian and bicycle modes, in local and regional perspectives. Pursuant to NEPA (42 United States Code Section 4321 et seq.) and Council on Environmental Quality regulations implementing NEPA (40 CFR 1501-1508), because the proposed Project is under the oversight of a federal agency (i.e., FTA) and federally funded, compliance with NEPA regulations is required for the proposed Project as a whole. Under NEPA, project operations are compared to the established local standards to identify potential deficiencies under all modes of transportation. This includes determination of potential level of service (LOS) related operational deficiencies compared to the LOS standard set forth in the General Plan goals and policies of the City of Rancho Cucamonga and the City of Ontario. The RSA to analyze traffic effects from construction of the Build Alternative includes 13 intersections along the primary trucking and hauling routes for each proposed construction staging area. The RSA to analyze traffic effects related to operation of the Build Alternative includes the streets and six intersections around the proposed Project area. Information in this section is based on the transportation, traffic, and parking impact analysis contained in the *Transportation Technical Report* (SBCTA 2024a).

3.10.1 Affected Environment

The transportation network serving the proposed Project area consists of local and regional roadways, train and bus systems, bicycles, and pedestrian paths and sidewalks, including the following:

- **Freeways:** Interstate 10 and Interstate 15
- **Major Arterials:** Milliken Avenue, 6th Street, 4th Street, Haven Avenue, and Airport Drive
- **Connected Streets:** East Terminal Way, Archibald Avenue, Rental Car Road, Azusa Court, and 7th Street
- **Passenger Rail:** Metrolink operates between the Cucamonga Station and the East Ontario Station, which is approximately 2 miles from the Project area, but does not provide service to ONT.
- **Bus Service:** Route 380 on Omnitrans' bus system directly connects ONT to the Cucamonga Metrolink Station, and Routes 61, 81, and 82 run through the proposed Project area.

- **Bicycle and Pedestrian Facilities:** Paved sidewalks, walking paths, and bikeways are found along some roads in and near the proposed Project area.
- **Parking Facilities:** Transit passenger parking is available at the Cucamonga Metrolink Station, which has 980 parking stalls, and airport parking is available at ONT, which has 8,208 total stalls across five lots (OIAA 2019). The total peak parking demand at ONT has been observed to be 5,341 concurrently occupied parking stalls, which is roughly 65 percent of total capacity among all lots (OIAA 2019). Additionally, the total peak parking demand at the Cucamonga Metrolink Station has been observed to be 255 concurrently occupied stalls, which is roughly 26 percent of total capacity among both east and west lots.

Daily traffic on local roads and highways in and near the proposed Project area is typical of a developed area, with higher traffic volumes during morning and evening commute hours from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m., respectively. Traffic conditions at intersections near the existing Cucamonga Metrolink Station and ONT vary, depending on the time of day, with most intersections experiencing minimal delays and operating at acceptable levels. Travelers accessing ONT may experience delays at intersections ranging from 26 seconds to more than 100 seconds, with the longer delays at Archibald Avenue and Terminal Way/Airport Drive being considered unacceptable.

3.10.2 Environmental Consequences

3.10.2.1 No Build Alternative

The No Build Alternative would not result in construction-related impacts on traffic conditions or the transportation network in and near the proposed Project area. Without a new transit service to ONT, future traffic conditions on the local roads would be expected to worsen as ONT users continue to rely primarily on vehicles to access the airport. Existing and planned transit services would not provide reliable service between the City of Rancho Cucamonga and ONT, and benefits of a direct service would not be experienced in the community.

3.10.2.2 Build Alternative

Construction of the Build Alternative would result in temporary traffic increases in and around the proposed Project area as workers drive to the work area, materials are transported to staging and work areas, and haul trucks remove materials from the work area. These temporary increases would be periodic throughout the work week, with no effects on days when work is not conducted. Increased delays at nearby intersections may be experienced by drivers during peak hours, with a reduction in level of service possible at Archibald Avenue/Airport Drive, Milliken Avenue/I-10 Westbound Ramps-Ontario Mills Parkway, and Milliken Avenue/4th Street.

Additionally, construction of the Build Alternative may result in temporary lane closures adjacent to or directly on the I-10 on- and off-ramps at Milliken Avenue to allow safe access for construction vehicles

entering and exiting the vent shaft construction site. In such cases, a Transportation Management Plan will be prepared to facilitate the flow of traffic in and around construction zones (MM-TRA-1).

During construction, access for users of transit, roadway, parking, bicycle, and pedestrian facilities within project construction zones at the Rancho Cucamonga Station and ONT would be temporarily affected. Affected facilities within these staging areas would be restricted for public use for each corresponding site's construction period. Project construction at the Cucamonga Station is estimated to last up to 21 months. Project construction at ONT Lot 2 and Lot 4 is estimated to last up to 27 months and 15 months, respectively. Additionally, lane closures may occur adjacent to or directly on the I-10 on- and off-ramps at Milliken Avenue during construction of the vent shaft. Furthermore, the Build Alternative would temporarily increase VMT within the RSA during construction due to construction vehicles traveling to and from the construction staging areas, transporting excavated materials to local landfill sites and temporary re-routing of existing traffic. Implementation of a transportation management plan would facilitate the flow of traffic in and around construction zones and would address construction-related effects to roadway, bicycle, and pedestrian facilities (MM-TRA-1). With implementation of MM--TRA-1, the Build Alternative would not result in an adverse effect to transportation and traffic during construction.

The use of parking lots at the Cucamonga Metrolink Station and ONT Terminals 2 and 4 for construction staging areas would temporarily reduce available parking at these locations. Approximately 170 parking stalls at the Cucamonga Metrolink Station would not be available, leaving 810 parking stalls for transit users to park at the station. This loss constitutes an 18 percent reduction in parking capacity. It has been observed that the peak parking demand at Rancho Cucamonga Station is 255 occupied parking stalls, which is approximately 39 percent of all available parking among both east and west lots. It is not anticipated that either parking lot at Rancho Cucamonga will exceed parking capacity during project construction.

At ONT, approximately 300 stalls (24 percent of available stalls) in Lot 2 General and 300 stalls (21 percent of available stalls) in Lot 4 General would not be available, leaving approximately 934 and 1,130 stalls respectively for airport users. It is anticipated that Lot 2 General and Lot 4 General will exceed maximum capacity by 124 stalls and 171 stalls, respectively, during parking peak hours during project construction. In such cases, vehicles may be redirected to other available parking stalls at Lots 3, 5, and 6 during construction. Other parking available at the Cucamonga Metrolink Station and in Lots 3, 5, and 6 at ONT would continue to be available without affecting access to the station and airport. Given the remaining parking available at the Cucamonga Metrolink Station and the remaining parking in Lots 3, 5, and 6 at ONT, the Build Alternative would not result in an adverse effect to parking during construction.

The proposed transit service to ONT would reduce some traffic on local roadways, particularly near the airport, although a slight increase in traffic may be experienced if transit users drive to the Cucamonga Station to access the service. Traffic delays at nearby intersections would be similar to current conditions

with projected traffic delays in 2031 (when transit service begins) continuing to be unacceptable at the Archibald/Airport Drive intersection and potentially becoming worse by 2051 at that intersection and at East Terminal Way/Airport Drive, which is likely due to general traffic increases in the surrounding area and not specifically linked to the Build Alternative.

During operation, the Build Alternative is expected to attract new transit riders, encouraging a shift from automobile use to public transit, and improved regional connectivity and local transit access. The Build Alternative would be a new service for passengers accessing ONT and it would benefit the community. Further, the Build Alternative would connect to other transit services at Cucamonga Station, thereby increasing demand for other connecting transit services. These transit services could serve as an additional travel option for accessing the ONT Connector at Cucamonga Station without having to drive. Therefore, the Build Alternative would result in a beneficial effect to transportation and traffic during operation.

At ONT, the Build Alternative during operation (in Opening Year [2031] and Design Year [2051]) would result in a permanent loss of 85 parking stalls in Lot 2 General associated with operation of the Build Alternative at the proposed Terminal 2 station, and a permanent loss of 115 parking stalls in Lot 4 General associated with operation of the Build Alternative at the proposed Terminal 4 station, leaving approximately 1,149 and 1,315 stalls respectively. This constitutes a permanent 7 percent loss in parking capacity for Lot 2 General and a permanent 8 percent loss in parking capacity for Lot 4 General. Given the remaining parking available in Lots 3, 5, and 6 at ONT, the Build Alternative during operation would have a minimal effect to parking at ONT under opening year and design year conditions.

The Build Alternative during operation (in Opening Year [2031] and Design Year [2051]) would result in the permanent loss of 180 parking stalls at the west lot of Cucamonga Metrolink Station, leaving 150 parking stalls available at this lot. The peak daily demand at the west lot would be up to 88 parking stalls during a typical weekday and 14 parking stalls during a typical weekend day, which would result in a surplus of 62 on a typical weekday and 136 parking stalls on a typical weekend day. This demand includes one (1) parking stall associated with the Build Alternative. Therefore, the number of available parking stalls for the west lot is sufficient to service the parking demand at this parking lot on a typical weekday and weekend day under opening year and design year conditions.

During operation (in Opening Year [2031] and Design Year [2051]), the Build Alternative would not change the supply of and would not generate demand for parking stalls at the Cucamonga Metrolink Station east lot. Therefore, no parking avoidance, minimization, or mitigation measures are recommended at Cucamonga Metrolink Station during operation of the Build Alternative.

The Build Alternative would provide a connection from Cucamonga Metrolink Station to and from ONT, which would be a transportation improvement for the RSA. Improvements to first/last-mile access encourage mode shift from automobiles to other modes, such as transit and non-motorized travel. Therefore, the Build Alternative would encourage the use of transit for the airport trips, thereby

stimulating a mode shift from automobile to transit. As such, the Build Alternative would reduce the overall regional VMT compared to the No Build Alternative. Therefore, the Build Alternative would have a beneficial effect on transportation and traffic during operation.

3.10.3 Avoidance, Minimization, and Mitigation Measures

SBCTA and or its contractor will be responsible for implementing the following measure to avoid and/or minimize adverse effects prior to and during construction of the Build Alternative.

MM-TRA-1: Ensure Adequate Access to Transit, Roadway, Parking, Bicycle, and Pedestrian Facilities During Construction.

San Bernardino County Transportation Authority and the contractor shall prepare a Transportation Management Plan as needed to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:

- Schedule a majority of construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours, and, where feasible, maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.
- Designated routes for project haul trucks primarily utilize the I10 corridor. These routes shall be consistent with land use and mobility plans and situated to minimize noise, vibration, and other possible impacts.
- Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.
- Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Rancho Cucamonga, the City of Ontario and the San Bernardino County to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures.
- Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.
- Where construction encroaches on sidewalks, walkways and crosswalks, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.
- Coordinate with first responders and emergency service providers to minimize impacts on emergency response.
- Maintain customer and delivery access to all operating businesses near construction work areas.
- The Project contractor shall encourage construction workers to participate in vanpool and carpool opportunities to reduce congestion and VMT on the regional transportation network.

- The Project contractor shall be encouraged to hire local construction workers who would have lower commute distance to the construction site.

3.11 WATER QUALITY, WATER RESOURCES, AND FLOODPLAIN

This section describes hydrology and water quality conditions in the proposed Project area. Water resources include groundwater and surface water. Floodplains include land subject to inundation by floodwaters from any source. EO 11988, Floodplain Management, requires federal activities avoid impacts to floodplains and avoid direct and indirect support of floodplain development to the extent practicable.

The Clean Water Act of 1972 establishes the basic structure for regulating discharges of pollutants into waters of the United States and gives the United States Environmental Protection Agency the authority to implement pollution control programs, such as setting wastewater standards for industries. NEPA requires consideration of potential environmental effects, including Water Quality, Water Resources, and Floodplain effects, in the evaluation of any proposed federal agency action. General NEPA procedures are set forth in the Council on Environmental Quality regulations 42 USC 4332 Section 102. Water resources in the Build Alternative area are governed by Santa Ana Regional Water Quality Control Board. The RSA for water resources is the Santa Ana River Watershed, specifically the Middle Santa Ana Watershed, which covers approximately 2,800 square miles in Southern California.

Information in this section is based on the analysis contained in the *Hydrology and Water Quality Technical Report* (SBCTA 2024a)

3.11.1 Affected Environment

The proposed Project area falls within the Santa Ana River Watershed, specifically the Middle Santa Ana Watershed, and overlies the Upper Santa Ana Valley Groundwater Basin and the Chino Subbasin. No natural surface waters flow through the proposed Project area, although storm drain systems convey surface runoff along roads and through developed areas. Cucamonga Creek flows under ONT through a concrete culvert and is part of the urban storm drain system in the area. Precipitation and urban runoff are the primary sources of flow in the creek. The quality of runoff is typical of a developed area, with various pollutants from vehicle uses, landscape irrigation, waste disposal, and human activities. Groundwater flows in a south-southwest direction from the primary areas of recharge in the northern parts of the Chino Basin and is encountered at depths in excess of 250 feet below ground surface near the proposed Project area. Recently reported groundwater depths to the west and south of the proposed Project area are approximately 260 to 320 feet below ground surface on average.

The southern portion of the proposed Project area may be subject to flooding or inundation in the event of failure of the San Antonio Dam, which is about 8 miles northwest of the Cucamonga Metrolink Station. Portions of the 100-year and 500-year flood zones overlap the proposed Project area near ONT and along South Milliken Avenue. The western portion of ONT is in the potential inundation zone associated with

the dam and could be subject to flooding if the dam fails, which is considered an unlikely event but could happen as a result of a strong earthquake.

3.11.2 Environmental Consequences

3.11.2.1 No Build Alternative

The No Build Alternative would not result in any construction or operation impacts on water resources or quality or as a result of flood hazards. No new infrastructure or facilities would be constructed to establish a new transit service in the proposed Project area. Therefore, the No Build Alternative would result in no effects to water quality, water resources, or floodplains.

3.11.2.2 Build Alternative

3.11.2.2.1 Water Quality and Groundwater

Construction activities would involve ground-disturbing and other activities that could discharge sediment and pollutants into surface runoff, which could enter nearby storm drain systems and the Cucamonga Creek and degrade water quality. Most activities would take place in previously developed areas, with some activities on paved surfaces with no soil disturbance. Activities during precipitation or storm events have a higher potential to discharge pollutants in stormwater runoff. Implementation of a stormwater pollution prevention plan with appropriate best management practices and compliance with the California Construction Stormwater General Permit would reduce the potential for water quality impacts and would control stormwater runoff exiting the work area to ensure compliance with Section 402 of the Clean Water Act. The use of hazardous materials in the work area would be managed in accordance with applicable regulations, and slurry used for the tunnel boring machine operation would be disposed of in a manner that does not allow it to enter the storm drain system or nearby surface waters.

Although groundwater is not expected to be encountered during excavation activities, some water may be encountered in trenches or holes dug as part of the work. These activities would require proper disposal and, if necessary, treatment of water removed from excavated areas in accordance with the State Water Resources Control Board Construction General Permit, as listed in Table 25, Required Approvals and Permits, in Chapter 2. Deeper excavations, such as for the tunnel and soldier piles for the vent shaft, would be below the expected groundwater aquifer, but would cross through it. These structures would not alter groundwater flow conditions.

Most of the proposed surface infrastructure and structures would be in previously developed areas (impervious surfaces), with only the vent shaft in a pervious area of soil. The proposed vent shaft would result in an increase in impervious surface of approximately 0.2 acres (SBCTA 2024a, Appendix D). Impervious surfaces generate stormwater runoff that may contain pollutants such as nutrients, pesticides, oil and grease, metals, and pathogens, can alter drainage patterns through increased runoff rates, and can decrease groundwater recharge. Compliance with the County's, City of Rancho Cucamonga's, and City of Ontario's regulatory processes for ensuring that appropriate stormwater treatment and containment

features are included in the design, and with the applicable stormwater and waste discharge permits, would help minimize pollutants in runoff during operation. Stormwater runoff associated with operation of the Build Alternative would be similar to current conditions, with most of the proposed structure area being below ground and no expected changes to drainage patterns. Groundwater recharge in the local area would also be similar to current conditions based on the existing developed nature of the area. With implementation of MM-HWQ-1, which requires obtaining a construction dewatering permit, and MM-GEO-3, which requires temporary shoring and permanent dewatering, the Build Alternative would not adversely affect groundwater.

3.13.2.2.2 Floodplains

A section of the proposed tunnel near ONT would cross a 100-year floodplain at approximately the intersection of East Airport Drive and East Terminal Way. Construction activities in floodplains have the potential to temporarily cause or contribute to localized increases in flood depths (water surface elevations), peak flow rates, and flow velocities, particularly during storm events, and expose people and structures to flood hazards. No surface structures would be constructed within the floodplain, and the tunnel would be below ground and have no effect on flood potential or hazards on the surface. To ensure the Build Alternative design meets local floodplain requirements and does not increase flood risks, SBCTA will coordinate with City of Ontario Building Department on the design plans (MM-HWQ-2). Therefore, the Build Alternative would not result in adverse effects to 100-year flood hazard areas or floodplains.

3.13.2.2.3 Inundation and Flooding

Construction at ONT could create a risk to workers and the work area in the event of a failure at the San Antonio Dam, which could flood the area. Although dam failure is considered remote, MM-HWQ-3 would require that evacuation procedures be established for work in the proposed Project area and ensure compliance with existing emergency action plans for the area (from United States Army Corps of Engineers, San Bernardino County, and the Natural Hazard Mitigation Plans for the City of Rancho Cucamonga and City of Ontario), as required by the General Plans of each jurisdiction. Therefore, the Build Alternative would result in no adverse effects related to inundation and flooding.

3.11.3 Avoidance, Minimization, and Mitigation Measures

SBCTA and or its contractor will be responsible for implementing the following measures to avoid and/or minimize adverse effects prior to construction of the Build Alternative.

MM-HWQ-1: Temporary Construction Dewatering.

MM-HWQ-1: If temporary construction dewatering on the project site is required, San Bernardino County Transportation Authority shall obtain a dewatering permit prior to the issuance of a grading permit. Ponded water in excavations shall be tested prior to discharge to the storm drain system. If installation of foundation piles has the potential to intercept groundwater and the water would be discharged to the excavation floor, groundwater testing to a minimum depth of 50 feet, or as otherwise determined by the

City of Ontario or City of Rancho Cucamonga, shall be conducted to the satisfaction of the Water Resources Protection Program staff. If contaminated groundwater is determined to be present, treatment and discharge of the contaminated groundwater shall be conducted in compliance with applicable regulatory requirements including the Santa Ana Regional Water Quality Control Board standards.

MM-HWQ-2: Floodplain Plan Approval.

MM-HWQ-2: San Bernardino County Transportation Authority shall submit the Project design plans to the City of Ontario Build Department and the San Bernardino County Building Department to obtain approval that the design, construction, and operation meets all safety standards for the portion of the Project within the Federal Emergency Management Agency designated 100-year floodplain.

MM-HWQ-3: Emergency Operations Plan.

MM-HWQ-3: San Bernardino County Transportation Authority shall prepare an Emergency Operations Plan. The Emergency Operations Plan shall include provisions for an evacuation action plan to respond to a notification of San Antonio Dam failure. The evacuation plan in the Emergency Operations Plan shall include action plans to evacuate all the people within the Project area during a San Antionio dam failure.

3.12 CUMULATIVE AND INDIRECT EFFECTS

This section evaluates the potential cumulative effects of the No Build and Build Alternatives in combination with other projects in the vicinity of the proposed Project area. A cumulative effect is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions (40 CFR Part 1508.1(i)(3)).

This cumulative impacts analysis relies on information provided by regional plans, such as the SCAG 2020 2045 Regional Transportation Plan/Sustainable Communities Strategy, as well as the local transportation and development projects listed in Table 3.12-1 (Related Projects List). The project list compiled for this analysis includes 36 land use and transportation projects in the surrounding area (including the City of Ontario, the City of Rancho Cucamonga, and San Bernardino County) that are currently planned, proposed, in review, approved, under construction, and completed.

3.12.1 No Build Alternative Cumulative Impacts

Under the No Build Alternative, the lack of a direct and reliable transit service to ONT would result in future conditions similar to current conditions, with congested roadways near the airport, vehicle-related emissions contributing to local air quality concerns, and a lack of transit options for people accessing the airport. Although the No Build Alternative would not contribute to any potentially negative construction-related cumulative effects, it would not provide beneficial cumulative effects in the community. The related projects listed in Table 3.12-1 would provide improvements related to transit service, roadways,

and land use in the community. The Brightline West Project would improve transit service by providing an electric passenger rail system, and the West Valley Connector Project would provide improved transit connection to ONT. Other related projects would provide mixed use developments and improve freeways and bridges.

Table 3.12-1: Related Projects List

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
1	West Valley Connector (WVC – Phase 1/Milliken Alignment)	Transportation	Downtown Pomona Metrolink Station to ONT and the Rancho Cucamonga Metrolink Station	Under Construction	Phase I of the project spans 19 miles and will upgrade a portion of existing Route 61 which runs along Holt Boulevard, adding approximately 3.5 miles as center running, dedicated bus-only lanes. There will be 21 stations in Phase 1 that will provide a much-improved transit connection to ONT and help build transit connectivity by linking ONT, two Metrolink lines (San Bernardino and Riverside), and multiple major activity centers along the route including Ontario Mills and Victoria Gardens. Headways will be 10 minutes in the peak commute period and 15 minutes off-peak, providing a high level of service to the community.
2	South Archibald Avenue Grade Separation (at Mission Boulevard)	Transportation	Ontario/Mission Blvd and Archibald Avenue	Planned	Construct grade separation at existing at-grade crossing south of Archibald Avenue and the upper-Los Angeles line. Widen roadway from two to six lanes.
3	Airport Drive	Transportation	Ontario/Airport Drive from Rochester Avenue to Etiwanda Avenue	Planned	Widen Airport Drive from two to four lanes from Rochester Avenue to Etiwanda Avenue.
4	Archibald Avenue	Transportation	Ontario/Archibald Avenue and Inland Empire Boulevard	Planned	Widen Archibald Avenue from four to six lanes between Inland Empire Boulevard and 4th Street.
5	Guasti Road	Transportation	Ontario/Guasti Road and Archibald Avenue	Planned	Widen Guasti Road from two to four lanes between Holt Boulevard and Archibald Avenue.
6	Turner Avenue	Transportation	Ontario/Turner Avenue and Inland Empire Boulevard	Planned	Spot widen Turner Avenue from two to four lanes between Inland Empire Boulevard and 4th Street for the southbound lane only.
7	Holt Boulevard	Transportation	Ontario/Holt Boulevard and South Vineyard Ave	Planned (2025)	Widen Holt Blvd from four to six lanes between Benson Avenue and Vineyard Avenue.
8	Jurupa Street	Transportation	Ontario/Jurupa St and Turner Ave	Planned (2025)	Widen Jurupa Street from two to six lanes between Turner Avenue and Hofer Ranch Road.

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
9	Vineyard Avenue	Transportation	Ontario/Vineyard Ave and I-10	Complete (2019)	Widen Vineyard Avenue from four to six lanes between 4th Street and I-10.
10	Archibald Avenue Bridge	Transportation	Ontario/Archibald Avenue and upper Deer Creek	Planned (2025)	Widen four-lane bridge to six lanes on Archibald Avenue that transverses the upper Deer Creek.
11	Archibald Avenue Spillway	Transportation	Ontario/Archibald Avenue and upper Deer Creek Spillway	Planned (2025)	Widen four-lane bridge to six lanes on Archibald Avenue over the upper Deer Creek Spillway.
12	Mission Boulevard Bridge	Transportation	Ontario/Mission Boulevard and Cucamonga Creek	Planned (2025)	Widen bridge from four to six lanes on Mission Boulevard over Cucamonga Creek.
13	Holt Boulevard Bridge	Transportation	Ontario/Holt Boulevard and Cucamonga Creek	Planned (2025)	Widen bridge from four to six lanes on Holt Boulevard over Cucamonga Creek.
14	North Vineyard Avenue Grade Separation	Transportation	Ontario/Vineyard Avenue and East Airport Drive	Complete (2017)	Grade separated railroad bridge flyover between Holt Boulevard and East Airport Drive near the upper railroad Alhambra Line.
15	Widen Arrow Route	Transportation	Arrow Route/Etiwanda	Planned	Widen roadway from two to four lanes on Arrow Route near the Etiwanda ditch.
16	Meredith International Center	Land Use	Ontario/4th Street and Vineyard Avenue	Complete	Amendment to the original 1981 Specific Plan. Intended to reduce the planned development intensity, providing a mixture of industrial, urban commercial, and urban residential land uses to fit the evolving economic profile of the City on Ontario.
17	Guasti Plaza	Land Use	Ontario/Archibald Avenue and East Airport Drive	Planned	Guasti Plaza would provide residential units within the residential overlay area in Planning Area 2. The project is a creative reuse of the historic structures of the old Guasti winery and surrounding properties in a location near ONT.
18	Piemonte Overlay at Ontario Center	Land Use	Ontario/Haven Avenue and 4th Street	Planned	A premier mixed-use neighborhood in City of Ontario's primary business hub. This site will cater to the changing demographic of the region through quality housing, retail, restaurants, and entertainment. The recent amendment is intended to enhance cohesion, promote urban development, and allow for landscaping to reduce potable water usage.

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
19	Toyota Business Park	Land Use	Ontario/Jurupa Street and Milliken Avenue	Planned	The project includes the construction of a combination of warehouse and distribution uses with potential office building(s). The larger of the two will be Toyota's North American Parts and Logistics Division building, which will receive bulk auto parts from overseas and North American suppliers, sorted via manual and automated materials handling system, and then distributed to smaller, regional warehouse facilities throughout North America, Hawaii, and the South Pacific. Parts will arrive and be shipped via tractor-trailer trucks with no use of on-site rail transit anticipated. A second, smaller warehouse and distribution facility will be built on the site which will be a regional facility to supply retail Toyota dealers throughout the western United States. The warehouse and distribution buildings will also contain related administrative offices.
20	Ontario Together Projects (TCC Grant)	Land Use	Ontario/Euclid Avenue and Mission Boulevard	Planning	The highly competitive Transformative Climate Communities (TCC) Grant was awarded to the City of Ontario in 2018 to support the City of Ontario's plans to create new economic opportunities and improve the health and well-being of residents. The development plan includes modern affordable housing, multimodal transportation, an urban greening program, an expansive rollout of solar energy, a small business incubator and workforce and career training. The TCC funds are intended to support communities committed to reducing greenhouse-gas emissions and improving environmental, economic and health outcomes for their residents.
21	Homecoming at the Resort	Land Use	Rancho Cucamonga/ Cleveland Avenue and 6th Street	Under Construction	Approved development of 867 rental apartments and new home developments on 39.68 acres within the resort located west of Resort Parkway across from the Van Daele and Tempo at the resort.

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
22	Van Daele	Land Use	Rancho Cucamonga/Retreat Place and Essence Drive	Under Construction	Approved mixed-use development consisting of 296 units including bungalows, townhomes, and flats on a property consisting of multiple parcels with a combined area of about 78 acres within the Empire Lakes Specific Plan and Planning Area 1 located north of 4th Street, south of 6th Street, west of Milliken Avenue, and east of Utica/Cleveland Avenues. The specific location of the project site is south of Sixth Street and east of the future alignment of the Vine.
23	Tempo at the Resort	Land Use	Rancho Cucamonga/Resort Parkway and 4th Street	Under Construction	Approved development of an 80-unit detached residential condominium within the resort located south of Sixth Street and east of Resort Parkway neighboring southwest of Van Daele.
24	New Home	Land Use	Rancho Cucamonga/Resort Parkway and 4th Street	Under Construction	Approved proposal of a 135-unit condominium on 5.25 acres within the resort, east of Resort Parkway and north of Fourth Street, neighboring southwest of Tempo at the resort.
25	Empire Lakes Specific Plan	Land Use	Rancho Cucamonga/ Cleveland Avenue and 8th Street	In Review	Proposed amendment to the current Specific Plan to address circulation changes and planning areas for the north portion of the resort.
26	Hyssop Drive Building 2	Land Use	Rancho Cucamonga/Hyssop Drive and 6th Street	Under Construction	Approved 23,380-square-foot commercial building on 1.08-acre lot at 9150 Hyssop Avenue.
27	Bridge Development	Land Use	Rancho Cucamonga/Santa Anita Avenue and 4th Street	Approved Project	Approved redevelopment of an existing project site with two warehouse buildings (buildings 1 and 2) with a combined building area of approximately 2,200,444 square feet located at 12434 – 4th Street, north of 4th Street, and west of Etiwanda Avenue.
28	Jersey And Milliken Warehouse	Land Use	Rancho Cucamonga/Jersey Boulevard and Milliken Avenue	In Review	A request to construct a 159,580-square-foot industrial/warehouse building on a vacant 7.39-acre parcel at the northwestern corner of the intersection of Jersey Boulevard and Milliken Avenue.

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
29	Arrow and Rochester Industrial	Land Use	Rancho Cucamonga/Arrow Route and Rochester Avenue	In Review	A request to construct a 49,745-square-foot warehouse with office space on a vacant 2.43-acre site, within the neo-industrial district, located at the northeastern corner of the intersection of Rochester Avenue and Arrow Route.
30	Haven + Arrow	Land Use	Rancho Cucamonga/Arrow Route and Haven Avenue	In Review	Proposed mixed-use project including 240 residential units with a commercial ground floor at the southwestern corner of the intersection of Haven Avenue and Arrow Route.
31	Haven City Market	Land Use	Rancho Cucamonga/Haven Avenue and Arrow Route	Complete (2019)	Finalized on March 5, 2019, Haven City Market is an 85,000-square-foot food hall, gourmet market, and retail space with a 20,325-square-foot outdoor patio area located at the northeastern corner of the intersection of Haven Avenue and Arrow Route at 8443 Haven Avenue.
32	Utica Office	Land Use	Rancho Cucamonga/Utica Avenue and Aspen Avenue	Approved Project	Approved proposal to construct a new 13,116-square-foot, two-story office building on vacant land on property addressed as 8281 Utica Avenue.
33	33 North	Land Use	Rancho Cucamonga/Haven Avenue and Foothill Boulevard	In Review	A request for a 302-unit mixed-use development that includes 4,600 square feet of retail and 4,050 square feet of live/work retail area located at the southeastern corner of the intersection of Foothill Boulevard and Haven Avenue.
34	Brightline West	Transportation	Along Interstate 15 (I15) between Apple Valley and Rancho Cucamonga.	Proposed (Notice of Intent [NOI] Period)	Brightline West is proposing to construct a privately funded electric passenger rail system primarily within the existing I-15 corridor ROW from Apple Valley to Rancho Cucamonga, where a station would be constructed adjacent or connected to the Rancho Cucamonga Metrolink Station (the Cajon Pass segment). This segment is the second of the 170-mile Brightline West electric passenger rail system between Apple Valley and Las Vegas. A total of 135 miles of this project will be in California along I-15.

No.	Project Name	Project Type	Location (City/Cross Street)	Project Status	Summary
35	I-10 Corridor Project	Transportation	Along I-10 from the Los Angeles/San Bernardino County line to Ford Street in San Bernardino County	Planned	Caltrans is proposing to improve I-10 by constructing freeway lane(s) and other improvements through all or a portion of the 33-mile-long segment of the I-10 from the Los Angeles/San Bernardino County line to Ford Street in San Bernardino County. The project limits, including transition areas, extend from approximately 0.4 miles west of White Avenue in the City of Pomona to Live Oak Canyon Road in the City of Yucaipa. The project is currently expected to be open to traffic in year 2025.
36	I-15 Corridor Project/Express Lanes	Transportation	I-15 between 0.3 mile south of Cantu-Galleano Ranch Road and 1.2 miles north of Duncan Canyon Road	Planned	SBCTA and Caltrans propose to construct Express Lanes, including tolled facilities, in both directions of I-15. Construction of the I-15 Corridor Project is scheduled to begin in 2023 and will address the most congested portion of the I-15 corridor, spanning approximately six miles from the San Bernardino/Riverside County Line to Foothill Boulevard.

Source: SBCTA 2024a

3.12.2 Build Alternative Cumulative Impacts

The analysis of cumulative effects associated with the Build Alternative considers resource topics analyzed in detail in the EA. For topics that were dismissed in Section 3.1, the Build Alternative would not contribute to cumulative effects, so those topics are not analyzed.

3.12.2.1 Air Quality, Greenhouse Gas Emissions, and Energy

During construction, the Build Alternative would generate temporary emissions and fugitive dust, which could contribute to regional pollutant emissions in combination with other construction projects implemented at the same time. Periodic exceedances of the SCAQMD-recommended daily thresholds could occur based on the estimated daily emissions associated with the Build Alternative, which are below but close to the thresholds, although each project in the SCAQMD would be expected to implement measures to reduce emissions and fugitive dust to ensure compliance with the SCAQMD air quality management plan. Temporary cumulative adverse air quality impacts could occur during the construction phase of the Build Alternative.

The Build Alternative would contribute to a cumulative improvement in regional pollutant and GHG emissions with a reduction in vehicle traffic to and near ONT, which would be a community benefit. Other projects that improve traffic flow in the region, such as improved transit services and roadways, may also reduce vehicle-related emissions, although new development projects could contribute to regional emissions as more people move to or commute in the area. Overall, a cumulative net reduction in pollutant and GHG emissions is expected over the long term as more transit services become available and vehicle travel becomes more efficient. A net reduction in GHG emissions would benefit air quality in the region and help the State of California meet goals to reduce the effects of climate change across the state.

The Build Alternative and related projects are required to comply with various federal and State government legislation to improve energy efficiency in buildings, equipment, and appliances. The Build Alternative would require energy usage during construction and operation; however, operation would reduce gasoline consumption by offsetting automobile use with transit service, which would result in a net decrease in annual fuel consumption. Other projects in the area would also require energy use during construction and operations, but with energy efficient development and equipment operations, the Build Alternative, when combined with other foreseeable actions, would contribute to a net long-term reduction in cumulative energy effects.

3.12.2.2 Community and Socioeconomic Effects

During construction, the Build Alternative would cause temporary disruptions to nearby communities from dust and pollutant emissions, temporary construction easements, noise, introduction of visual changes, and general working activities. The Build Alternative, in combination with other development projects implemented at the same time, would cumulatively contribute to these construction

disturbances in nearby communities. Construction of future projects would be required to conform to the requirements of the City of Rancho Cucamonga and the City of Ontario regulations and would be subject to development review. During construction of the Build Alternative, the community may experience increased truck traffic, increased pollutant emissions and dust, and construction activities from public vantagepoints; however, given the limited aboveground features associated with the Build Alternative, the Build Alternative's contribution to temporary cumulative community and socioeconomic effects during construction would not be adverse.

The Build Alternative would contribute to a cumulative improvement in community transit services, would be compatible with existing land uses, and visually blend in with the existing urban environment. Operation of the Build Alternative in combination with other development projects, including the West Valley Connector Project and Ontario Together Projects, would contribute to the creation of a complete neighborhood that would connect with existing residential neighborhoods via a network of pedestrian, bicycle, transit, and vehicle connections. Future development projects would be subject to compliance with existing policies and regulations, design review, and the development guidelines in the City of Rancho Cucamonga's and the City of Ontario's General Plans and Municipal Codes to ensure aesthetically pleasing design and visual compatibility with adjacent uses. Because of these requirements, it is not anticipated that cumulative development would substantially degrade the existing visual character of the area. Additionally, in the long term, the Build Alternative would not result in population growth or require school and public facility service, and therefore, would not cumulatively contribute to substantial population growth or demand for public facilities. Therefore, when combined with other foreseeable actions, the Build Alternative would not contribute to adverse cumulative community or socioeconomic effects during operation.

3.12.2.3 Cultural Resources

No built resources that are eligible for listing in the California Register of Historical Resources or the National Register of Historic Places have been identified in the APE and construction activities associated with the Build Alternative are not expected to disturb or expose intact archaeological resources. The Build Alternative would implement AM-CUL-1 and AM-CUL-2 to minimize construction effects on previously unknown archaeological resources and human remains. However, construction of future development within the cumulative study area has the potential to affect archaeological and built resources and human remains. Because the Build Alternative would not contribute to the loss of archaeological and built resources or human remains within the cumulative study area, construction effects of the Build Alternative, when combined with other foreseeable actions, would not contribute to cumulative cultural resource effects. No adverse cumulative effects would occur.

Operation of the Build Alternative would not include ground disturbance or any other activities that have the potential to affect archaeological and built resources or human remains. Similarly, operation of future development projects within the cumulative study area would not be anticipated to affect archaeological

and built resources or human remains. Therefore, operation of the Build Alternative in combination with future development would not contribute to adverse cumulative effects related to cultural resources.

3.12.2.4 Economic and Fiscal Effects

The Build Alternative, in combination with future development projects, would generate additional employment and earnings for San Bernardino County, Riverside-San Bernardino-Ontario MSA, and State of California during construction and operation. In the short and long-term, the cumulative economic effects of future development projects and the Build Alternative would be a community benefit. Accordingly, when combined with other foreseeable actions, the Build Alternative would not contribute to adverse cumulative economic and fiscal effects.

3.12.2.5 Environmental Justice

The Build Alternative would be located in an area with environmental justice populations. Construction of the Build Alternative, in combination with other development projects located in the same vicinity and developed at the same time, may cumulatively affect environmental justice populations. Construction of cumulative projects may result in temporary noise and air pollution, traffic disruptions, and community effects. However, the Build Alternative would not displace any community services and would not result in adverse effects related to noise, air quality, and transportation. All development projects, including the Build Alternative, would be required to comply with federal, State, and local regulations to reduce effects on environmental justice. The Build Alternative would not contribute to adverse cumulative effects related to environmental justice during construction. Operation of the Build Alternative and other development projects would result in community benefits and provide for improved transit services for environmental justice populations in the area. The Build Alternative, in combination with other development projects, would provide a cumulative a benefit to environmental justice populations residing in the area over the long-term. Accordingly, when combined with other foreseeable actions, the Build Alternative would not contribute to adverse cumulative environmental justice effects.

3.12.2.6 Geology, Soils, Seismicity, and Paleontological Resources

The Build Alternative would not be constructed within a Fault Zone or an area subject to landslides. Because the Build Alternative and cumulative future projects would be developed within a seismically active area, construction of the projects would be subject to appropriate geotechnical and seismic guidelines and recommendations, consistent with the requirements of the City of Rancho Cucamonga, the City of Ontario, and the State of California. During construction, the Build Alternative and other development projects would modify soil and topographic conditions which could result in soil erosion, collapse of unstable geologic units, or damage to paleontological resources. Existing restrictions on development would be applied in the event that geological or soil conditions posed a risk to safety; therefore, it is anticipated that, when combined with other foreseeable actions, construction of the Build Alternative would contribute to cumulative geology, soils, or seismicity effects. However, with

implementation of mitigation measures MM-GEO-1 through MM-GEO-3 and mitigation measures mitigation measures MM-PAL-1 through MM-PAL-4 would not result in an adverse cumulative effect related to geology, soils, and paleontological resources.

Through compliance with geotechnical and seismic guidelines and recommendations, consistent with the requirements of the City of Rancho Cucamonga, the City of Ontario, and the State of California, operation of the Build Alternative and future development projects would not result in cumulative effects related to geology, soils, and paleontological resources. Effects would not be adverse.

3.12.2.7 Hazards and Hazardous Materials

New development in the City of Rancho Cucamonga and the City of Ontario would be subject to hazardous materials regulations codified in CCR Titles 8, 22, and 26. Furthermore, all construction and demolition activities in the City of Rancho Cucamonga and the City of Ontario would be subject to Cal/OSHA, SCAQMD, and California Environmental Protection Agency regulations concerning the release of hazardous materials. The Build Alternative would implement mitigation measures MM-HAZ-1 through MM-HAZ-3 to address effects related to encountering unknown or unidentified soil and/or groundwater contamination during construction, avoidance of underground pipelines during construction and implementation of a response plan if accidental rupture occurs, and to ensure adequate emergency access during construction. When combined with other foreseeable actions, the Build Alternative would contribute to hazards and hazardous materials cumulative effects, but the cumulative effects would not be adverse because the Build Alternative would comply with all state, federal, and local regulations during construction.

Similarly, during operation, cumulative development may result in the release of hazardous materials. It is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of the Build Alternative. Like the Build Alternative, the cumulative projects would be required to comply with existing regulations and implementation of measures previously discussed to minimize the potential risk of contamination. Through compliance with existing regulations regarding hazardous materials, operation of the Build Alternative would not contribute to an adverse cumulative hazardous materials effect.

3.12.2.8 Hydrology and Water Quality

During construction, the Build Alternative may result in the discharge of sediment and pollutants into surface runoff, which could contribute to the degradation of water quality in combination with other construction projects implemented at the same time. Implementation of a stormwater pollution prevention plan with appropriate best management practices and compliance with the California Construction Stormwater General Permit would reduce the potential for water quality impacts and control stormwater runoff. Future cumulative development projects would also be required to comply with the California Construction Stormwater General Permit to protect water quality. While the Build

Alternative and future development projects may be constructed within flood hazard areas, projects would be required to comply with federal, State, and local regulations as they relate to flooding to ensure protection against potential flood hazards. Therefore, construction of the Build Alternative would not result in an adverse cumulative effect on hydrology and water quality.

Compliance with the county and city regulatory processes for ensuring that appropriate best management practices are included in project design and complying with the applicable federal Clean Water Act National Pollutant Discharge Elimination System program and State National Pollutant Discharge Elimination System requirements under Porter-Cologne Water Quality Control Act would help minimize pollutants in runoff during operation of the Build Alternative and all future development projects.

When combined with other foreseeable actions, the Build Alternative would contribute to water quality, water resources, and floodplain effects, but the cumulative effect would not be adverse because the Build Alternative would implement mitigation measures MM-HWQ-1 through MM-HWQ-3, which would address effects associated with temporary construction dewatering; approval to develop within a FEMA-designated 100-year floodplain; and address the effects associated with dam inundation through preparation of an Emergency Operations Plan.

3.12.2.9 Noise and Vibration

During construction, the Build Alternative would generate noise and vibration, which could contribute to cumulative noise and vibration effects in combination with other construction projects implemented at the same time. Under the FTA noise and vibration impact criteria, the Build Alternative would not increase noise or vibration levels in exceedance of the FTA impact threshold at noise-sensitive receptor locations. Cumulative off-site vibration impacts would occur primarily as a result of construction equipment and haul trucks on local roadways due to the Build Alternative and future development within the area; however, the Build Alternative is not expected to substantially increase off-site vibration levels. Future development projects, along with the Build Alternative, would be subject to San Bernardino County, City of Rancho Cucamonga, and City of Ontario regulations to reduce noise and vibration effects during construction. Compliance with existing regulations would ensure cumulative construction noise and vibration effects are not adverse.

Operation of the Build Alternative, in combination with other development projects, would not be expected to substantially increase noise levels above current levels at nearby noise-sensitive receptor locations because the operational noise would blend in with the existing noise associated with the developed area and would not substantially contribute to a cumulative operational noise effect. Depending on the nature of other development projects, operation of future development in combination with the Build Alternative may result in traffic-related vibration impacts. However, the Build Alternative would not substantially increase off-site vibration levels. Therefore, when combined with other

foreseeable actions, the Build Alternative would not result in adverse cumulative noise and vibration effects.

3.12.2.10 Transportation and Traffic

Construction of the Build Alternative would require truck trips and temporary lane closures which may contribute to cumulative traffic effects at study area roadways and intersections in combination with other development projects. MM-TRA-1 would be implemented during construction of the Build Alternative to minimize traffic effects. Therefore, when combined with other foreseeable actions that may have overlapping construction periods, the Build Alternative would contribute to cumulative traffic effects during construction, but the cumulative effect would not be adverse.

There are local and regional plans for transit and highway improvement projects within 1 mile of the proposed Project area that have the potential to have cumulatively considerable impacts, such as the WVC (Phase 1/Milliken Alignment), Brightline West, I-10 Corridor Project, and I-15 Corridor Project/ Express Lanes project. However, these projects would enhance transit access and the movement of goods and services in communities that are currently underserved, and with the addition of the Build Alternative, would expand the regional transportation network in the City of Rancho Cucamonga and the City of Ontario. Therefore, when combined with other foreseeable actions, the Build Alternative would not contribute to an adverse operational cumulative effect on transportation and traffic.

4 PUBLIC AND AGENCY COORDINATION

4.1 PUBLIC AND AGENCY COORDINATION

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps agencies identify concerns related to the project and environmental resources and regulatory requirements that may apply to a project. Agency and Native American consultation and public participation for this proposed Project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and focused meetings. This chapter summarizes the public and agency coordination in support of the proposed Project. Correspondence referred to in this section is contained in Appendix C.

4.2 PUBLIC SCOPING

SBCTA held a virtual public scoping meeting, which satisfied CEQA (*CEQA Guidelines* Section 15083), on Wednesday, July 20, 2022, from 6:00 p.m. to 7:00 p.m. via Zoom. The meeting provided agencies and the public an opportunity to receive proposed Project updates and to submit formal oral comments. The proposed Project team created a PowerPoint presentation for the public meeting, identifying speakers and team members available to answer questions from participants. The virtual public scoping meeting included simultaneous translation into Spanish as well as a court reporter who people could visit in a separate virtual room to provide formal comments.

A total of 126 people (including proposed Project staff and the public) attended the virtual public scoping meeting, and some provided comments. SBCTA received 40 comments during the public scoping period. Comments received included comments requesting general information about the proposed Project and concerns related to the alignment, funding, traffic, operations, air quality, safety and security, construction impacts, water quality, land use, noise and vibration, outreach, and utilities. Comments received during the scoping process were reviewed and used to determine the issues to be addressed in the CEQA and NEPA documents. Key stakeholders that submitted comments included: ONT, Tribal Historic Preservation Office Agua Caliente Band of Cahuilla Indians, Quechan Indian Tribe Historic Preservation Officer, South Bay Transit Group, AIT TrakMotive, A&R Tarpaulins, Inc., RGI Utility Consultants, and Center for Community Action and Environmental Justice.

4.3 AGENCY AND TRIBAL CONSULTATION AND COORDINATION

FTA and SBCTA have coordinated with regulatory agencies during the environmental process to obtain information on resource concerns and requirements for the proposed Project. This information was used to develop the EA and conduct consultations under applicable laws, such as Section 106 of the National Historic Preservation Act. Consultation under Section 7 of the Endangered Species Act and coordination related to Section 4(f) of the Department of Transportation Act were determined not to be needed based on the analyses of resources covered under those laws.

As the proposed Project will require federal funding, FTA will serve as the federal lead agency for the Project. In compliance with Section 106, FTA initiated consultation with the California State Historic Preservation Officer in June 2024 and continues to consult on the effects of the proposed Project on historic properties. On July 23, 2024, the California State Historic Preservation Officer indicated the APE appeared appropriately delineated. A Sacred Lands File (SLF) search and Section 106 tribal consultation list were requested from the NAHC on May 24, 2022. Results of the SLF search were obtained on June 27, 2022. The NAHC did not identify any known Native American cultural resources within the immediate proposed Project area.

FTA also notified potential interested parties and Native American tribes about the proposed Project and Section 106 process and requested input on their desire to be consulting parties. Letters were sent in May 2024 to the following parties, as well as 18 tribes:

- Ontario Heritage;
- Etiwanda Historical Society;
- Casa de Rancho Cucamonga Historical Society;
- Historical Preservation Association of Rancho Cucamonga;
- Cooper Regional History Museum;
- San Bernardino History and Railroad Museum;
- Southern Pacific Historical & Technical Society; and

- Southern Pacific Railroad History Center.

Follow-up email correspondence was sent to interested parties and tribes in June 2024. No responses have been received from interested parties to date, although FTA will ensure any input is considered during its decision-making process. FTA received responses from the Agua Caliente Band of Cahuilla Indians that the Project area is not located within the Tribe's Traditional Use Area. The Gabrielino Tongva Indians of California Tribal Council indicated that they had no comment. FTA received requests for consultation from the San Manuel Band of Mission Indians and the Gabrieleno Band of Mission Indians - Kizh Nation. FTA met with San Manuel Band of Mission Indians and Gabrieleno Band of Mission Indians – Kizh Nation on September 6, 2024 and October 1, 2024, respectively. Copies of these letters and/or responses are included in Appendix F.

4.4 EA PUBLIC CIRCULATION

This EA is being circulated to the public for 4646 days, and a public hearing will be held. Concurrently, SBCTA has released the Draft EIR for a 46-day public review. If comments are received on the EA during the public availability period and/or at the public hearing, FTA will consider the comments in its decision document and provide responses to substantive comments. After all comments have been addressed, FTA, in cooperation with SBCTA, will select a Preferred Alternative and make the final determination of the proposed Project's effect on the environment.