

West Santa Ana Branch Transit Corridor

Draft EIS/EIR Appendix FF
Final Environmental Justice Impact Analysis Report



Metro®

WEST SANTA ANA BRANCH TRANSIT CORRIDOR PROJECT

Draft EIS/EIR Appendix FF Final Environmental Justice Impact Analysis Report

Prepared for:



Metro[®]

Los Angeles County
Metropolitan Transportation Authority

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AA	Alternatives Analysis
ACM	Asbestos Containing Materials
ACS	American Community Survey
ADA	Americans with Disabilities Act
BRT	Bus Rapid Transit
Caltrans	California Department of Transportation
CART	Cudahy Area Rapid Transit
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CHSRA	California High-Speed Rail Authority
CO	Carbon Monoxide
COW	Cerritos on Wheels
CPA	Community Plan Area
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EJ	Environmental Justice
FTA	Federal Transit Administration
GATE	Get Around Town Express
GCCOG	Gateway Cities Council Governments
GHG	Greenhouse Gas Emission
HP Express	Huntington Park Express
I-	Interstate
LADWP	Los Angeles Department of Water and Power
LAUS	Los Angeles Union Station
LBP	Lead-Based Paints
LBT	Long Beach Transit
LOS	Level of Service
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
LRV	Light Rail Vehicles

Acronym	Definition
Metro	Los Angeles County Metropolitan Transportation Authority
MOS	Minimum Operable Segment
MRDC	Metro Rail Design Criteria
MSF	Maintenance and Storage Facility
MUTCD	Manual on Uniform Traffic Control Devices
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NTS	Norwalk Transit System
OCTA	Orange County Transportation Authority
OSHA	Occupational Safety and Health Administration
PEROW	Pacific Electric Right-of-Way
PM	Particulate Matter
ROD	Record of Decision
ROW	Right-of-Way
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SWPPP	Stormwater Pollution Prevention Plan
TCE	Temporary Construction Easement
TOD	Transit-Oriented Development
TRS	Technical Refinement Study
UPRR	Union Pacific Railroad
USACOE	United States Army Corps of Engineers
USDOT	U.S. Department of Transportation
VMT	Vehicle Miles Traveled
WSAB	West Santa Ana Branch

1 INTRODUCTION

1.1 Study Background

The West Santa Ana Branch (WSAB) Transit Corridor (Project) is a proposed light rail transit (LRT) line that would extend from four possible northern termini in southeast Los Angeles (LA) County to a southern terminus in the City of Artesia, traversing densely populated, low-income, and heavily transit-dependent communities. The Project would provide reliable fixed guideway transit service that would increase mobility and connectivity for historically underserved, transit-dependent, and environmental justice communities; reduce travel times on local and regional transportation networks; and accommodate substantial future employment and population growth.

1.2 Alternatives Evaluation, Screening and Selection Process

A wide range of potential alternatives have been considered and screened through the alternatives analysis processes. In March 2010, the Southern California Association of Governments (SCAG) initiated the Pacific Electric Right-of-Way (PEROW)/WSAB Alternatives Analysis (AA) Study (SCAG 2013) in coordination with the relevant cities, Orangeline Development Authority (now known as Eco-Rapid Transit), the Gateway Cities Council of Governments, the Los Angeles County Metropolitan Transportation Authority (Metro), the Orange County Transportation Authority, and the owners of the right-of-way (ROW)—Union Pacific Railroad (UPRR), BNSF Railway, and the Ports of Los Angeles and Long Beach. The AA Study evaluated a wide variety of transit connections and modes for a broader 34-mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana in Orange County. In February 2013, SCAG completed the PEROW/WSAB Corridor Alternatives Analysis Report¹ and recommended two LRT alternatives for further study: West Bank 3 and the East Bank.

Following completion of the AA, Metro completed the WSAB Technical Refinement Study in 2015 focusing on the design and feasibility of five key issue areas along the 19-mile portion of the WSAB Transit Corridor within LA County:

- Access to Union Station in downtown Los Angeles
- Northern Section Options
- Huntington Park Alignment and Stations
- New Metro C (Green) Line Station
- Southern Terminus at Pioneer Station in Artesia

In September 2016, Metro initiated the WSAB Transit Corridor Environmental Study with the goal of obtaining environmental clearance of the Project under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

¹ Initial concepts evaluated in the SCAG report included transit connections and modes for the 34 mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana. Modes included low speed magnetic levitation (maglev) heavy rail, light rail, and bus rapid transit (BRT).

Metro issued a Notice of Preparation (NOP) on May 25, 2017, with a revised NOP issued on June 14, 2017, extending the comment period. In June 2017, Metro held public scoping meetings in the Cities of Bellflower, Los Angeles, South Gate, and Huntington Park. Metro provided Project updates and information to stakeholders with the intent to receive comments and questions through a comment period that ended in August 2017. A total of 1,122 comments were received during the public scoping period from May through August 2017. The comments focused on concerns regarding the Northern Alignment options, with specific concerns related to potential impacts to Alameda Street with an aerial alignment. Given potential visual and construction issues raised through public scoping, additional Northern Alignment concepts were evaluated.

In February 2018, the Metro Board of Directors approved further study of the alignment in the Northern Section due to community input during the 2017 scoping meetings. A second alternatives screening process was initiated to evaluate the original four Northern Alignment options and four new Northern Alignment concepts. The *Final Northern Alignment Alternatives and Concepts Updated Screening Report* was completed in May 2018 (Metro 2018a). The alternatives were further refined and, based on the findings of the second screening analysis and the input gathered from the public outreach meetings, the Metro Board of Directors approved Build Alternatives E and G for further evaluation (now referred to as Alternatives 1 and 2, respectively, in this report).

On July 11, 2018, Metro issued a revised and recirculated CEQA Notice of Preparation, thereby initiating a scoping comment period. The purpose of the revised Notice of Preparation was to inform the public of the Metro Board's decision to carry forward Alternatives 1 and 2 into the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). During the scoping period, one agency and three public scoping meetings were held in the Cities of Los Angeles, Cudahy, and Bellflower. The meetings provided Project updates and information to stakeholders with the intent to receive comments and questions to support the environmental process. The comment period for scoping ended on August 24, 2018; over 250 comments were received.

Following the July 2018 scoping period, a number of Project refinements were made to address comments received, including additional grade separations, removing certain stations with low ridership, and removing the Bloomfield extension option. The Metro Board adopted these refinements to the project description at their November 2018 meeting.

1.3 Report Purpose and Structure

This Impact Analysis Report examines the environmental effects of the Project as it relates to environmental justice (EJ). The report is organized into nine sections:

- Section 1 – Introduction
- Section 2 – Project Description
- Section 3 – Regulatory Framework
- Section 4 – Affected Environment / Existing Conditions
- Section 5 – Environmental Consequences / Environmental Impacts
- Section 6 – California Environmental Quality Act Determination
- Section 7 – Construction Impacts
- Section 8 – Project Measures and Mitigation Measures
- Section 9 – References

1.4 General Topic Background

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to achieve environmental justice by “identifying and addressing the social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United States”. As a response to Executive Order 12898, the U.S. Department of Transportation (USDOT) issued an Order to Address Environmental Justice in Minority Populations and Low-Income Populations. This order sets guidelines to ensure that federally-funded transportation-related programs, policies, or activities that have the potential to adversely affect human health or the environment involve a planning and programming process that considers the effects on minority populations and low-income populations. This report sets to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on EJ populations.

For purposes of this impact analysis report, the following analysis uses the Federal Transit Administration (FTA) Circular FTA C4703.1 as guidance to incorporate EJ principles into the Project.

1.5 Methodology

1.5.1 Affected Communities

The Project corridor includes the approximately 19-mile alignment through or adjacent to portions of the following jurisdictions: cities of Los Angeles (including the Central City North, Central City, and Southeast Los Angeles communities), Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos, as well as unincorporated Florence-Firestone community of LA County. As further discussed below, the demographics and socioeconomic data presented in this impact analysis report can be understood as accurate descriptions of the demographic and socioeconomic characteristics estimated and projected for the affected jurisdictions using data from the U.S. Census Bureau and Southern California Association of Governments (SCAG) *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*. Data were aggregated from the block group and/or Transportation Analysis Zone (TAZ) levels.

For purposes of this analysis, the EJ Affected Area is defined as the Census block groups that are located within or intersect the area within 0.25 mile of the alignments, parking facilities, and MSF site options, and within 0.5 mile of the proposed stations. The EJ Affected Area includes the approximately 19-mile alignment that crosses through or is adjacent to portions of the following jurisdictions: Cities of Los Angeles (including the Central City North, Central City, and Southeast Los Angeles communities), Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos, as well as the unincorporated Florence-Firestone community of LA County.

The “affected area” analyzed for each environmental topic varies depending on the environmental topic of concern. The “Summary of Effect” for each environmental topic in Section 5 is based on analysis conducted within that “affected area” of analysis and are discussed in the Methodology section of the impact analysis report for each environmental topic of concern. The effects of Project operations and construction, benefits to EJ communities, health effects, and other potential effects are generally discussed for and focused on the Affected Area. This analysis will determine if the Project construction or

operation would result in disproportionately high and adverse effects to the EJ communities identified in and along the EJ Affected Area.

1.5.2 Data Gathering

Demographic and socioeconomic characteristics used to determine potential effects to EJ populations described herein are based on the *West Santa Ana Branch Transit Corridor Project Final Communities and Neighborhoods Impact Analysis Report* (Metro 2021).

The Base Year 2017 is determined by the year the Notice of Intent (NOI) was publicly published in the *Federal Register* and the Notice of Preparation (NOP) was published informing the public of the intent to prepare a combined Draft EIS/EIR for the Project and notifying interested agencies and parties of public scoping meetings. The NOI and NOP were published in 2017. The Build-out Year 2042 is determined when the Project would be completed. At the time of the public notice publication, the most current community-related data available was the U.S. Census Bureau's block group-level 2011-2015 American Community Survey (ACS) 5-Year Estimates released in 2016. The latest 2015-2019 ACS 5-Year Estimates were released in December 2020. A comparison of the two datasets was conducted and determined that the latest ACS socioeconomic dataset would not change the identification of environmental justice populations and would not change the results of the analysis.

Base Year 2017 and Build-out Year 2042 residential population in the Affected Area are derived from TAZ-level estimates from the SCAG 2016-2040 *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) (SCAG 2016a). These datasets obtained for purposes of this analysis include information about average household size, race, ethnicity, median household income, and low-income.

Demographic and socioeconomic characteristics presented in this impact analysis report were derived from TAZ-level estimates from the SCAG 2016-2040 RTP/SCS. Since the data were aggregated to the TAZ and/or block group levels, data from the aforementioned datasets are not available at a geographical resolution sufficient to accurately describe areas strictly within the boundaries of the Affected Area. However, the demographic and socioeconomic data presented in this impact analysis report can be understood as accurate descriptions of the demographic and socioeconomic characteristics estimated and projected for the block groups and TAZs that encompass the EJ Affected Area. The characterization of the communities within the EJ Affected Area is also based on a review of local general plans, land use and zoning maps, and a desktop aerial survey of each community.

1.5.3 Defining Environmental Justice Communities

The description of minority populations and/or low-income populations is drawn from the demographic and socioeconomic data from the U.S. Census Bureau's block group-level 2011-2015 ACS 5-Year Estimates and TAZ-level estimates from the SCAG 2016-2040 RTP/SCS with base year 2017 and build-out year 2042.

The FTA Circular 4703.1 and guidance from the Council on Environmental Quality (CEQ) were used to determine whether the EJ Affected Area consist of EJ communities and populations. . The CEQ's *Environmental Justice: Guidance under the National Environmental Policy Act* (CEQ 1997) states, "Minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the population percentage of the affected area is meaningfully greater than the minority population percentage in the

general population or other appropriate unit of geographic analysis." For this analysis, the units of geographic analysis was the EJ Affected Area and the comparison geographic unit is LA County. LA County is used as the geographical area because each of the jurisdictions are located in LA county and would not artificially dilute or inflate the minority or low-income population identified for this study.

Based on the CEQ *Environmental Justice Guidance under the National Environmental Policy Act*, a community is considered an EJ community if any of the following criteria is met:

- At least 50 percent of the population in the affected community is minority or low-income; or
- The minority or low-income population in the affected community is meaningfully greater than the general population in the appropriate geographic unit of analysis. For this study, 10 percent is considered statistically meaningful greater than the population in LA County (based on similar Metro studies and methodologies used throughout the Metro service areas). A median household income 80 percent of LA County (\$45,000) is used as the low-income threshold. LA County was selected as the unit of geographic analysis because each of the jurisdictions are located in LA county and would not artificially dilute or inflate the minority or low-income population identified for this study.

1.5.3.1 Definition of Minority Populations

USDOT Order 5610.2C and subsequent agency guidance on EJ provides clear definitions of minority groups addressed by Executive Order 12898. USDOT defines minority groups as:

- **Black** refers to people having origins in any of the black racial groups of Africa;
- **Hispanic** includes persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- **Asian American** refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (including for example Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, Philippine Islands, Thailand, and Vietnam);
- **American Indian and Alaskan Native** refers to people having origins in any of the original people of North and South America (including Central America), and who maintain cultural identification through tribal affiliation or community attachment;
- **Native Hawaiian or Other Pacific Islander** refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

A “minority population” means any readily identifiable group or groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy or activity.

1.5.3.2 Definition of Low-Income Populations

USDOT Order 5610.2C and subsequent agency guidance on EJ defines “low-income” as a person whose median household income at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines.² However, FTA Circular 4703.1 also states that a locally developed threshold, such as that used for FTA’s grant program or a percentage of median income for the area, provided that the threshold is at least as inclusive as the HHS poverty guidelines. For this study, the U.S. Department of Housing and Urban Development (HUD) threshold of income limits is used to define “low-income”. Per HUD, low-income is a person whose median household income is 80 percent for the area. LA County is used as the geographical area because each of the jurisdictions are located in LA county and would not artificially dilute or inflate the minority or low-income population identified for this study. The 2015 median household income for LA County (\$56,196) is used because it is the closest available data to the base year of 2017. A median household income 80 percent of LA County (approximately \$45,000) is used as the low-income threshold.

A “low-income population” means any readily identifiable group or groups of low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy or activity.

1.5.4 Defining Environmental Justice Effects

The EJ analysis starts with a determination as to whether minority populations and/or low-income populations would experience potential environmental or health impacts from an alternative. The analysis compares the burdens and benefits of the proposed activity experienced by EJ populations with those experienced by non-EJ populations. This analysis examines if an alternative would result in disproportionately high and adverse effects to the EJ population identified within the EJ Affected Area.

USDOT Order 5610.2C defines “disproportionately high and adverse effect on human health or the environment” as those impacts that are:

- Predominately borne by a minority population and/or a low-income population; or
- Suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Consistent with the USDOT Order 5610.2C and the FTA Circular 4703.1, when determining whether environmental effects of the Project on EJ populations are disproportionately high and adverse, the following were considered to the extent practicable:

- Will the project result in “adverse effects?”
- Will the project result in adverse effects predominately borne by an EJ population?
- Will the project result in adverse effects that would be suffered by the EJ population that would be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by the non-EJ population?
- Does the project propose mitigation and/or enhancement measures?

² Public Law 112-141 defines “low-income individual” to mean “an individual whose family income is at or below 150 percent of the poverty line, as that term is defined in section 673(2) of the Community Services Block Grant Act (42 U.S.C. 9902(2)), including any revision required by that section, for a family of the size involved”.

- Are there project benefits (off-setting benefits) that would accrue to the EJ population as compared to non-EJ populations?
- Does the project affect a resource that is especially important to an EJ population? For example, does the project affect a resource that serves an especially important social, religious, or cultural function for an EJ population?

The benefits and burdens to EJ populations (particularly areas with the highest concentration of EJ populations) are examined against comparable non-EJ populations. Comparable non-EJ populations within the EJ Affected Area include those areas with a higher percentage of non-minority or a lower percent of low-income populations.

CEQA has no requirements to specifically address socioeconomic factors and, as a result, there are no CEQA EJ analysis requirements and a CEQA determination is not included in this section. The issue of EJ, as it is defined in California law, is not required to be a separate component of analysis in an EIR. In particular, questions of social and economic effects have a circumscribed role within CEQA. *CEQA Guidelines* Section 15131 allows the approving agency to include or present economic or social information in an EIR, but *CEQA Guidelines* Section 15131(a) limits the consideration of such factors in the assessment of significant impacts, stating:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

Issues that are pertinent to the question of EJ that are addressed under CEQA are considered in the Draft EIR, including discussions in the air quality, noise, hydrology and water quality, hazards and hazardous materials, population and housing, transportation, and Other CEQA Considerations technical sections.

2 PROJECT DESCRIPTION

This section describes the No Build Alternative and the four Build Alternatives studied in the WSAB Transit Corridor Draft EIS/EIR, including design options, station locations, and maintenance and storage facility (MSF) site options. The Build Alternatives were developed through a comprehensive alternatives analysis process and meet the purpose and need of the Project.

The No Build Alternative and four Build Alternatives are generally defined as follows:

- **No Build Alternative** - Reflects the transportation network in the 2042 horizon year without the proposed Build Alternatives. The No Build Alternative includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained Metro 2009 Long Range Transportation Plan (2009 LRTP) (Metro 2009a) and SCAG 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016a), as well as additional projects funded by Measure M that would be completed by 2042.
- **Build Alternatives:** The Build Alternatives consist of a new LRT line that would extend from different termini in the north to the same terminus in the City of Artesia in the south. The Build Alternatives are referred to as:
 - Alternative 1: Los Angeles Union Station to Pioneer Station; the northern terminus would be located underground at Los Angeles Union Station (LAUS) Forecourt
 - Alternative 2: 7th Street/Metro Center to Pioneer Station; the northern terminus would be located underground at 8th Street between Figueroa Street and Flower Street near 7th Street/Metro Center Station
 - Alternative 3: Slauson/A (Blue) Line to Pioneer Station; the northern terminus would be located just north of the intersection of Long Beach Avenue and Slauson Avenue in the City of Los Angeles, connecting to the current A (Blue) Line Slauson Station
 - Alternative 4: I-105/C (Green) Line to Pioneer Station; the northern terminus would be located at I-105 in the city of South Gate, connecting to the C (Green) Line along the I-105

Two design options are under consideration for Alternative 1. Design Option 1 would locate the northern terminus station box at the LAUS Metropolitan Water District (MWD) east of LAUS and the MWD building, below the baggage area parking facility. Design Option 2 would add the Little Tokyo Station along the WSAB alignment. The Design Options are further discussed in Section 2.3.6.

Figure 2-1 presents the four Build Alternatives and the design options. In the north, Alternative 1 would terminate at LAUS and primarily follow Alameda Street south underground to the proposed Arts/Industrial District Station. Alternative 2 would terminate near the existing 7th Street/Metro Center Station in the Downtown Transit Core and would primarily follow 8th Street east underground to the proposed Arts/Industrial District Station.

Figure 2-1. Project Alternatives



Source: Metro, 2020

From the Arts/Industrial District Station to the southern terminus at Pioneer Station, Alternatives 1 and 2 share a common alignment. South of Olympic Boulevard, the Alternatives 1 and 2 would transition from an underground configuration to an aerial configuration, cross over the Interstate (I) 10 freeway and then parallel the existing Metro A (Blue) Line along the Wilmington Branch ROW as it proceeds south. South of Slauson Avenue, which would serve as the northern terminus for Alternative 3, Alternatives 1, 2, and 3 would turn east and transition to an at-grade configuration to follow the La Habra Branch ROW along Randolph Street. At the San Pedro Subdivision ROW, Alternatives 1, 2, and 3 would turn southeast to follow the San Pedro Subdivision ROW and then transition to the PEROW, south of the I-105 freeway. The northern terminus for Alternative 4 would be located at the I-105/C (Green) Line. Alternatives 1, 2, 3, and 4 would then follow the PEROW to the southern terminus at the proposed Pioneer Station in Artesia. The Build Alternatives would be grade-separated where warranted, as indicated on Figure 2-2.

2.1 Geographic Sections

The approximately 19-mile corridor is divided into two geographic sections—the Northern and Southern Sections. The boundary between the Northern and Southern Sections occurs at Florence Avenue in the City of Huntington Park.

2.1.1 Northern Section

The Northern Section includes approximately 8 miles of Alternatives 1 and 2 and 3.8 miles of Alternative 3. Alternative 4 is not within the Northern Section. The Northern Section covers the geographic area from downtown Los Angeles to Florence Avenue in the City of Huntington Park and would generally traverse the Cities of Los Angeles, Vernon, Huntington Park, and Bell, and the unincorporated Florence-Firestone community of LA County (Figure 2-3). Alternatives 1 and 2 would traverse portions of the Wilmington Branch (between approximately Martin Luther King Jr Boulevard along Long Beach Avenue to Slauson Avenue). Alternatives 1, 2, and 3 would traverse portions of the La Habra Branch ROW (between Slauson Avenue along Randolph Street to Salt Lake Avenue) and San Pedro Subdivision ROW (between Randolph Street to approximately Paramount Boulevard).

Figure 2-3. Northern Section



Source: Metro, 2020

2.1.2 Southern Section

The Southern Section includes approximately 11 miles of Alternatives 1, 2, and 3 and includes all 6.6 miles of Alternative 4. The Southern Section covers the geographic area from south of Florence Avenue in the City of Huntington Park to the City of Artesia and would generally traverse the Cities of Huntington Park, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia (Figure 2-4). In the Southern Section, all four Build Alternatives would utilize portions of the San Pedro Subdivision and the Metro-owned PEROW (between approximately Paramount Boulevard to South Street).

Figure 2-4. Southern Section



Source: Metro, 2020

2.2 No Build Alternative

For the NEPA evaluation, the No Build Alternative is evaluated in the context of the existing transportation facilities in the Transit Corridor (the Transit Corridor extends approximately 2 miles from either side of the proposed alignment) and other capital transportation

improvements and/or transit and highway operational enhancements that are reasonably foreseeable. Because the No Build Alternative provides the background transportation network, against which the Build Alternatives' impacts are identified and evaluated, the No Build Alternative does not include the Project.

The No Build Alternative reflects the transportation network in 2042 and includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained Metro 2009 LRTP and the SCAG 2016-2040 RTP/SCS, as well as additional projects funded by Measure M, a sales tax initiative approved by voters in November 2016. The No Build Alternative includes Measure M projects that are scheduled to be completed by 2042.

Table 2.1 lists the existing transportation network and planned improvements included as part of the No Build Alternative.

Table 2.1. No Build Alternative – Existing Transportation Network and Planned Improvements

Project	To / From	Location Relative to Transit Corridor
Rail (Existing)		
Metro Rail System (LRT and Heavy Rail Transit)	Various locations	Within Transit Corridor
Metrolink (Southern California Regional Rail Authority) System	Various locations	Within Transit Corridor
Rail (Under Construction/Planned)¹		
Metro Westside D (Purple) Line Extension	Wilshire/Western to Westwood/VA Hospital	Outside Transit Corridor
Metro C (Green) Line Extension ² to Torrance	96th Street Station to Torrance	Outside Transit Corridor
Metro C (Green) Line Extension	Norwalk to Expo/Crenshaw ³	Outside Transit Corridor
Metro East-West Line/Regional Connector/Eastside Phase 2	Santa Monica to Lambert Santa Monica to Peck Road	Within Transit Corridor
Metro North-South Line/Regional Connector/Foothill Extension to Claremont Phase 2B	Long Beach to Claremont	Within Transit Corridor
Metro Sepulveda Transit Corridor	Metro G (Orange) Line to Metro E (Expo) Line	Outside Transit Corridor
Metro East San Fernando Valley Transit Corridor	Sylmar to Metro G (Orange) Line	Outside Transit Corridor
Los Angeles World Airport Automated People Mover	96th Street Station to LAX Terminals	Outside Transit Corridor
Metrolink Capital Improvement Projects	Various projects	Within Transit Corridor
California High-Speed Rail	Burbank to LA LA to Anaheim	Within Transit Corridor

2 Project Description

Project	To / From	Location Relative to Transit Corridor
Link US	LAUS	Within Transit Corridor
Bus (Existing)		
Metro Bus System (including BRT, Express, and local)	Various locations	Within Transit Corridor
Municipality Bus System ⁴	Various locations	Within Transit Corridor
Bus (Under Construction/Planned)		
Metro G (Orange) Line (BRT)	Del Mar (Pasadena) to Chatsworth Del Mar (Pasadena) to Canoga Canoga to Chatsworth	Outside Transit Corridor
Vermont Transit Corridor (BRT)	120th Street to Sunset Boulevard	Outside Transit Corridor
North San Fernando Valley BRT	Chatsworth to North Hollywood	Outside Transit Corridor
North Hollywood to Pasadena	North Hollywood to Pasadena	Outside Transit Corridor
Highway (Existing)		
Highway System	Various locations	Within Transit Corridor
Highway (Under Construction/Planned)		
High Desert Multi-Purpose Corridor	SR-14 to SR-18	Outside Transit Corridor
I-5 North Capacity Enhancements	SR-14 to Lake Hughes Rd	Outside Transit Corridor
SR-71 Gap Closure	I-10 to Rio Rancho Rd	Outside Transit Corridor
Sepulveda Pass Express Lane	I-10 to US-101	Outside Transit Corridor
SR-57/SR-60 Interchange Improvements	SR-70/SR-60	Outside Transit Corridor
I-710 South Corridor Project (Phase 1 & 2)	Ports of Long Beach and LA to SR-60	Within Transit Corridor
I-105 Express Lane	I-405 to I-605	Within Transit Corridor
I-5 Corridor Improvements	I-605 to I-710	Outside Transit Corridor

Source: Metro 2020, WSP 2020

Notes: ¹ Where extensions are proposed for existing Metro rail lines, the origin/destination is defined for the operating scheme of the entire rail line following completion of the proposed extensions and not just the extension itself.

² Metro C (Green) Line extension to Torrance includes new construction from Redondo Beach to Torrance; however, the line will operate from Torrance to 96th Street.

³ The currently under construction Metro Crenshaw/LAX Line will operate as the Metro C (Green) Line.

⁴ The municipality bus network system is based on service patterns for Bellflower Bus, Cerritos on Wheels, Cudahy Area Rapid Transit, Get Around Town Express, Huntington Park Express, La Campana, Long Beach Transit, Los Angeles Department of Transportation, Norwalk Transit System and the Orange County Transportation Authority.

BRT = Bus Rapid Transit; LAUS = Los Angeles Union Station; LAX = Los Angeles International Airport; VA = Veterans Affairs

2.3 Build Alternatives

2.3.1 Proposed Alignment Configuration for the Build Alternatives

This section describes the alignment for each of the Build Alternatives. The general characteristics of the four Build Alternatives are summarized in Table 2.2. Figure 2-5 illustrates the freeway crossings along the alignment. Additionally, the Build Alternatives would require relocation of existing freight rail tracks within the ROW to maintain existing operations where there would be overlap with the proposed light rail tracks. Figure 2-6 depicts the alignment sections that would share operation with freight and the corresponding ownership.

Table 2.2. Summary of Build Alternative Components

Component	Quantity			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Alignment Length	19.3 miles	19.3 miles	14.8 miles	6.6 miles
Stations Configurations	11 3 aerial; 6 at-grade; 2 underground ³	12 3 aerial; 6 at-grade; 3 underground	9 3 aerial; 6 at-grade	4 1 aerial; 3 at-grade
Parking Facilities	5 (approximately 2,780 spaces)	5 (approximately 2,780 spaces)	5 (approximately 2,780 spaces)	4 (approximately 2,180 spaces)
Length of underground, at-grade, and aerial	2.3 miles underground; 12.3 miles at-grade; 4.7 miles aerial ¹	2.3 miles underground; 12.3 miles at-grade; 4.7 miles aerial ¹	12.2 miles at-grade; 2.6 miles aerial ¹	5.6 miles at-grade; 1.0 miles aerial ¹
At-grade crossings	31	31	31	11
Freight crossings	10	10	9	2
Freeway Crossings	6 (3 freeway undercrossings ² at I-710; I-605, SR-91)	6 (3 freeway undercrossings ² at I-710; I-605, SR-91)	4 (3 freeway undercrossings ² at I-710; I-605, SR-91)	3 (2 freeway undercrossings ² at I-605, SR-91)
Elevated Street Crossings	25	25	15	7
River Crossings	3	3	3	1
TPSS Facilities	22 ³	23	17	7
Maintenance and Storage Facility site options	2	2	2	2

Source: WSP, 2020

Notes: ¹ Alignment configuration measurements count retained fill embankments as at-grade.

² The light rail tracks crossing beneath freeway structures.

³ Under Design Option 2 – Add Little Tokyo Station, an additional underground station and TPSS site would be added under Alternative 1

Figure 2-5. Freeway Crossings



Source: WSP, 2020

Figure 2-6. Existing Rail Right-of-Way Ownership and Relocation



Source: WSP, 2020

2.3.2 Alternative 1: Los Angeles Union Station to Pioneer Station

The total alignment length of Alternative 1 would be approximately 19.3 miles, consisting of approximately 2.3 miles of underground, 12.3 miles of at-grade, and 4.7 miles of aerial alignment. Alternative 1 would include 11 new LRT stations, 2 of which would be underground, 6 would be at-grade, and 3 would be aerial. Under Design Option 2, Alternative 1 would have 12 new LRT stations, including an additional underground station at the Little Tokyo Station. Five of the stations would include parking facilities, providing a total of up to 2,780 new parking spaces. The alignment would include 31 at-grade crossings, 3 freeway undercrossings, 2 aerial freeway crossings, 1 underground freeway crossing, 3 river crossings, 25 aerial road crossings, and 10 freight crossings.

In the north, Alternative 1 would begin at a proposed underground station at/near LAUS either beneath the LAUS Forecourt or, under Design Option 1, east of the MWD building beneath the baggage area parking facility (Section 2.3.6). Crossovers would be located on the north and south ends of the station box with tail tracks extending approximately 1,200 feet north of the station box. A tunnel extraction portal would be located within the tail tracks for both Alternative 1 terminus station options.

From LAUS, the alignment would continue underground crossing under the US-101 freeway and the existing Metro L (Gold) Line aerial structure and continue south beneath Alameda Street to the optional Little Tokyo Station between 1st Street and 2nd Street (note: under Design Option 2, Little Tokyo Station would be constructed). From the optional Little Tokyo Station, the alignment would continue underground beneath Alameda Street to the proposed Arts/Industrial District Station under Alameda Street between 6th Street and Industrial Street. (Note, Alternative 2 would have the same alignment as Alternative 1 from this point south. Refer to Section 2.3.3 for additional information on Alternative 2.)

The underground alignment would continue south under Alameda Street to 8th Street, where the alignment would curve to the west and transition to an aerial alignment south of Olympic Boulevard. The alignment would cross over the I-10 freeway in an aerial viaduct structure and continue south, parallel to the existing Metro A (Blue) Line at Washington Boulevard. The alignment would continue in an aerial configuration along the eastern half of Long Beach Avenue within the UPRR-owned Wilmington Branch ROW, east of the existing Metro A (Blue) Line and continue south to the proposed Slauson/A (Blue) Line Station. The aerial alignment would pass over the existing pedestrian bridge at East 53rd Street. The Slauson/A (Blue) Line Station would serve as a transfer point to the Metro A (Blue) Line via a pedestrian bridge. The vertical circulation would be connected at street level on the north side of the station via stairs, escalators, and elevators. (The Slauson/A Line Station would serve as the northern terminus for Alternative 3; refer to Section 2.3.4 for additional information on Alternative 3.)

South of the Slauson/A (Blue) Line Station, the alignment would turn east along the existing La Habra Branch ROW (also owned by UPRR) in the median of Randolph Street. The alignment would be on the north side of the La Habra Branch ROW and would require the relocation of existing freight tracks to the southern portion of the ROW. The alignment would transition to an at-grade configuration at Alameda Street and would proceed east along the Randolph Street median. Wilmington Avenue, Regent Street, Albany Street, and Rugby Avenue would be closed to traffic crossing the ROW, altering

the intersection design to a right-in, right-out configuration. The proposed Pacific/Randolph Station would be located just east of Pacific Boulevard.

From the Pacific/Randolph Station, the alignment would continue east at-grade. Rita Avenue would be closed to traffic crossing the ROW, altering the intersection design to a right-in, right-out configuration. At the San Pedro Subdivision ROW, the alignment would transition to an aerial configuration and turn south to cross over Randolph Street and the freight tracks, returning to an at-grade configuration north of Gage Avenue. The alignment would be located on the east side of the existing San Pedro Subdivision ROW freight tracks, and the existing tracks would be relocated to the west side of the ROW. The alignment would continue at-grade within the San Pedro Subdivision ROW to the proposed at-grade Florence/Salt Lake Station south of the Salt Lake Avenue/Florence Avenue intersection.

South of Florence Avenue, the alignment would extend from the proposed Florence/Salt Lake Station in the City of Huntington Park to the proposed Pioneer Station in the City of Artesia, as shown in Figure 2-4. The alignment would continue southeast from the proposed at-grade Florence/Salt Lake Station within the San Pedro Subdivision ROW, crossing Otis Avenue, Santa Ana Street, and Ardine Street at-grade. The alignment would be located on the east side of the existing San Pedro Subdivision freight tracks and the existing tracks would be relocated to the west side of the ROW. South of Ardine Street, the alignment would transition to an aerial structure to cross over the existing UPRR tracks and Atlantic Avenue. The proposed Firestone Station would be located on an aerial structure between Atlantic Avenue and Firestone Boulevard.

The alignment would then cross over Firestone Boulevard and transition back to an at-grade configuration prior to crossing Rayo Avenue at-grade. The alignment would continue south along the San Pedro Subdivision ROW, crossing Southern Avenue at-grade and continuing at-grade until it transitions to an aerial configuration to cross over the LA River. The proposed LRT bridge would be constructed next to the existing freight bridge. South of the LA River, the alignment would transition to an at-grade configuration crossing Frontage Road at-grade, then passing under the I-710 freeway through the existing box tunnel structure and then crossing Miller Way. The alignment would then return to an aerial structure to cross the Rio Hondo Channel. South of the Rio Hondo Channel, the alignment would briefly transition back to an at-grade configuration and then return to an aerial structure to cross over Imperial Highway and Garfield Avenue. South of Garfield Avenue, the alignment would transition to an at-grade configuration and serve the proposed Gardendale Station north of Gardendale Street.

From the Gardendale Station, the alignment would continue south in an at-grade configuration, crossing Gardendale Street and Main Street to connect to the proposed I-105/C (Green) Line Station, which would be located at-grade north of Century Boulevard. This station would be connected to the new infill C (Green) Line Station in the middle of the freeway via a pedestrian walkway on the new LRT bridge. The alignment would continue at-grade, crossing Century Boulevard and then over the I-105 freeway in an aerial configuration within the existing San Pedro Subdivision ROW bridge footprint. A new Metro C (Green) Line Station would be constructed in the median of the I-105 freeway. Vertical pedestrian access would be provided from the LRT bridge to the proposed I-105/C (Green) Line Station platform via stairs and elevators. To accommodate the construction of the new station platform, the existing Metro C (Green) Line tracks would be widened and, as part of the I-105 Express Lanes Project, the I-105 lanes would be reconfigured. (The I-105/C (Green) Line

Station would serve as the northern terminus for Alternative 4; refer to Section 2.3.5 for additional information on this alternative.)

South of the I-105 freeway, the alignment would continue at-grade within the San Pedro Subdivision ROW. To maintain freight operations and allow for freight train crossings, the alignment would transition to an aerial configuration as it turns southeast and enter the PEROW. The existing freight track would cross beneath the aerial alignment and align on the north side of the PEROW east of the San Pedro Subdivision ROW. The proposed Paramount/Rosecrans Station would be located in an aerial configuration west of Paramount Boulevard and north of Rosecrans Avenue. The existing freight track would be relocated to the east side of the alignment beneath the station viaduct.

The alignment would continue southeast in an aerial configuration over the Paramount Boulevard/Rosecrans Avenue intersection and descend to an at-grade configuration. The alignment would return to an aerial configuration to cross over Downey Avenue descending back to an at-grade configuration north of Somerset Boulevard. One of the adjacent freight storage tracks at Paramount Refinery Yard would be relocated to accommodate the new LRT tracks and maintain storage capacity. There are no active freight tracks south of the World Energy facility.

The alignment would cross Somerset Boulevard at-grade. South of Somerset Boulevard, the at-grade alignment would parallel the existing Bellflower Bike Trail that is currently aligned on the south side of the PEROW. The alignment would continue at-grade crossing Lakewood Boulevard, Clark Avenue, and Alondra Boulevard. The proposed at-grade Bellflower Station would be located west of Bellflower Boulevard.

East of Bellflower Boulevard, the Bellflower Bike Trail would be realigned to the north side of the PEROW to accommodate an existing historic building located near the southeast corner of Bellflower Boulevard and the PEROW. It would then cross back over the LRT tracks at-grade to the south side of the ROW. The LRT alignment would continue southeast within the PEROW and transition to an aerial configuration at Cornuta Avenue, crossing over Flower Street and Woodruff Avenue. The alignment would return to an at-grade configuration at Walnut Street. South of Woodruff Avenue, the Bellflower Bike Trail would be relocated to the north side of the PEROW. Continuing southeast, the LRT alignment would cross under the State Route-91 freeway in an existing underpass. The alignment would cross over the San Gabriel River on a new bridge, replacing the existing abandoned freight bridge. South of the San Gabriel River, the alignment would transition back to an at-grade configuration before crossing Artesia Boulevard at-grade.

East of Artesia Boulevard the alignment would cross beneath the I-605 freeway in an existing underpass. Southeast of the underpass, the alignment would continue at-grade, crossing Studebaker Road. North of Gridley Road, the alignment would transition to an aerial configuration to cross over 183rd Street and Gridley Road. The alignment would return to an at-grade configuration at 185th Street, crossing 186th Street and 187th Street at-grade. The alignment would then pass through the proposed Pioneer Station on the north side of Pioneer Boulevard at-grade. Tail tracks accommodating layover storage for a three-car train would extend approximately 1,000 feet south from the station, crossing Pioneer Boulevard and terminating west of South Street.

2.3.3 Alternative 2: 7th Street/Metro Center to Pioneer Station

The total alignment length of Alternative 2 would be approximately 19.3 miles, consisting of approximately 2.3 miles of underground, 12.3 miles of at-grade, and 4.7 miles of aerial alignment. Alternative 2 would include 12 new LRT stations, 3 of which would be underground, 6 would be at-grade, and 3 would be aerial. Five of the stations would include parking facilities, providing a total of approximately 2,780 new parking spaces. The alignment would include 31 at-grade crossings, 3 freeway undercrossings, 2 aerial freeway crossings, 1 underground freeway crossing, 3 river crossings, 25 aerial road crossings, and 10 freight crossings.

In the north, Alternative 2 would begin at the proposed WSAB 7th Street/Metro Center Station, which would be located underground beneath 8th Street between Figueroa Street and Flower Street. A pedestrian tunnel would provide connection to the existing 7th Street/Metro Center Station. Tail tracks, including a double crossover, would extend approximately 900 feet west beyond the station, ending east of the I-110 freeway. From the 7th Street/Metro Center Station, the underground alignment would proceed southeast beneath 8th Street to the South Park/Fashion District Station, which would be located west of Main Street beneath 8th Street.

From the South Park/Fashion District Station, the underground alignment would continue under 8th Street to San Pedro Street, where the alignment would turn east toward 7th Street, crossing under privately owned properties. The tunnel alignment would cross under 7th Street and then turn south at Alameda Street. The alignment would continue south beneath Alameda Street to the Arts/Industrial District Station located under Alameda Street between 7th Street and Center Street. A double crossover would be located south of the station box, south of Center Street. From this point, the alignment of Alternative 2 would follow the same alignment as Alternative 1, which is described further in Section 2.3.2.

2.3.4 Alternative 3: Slauson/A (Blue) Line to Pioneer Station

The total alignment length of Alternative 3 would be approximately 14.8 miles, consisting of approximately 12.2 miles of at-grade, and 2.6 miles of aerial alignment. Alternative 3 would include 9 new LRT stations, 6 would be at-grade and 3 would be aerial. Five of the stations would include parking facilities, providing a total of approximately 2,780 new parking spaces. The alignment would include 31 at-grade crossings, 3 freeway undercrossings, 1 aerial freeway crossing, 3 river crossings, 15 aerial road crossings, and 9 freight crossings. In the north, Alternative 3 would begin at the Slauson/A (Blue) Line Station and follow the same alignment as Alternatives 1 and 2, described in Section 2.3.2.

2.3.5 Alternative 4: I-105/C (Green) Line to Pioneer Station

The total alignment length of Alternative 4 would be approximately 6.6 miles, consisting of approximately 5.6 miles of at-grade and 1.0 mile of aerial alignment. Alternative 3 would include 4 new LRT stations, 3 would be at-grade, and 1 would be aerial. Four of the stations would include parking facilities, providing a total of approximately 2,180 new parking spaces. The alignment would include 11 at-grade crossings, 2 freeway undercrossings, 1 aerial freeway crossing, 1 river crossing, 7 aerial road crossings, and 2 freight crossings. In the north, Alternative 4 would begin at the I-105/C (Green) Line Station and follow the same alignment as Alternatives 1, 2, and 3, described in Section 2.3.2.

2.3.6 Design Options

Alternative 1 includes two design options:

- **Design Option 1:** LAUS at the Metropolitan Water District (MWD) – The LAUS station box would be located east of LAUS and the MWD building, below the baggage area parking facility instead of beneath the LAUS Forecourt. Crossovers would be located on the north and south ends of the station box with tail tracks extending approximately 1,200 feet north of the station box. From LAUS, the underground alignment would cross under the US-101 freeway and the existing Metro L (Gold) Line aerial structure and continue south beneath Alameda Street to the optional Little Tokyo Station between Traction Avenue and 1st Street. The underground alignment between LAUS and the Little Tokyo Station would be located to the east of the base alignment.
- **Design Option 2:** Add the Little Tokyo Station – Under this design option, the Little Tokyo Station would be constructed as an underground station and there would be a direct connection to the Regional Connector Station in the Little Tokyo community. The alignment would proceed underground directly from LAUS to the Arts/Industrial District Station primarily beneath Alameda Street.

2.3.7 Maintenance and Storage Facility

MSFs accommodate daily servicing and cleaning, inspection and repairs, and storage of light rail vehicles (LRV). Activities may take place in the MSF throughout the day and night depending upon train schedules, workload, and the maintenance requirements.

Two MSF options are evaluated; however, only one MSF would be constructed as part of the Project. The MSF would have storage tracks, each with sufficient length to store three-car train sets and a maintenance-of-way vehicle storage. The facility would include a main shop building with administrative offices, a cleaning platform, a traction power substation (TPSS), employee parking, a vehicle wash facility, a paint and body shop, and other facilities as needed. The east and west yard leads (i.e., the tracks leading from the mainline to the facility) would have sufficient length for a three-car train set. In total, the MSF would need to accommodate approximately 80 LRVs to serve the Project's operations plan.

Two potential locations for the MSF have been identified—one in the City of Bellflower and one in the City of Paramount. These options are described further in the following sections.

2.3.7.1 Bellflower MSF Option

The Bellflower MSF site option is bounded by industrial facilities to the west, Somerset Boulevard and apartment complexes to the north, residential homes to the east, and the PEROW and Bellflower Bike Trail to the south. The site is approximately 21 acres in area and can accommodate up to 80 vehicles (Figure 2-7).

2.3.7.2 Paramount MSF Option

The Paramount MSF site option is bounded by the San Pedro Subdivision ROW on the west, Somerset Boulevard to the south, industrial and commercial uses on the east, and All American City Way to the north. The site is 22 acres and could accommodate up to 80 vehicles (Figure 2-7).

Figure 2-7. Maintenance and Storage Facility Options



Source: WSP, 2020

3 REGULATORY FRAMEWORK

Federal

- Environmental Justice Guidance Under the National Environmental Policy Act of 1969
- Council on Environmental Quality Environmental Justice Guidance
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- USDOT Order 5610.2C (U.S. Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), issued in May 2021
- FTA Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients
- FTA Circular 4703.1, Environmental Justice Policy Guidance for FTA Recipients
- Title VI of the Civil Rights Act of 1964

State

- California Environmental Quality Act
- Caltrans Standard Environmental Reference Handbook Volume 4: Community Impacts Assessment

Regional

- Metro 2009 Long Range Transportation Plan (LRTP)

Local

- City of Los Angeles General Plan
- City of Los Angeles Land Use/Transportation Policy
- City of Vernon General Plan
- Los Angeles County General Plan 2035
- Florence-Firestone Community Plan
- City of Huntington Park General Plan
- City of Bell 2030 General Plan
- City of Cudahy 2040 General Plan
- City of South Gate General Plan 2035
- City of South Gate Hollydale Village Specific Plan
- City of Downey Vision 2025
- City of Paramount General Plan
- City of Bellflower General Plan: 1995-2010
- City of Artesia General Plan 2030
- City of Cerritos General Plan

3.1 Federal

3.1.1 National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969, as amended, established that the federal government must use all practicable means to ensure for all Americans safe, healthful,

productive, and aesthetically and culturally pleasing surroundings. The Council on Environmental Quality (CEQ) regulations, which establishes the steps necessary to comply with NEPA, requires evaluation of the potential environmental consequences of all proposed federal activities and program.

3.1.2 Council on Environmental Quality Environmental Justice Guidance

A *Presidential Memorandum* accompanied Executive Order 12898, stating that "each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by [NEPA]." The CEQ responded to this order by issuing *Environmental Justice Guidance under the National Environmental Policy Act* (CEQ 2017) for agencies on how to address environmental justice under NEPA. The CEQ Environmental Justice Guidance includes general principles for addressing environmental justice during the NEPA process, such as considering relevant public health data; recognizing interrelated cultural, social, occupational, historical, or economic factors; and developing effective public participation strategies.

3.1.3 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898, signed by President Clinton in February 1994, directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of their projects on the health or environmental of minority and low-income population to the greatest extent practicable and permitted by law. Executive Order 12898 also directs Federal actions, including transportation projects, to use existing law to avoid discrimination on the basis of race, color, or national origin, and to avoid disproportionately high and adverse impact on minority and low-income populations. These populations are often referred to as EJ populations.

In August 2011, a Memorandum of Understanding (MOU) on EJ and Executive Order 12898 was issued stressing the importance of identifying and addressing EJ considerations in federal agency programs, policies, and activities as provided in Executive Order 12898. It states, "each Federal agency will identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations, including, but not limited to, as appropriate for its mission, in the following areas: (1) implementation of the NEPA; (2) implementation of Title VI of the *Civil Rights Act of 1964*, as amended; (3) impacts from climate change; and (4) impacts from commercial transportation and supporting infrastructure ("goods movement")." The *Age Discrimination Act of 1975* prohibits the discrimination based on age of individuals from having meaningful access and participating in federally funded programs.

3.1.4 U.S. Department of Transportation Order 5610.2C, U.S. Department of Transportation Actions Address Environmental Justice in Minority Populations and Low-Income Populations

USDOT Order 5610.2C updates EJ procedures for the USDOT in response to the *Memorandum of Understanding on Environmental Justice* signed by heads of Federal agencies on August 4, 2011, USDOT's revised *Environmental Justice Strategy*, updated on November 15, 2016, and Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, dated February 11, 1994. USDO's original Environmental Justice

Order, issued April 15, 1997, was a key component of the Department's original strategy and established procedures to be used by USDOT to comply with Executive Order 12898. USDOT Order 5610.2C continues to be a key component of USDOT's Environmental Justice Strategy. It updates and clarifies certain aspects of the original Order while maintaining its general framework and procedures and commitment to promoting the principles of environmental justice in all DOT programs, policies, and activities.

USDOT Order 5610.2C, updates the procedures to use in order to comply with Executive Order 12898 and to avoid disproportionately high and adverse effects on minority and low-income populations.

Three fundamental EJ principles are as follows:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority population and low-income populations

USDOT Order 5610.2C sets forth USDOT policy to consider EJ principles in all USDOT programs, policies and activities. It describes how the objectives of EJ will be integrated into planning and programming, rulemaking, and policy formulation. The order sets forth steps to prevent disproportionately high and adverse effects to minority or low-income populations through Title VI analyses and EJ analyses conducted as part of federal transportation planning and NEPA provisions. It also describes the specific measures to be taken to address instances of disproportionately high and adverse effects and sets forth relevant definitions. The order clarify the distinction between a Title VI analysis and an EJ analysis conducted as part of a NEPA review and affirm the importance of considering EJ principles as part of early planning activities in order to avoid disproportionately high and adverse effects.

3.1.5 FTA Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients

FTA Circular 4702.1B was issued on October 1, 2012. This circular provides recipients of FTA financial assistance with guidance and instructions necessary to carry out the USDOT Title VI regulations and to integrate into their programs and activities considerations expressed in the USDOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient Persons. Title VI prohibits discrimination by recipients of federal financial assistance on the basis of race, color, and national origin, including the denial of meaningful access for limited LEP persons. Objectives of FTA Circular 4702.1B are to help FTA federal funding recipients to:

- Ensure that the level and quality of public transportation service is provided in a nondiscriminatory manner;
- Promote full and fair participation in public transportation decision-making without regard to race, color, or national origin; and
- Ensure meaningful access to transit-related programs and activities by persons with LEP.

3.1.6 FTA Circular 4703.1, Environmental Justice Policy Guidance for FTA Recipients

In August 2012, FTA made available FTA Circular 4703.1, which provides recommendations to State Departments of Transportation, Metropolitan Planning Organizations, public transportation providers, and other recipients of FTA funds on how to fully engage EJ populations in the decision-making process; how to analyze or determine whether EJ populations would be subjected to disproportionately high and adverse human health or environmental effects as a result of a transportation project; and how to avoid, minimize, or mitigate such effects. The circular does not contain any new requirements, policies, or directives, but instead provides more detailed discussions of public outreach strategies, includes advice on how to develop and gather meaningful demographic information, and provides guidance on deciding whether an EJ population in the study area is “meaningfully greater” than the EJ population in the general population.

3.1.7 Title VI of the Civil Rights Act of 1964

Title VI of the *Civil Rights Act of 1964* and related statutes require federally assisted programs not to discriminate on the basis of race, color, national origin, age, sex, or disability (religion is a protected category under the *Fair Housing Act of 1968*). Title VI of the *Civil Rights Act of 1964* declared “it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance and authorizes and directs the appropriate Federal departments and agencies to take action to carry out this policy.”

3.2 State

3.2.1 California Environmental Quality Act

State law defines EJ in California Government Code Section 65040.12, as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies”. While there is no requirement under CEQA to address environmental justice, California law requires the Office of Planning and Research to coordinate with federal agencies regarding environmental justice based on Executive Order 12898.

3.2.2 Caltrans Standard Environmental Reference Handbook Volume 4: Community Impacts Assessment

The Standard Environmental Reference provides a single, standard reference on compliance with NEPA and related federal laws, executive orders, regulations, and policies. Volume 4 of the Standard Environmental Reference Handbook contains guidance to identify EJ populations and to identify disproportionately high and adverse effects on minority and low-income populations. It provides several ways to ensure a successful public involvement process, particularly for the EJ population.

3.3 Regional

3.3.1 Metro 2009 Long Range Transportation Plan

Metro includes guidelines and planning policies regarding EJ issues in its current 2009 Metro LRTP. Metro’s LRTP evaluates how much additional transit service would be provided in areas with high transit dependency and minority populations. The LRTP defines transit dependent areas as those Census tracts with a higher number of low-income, zero-car

households, or senior households than the countywide average. The LRTP includes extensive transit investments and policies about placement of these investments in proximity to areas with minority and lower-income populations and to job opportunities that support those areas. The Project is included in the LRTP.

3.4 Local

3.4.1 City of Los Angeles General Plan

The *City of Los Angeles General Plan* consists of the Framework, Health and Wellness, Air Quality, Conservation, Housing, Noise, Open Space, Service Systems, Safety, and Mobility Elements. The *General Plan Framework Element* (City of Los Angeles 2001), adopted in December 1996, is a strategy for long-term growth which sets a citywide context to guide the update of the community plans and citywide elements.

The *2013-2021 Housing Element of the City of Los Angeles General Plan* (City of Los Angeles 2013), adopted in December 2013, identifies the city's housing conditions and needs; establishes goals, objectives, and policies that are the foundation of the city's housing and growth strategy; and provides the array of programs the city intends to implement to create sustainable, mixed-income neighborhoods across the city.

Mobility Plan 2035 (MP2035) Plan (City of Los Angeles 2016a), adopted in September 2016, is the City of Los Angeles General Plan transportation element. The MP2035 presents a guide to the development of a citywide transportation system that provides for the efficient movement of people and goods. MP2035 recognizes that primary emphasis must be placed on maximizing the efficiency of existing and proposed transportation infrastructure through advanced transportation technology, through reduction of vehicle trips, and through focusing growth in proximity to public transit.

The *Land Use Element of the City of Los Angeles General Plan* is comprised of 35 community plans, which describe the land use designations, policies, and implementation programs for each community plan area (CPA). Each community plan discusses goals, objectives, and policies for developing a public transit system that improves mobility with convenient alternatives to automobile travel, encouraging transportation demand management strategies, developing active transportation options and coordinating activities with other jurisdictions. The Build Alternatives would traverse through the Central City North, Central City, and Southeast Los Angeles CPAs.

Table 3.1 lists applicable EJ-related goals, objectives, and policies of the City of Los Angeles General Plan and Community Plans.

Table 3.1. City of Los Angeles General Plan Relevant Goals, Objectives and Policies

Goal/Objective/Policy	Description
Framework Element	
Objective 7.2	Establish a balance of land uses that provides for commercial and industrial development which meets the needs of local residents, sustains economic growth, and assures maximum feasible environmental quality.
Objective 7.3	Maintain and enhance the existing businesses in the City.
Objective 7.8	Maintain and improve municipal service levels throughout the City to support current residents' quality of life and enable Los Angeles to be competitive when attracting desirable new development.
Goal 7H	A distribution of economic opportunity throughout the City.
Objective 7.10	Program resources in a manner that encourages appropriate development, housing opportunities, transit service and employment generation in all areas of the City, with particular emphasis on those portions of the City which historically have not received a proportional share of such opportunities, consistent with the City's overall economic policies.
Policy 7.10.1	Focus available implementation resources in centers, districts, and mixed-use boulevards or "communities of need."
Policy 7.10.2	Support efforts to provide all residents with reasonable access to transit infrastructure, employment, and educational and job training opportunities.
Policy 7.10.3	Determine appropriate levels of service for, but not limited to, educational facilities, hospitals, job training and referral centers, and transportation opportunities in the "communities of need."
Housing Element	
Objective 2.2	Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services, and transit.
Policy 2.2.5	Provide sufficient services and amenities to support the planned population while preserving the neighborhood for those currently there.
Mobility Plan 2035	
Policy 1.2	Implement a balanced transportation system on all streets, tunnels, and bridges using complete streets principles to ensure the safety and mobility of all users.
Policy 2.6	Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities.
Policy 2.15	Expand funding to improve the built environment for people who walk, bike, take transit, and for other vulnerable roadway users.
Policy 3.3	Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.
Policy 3.4	Provide all residents, workers, and visitors with affordable, efficient, convenient, and attractive transit services.
Policy 4.3	Ensure the fair and equal treatment of people of all races, cultures, incomes, and education levels with respect to the development and implementation of citywide transportation policies and programs.

Goal/Objective/Policy	Description
Policy 4.6	Make the most of limited financial resources by utilizing data to prioritize transportation projects based upon equity in safety, public health, access, social benefits, and/or economic benefits.
Central City North Community Plan	
Goal 1	To preserve and enhance the varied and distinct residential character and integrity of existing residential neighborhood
Objective 1-1	To provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the Central City North Plan area to the year 2010.
Policy 1-1.3	The City should promote neighborhood preservation, particularly in existing low density multi-family neighborhoods.
Objective 1-4	To promote and insure the provision of adequate housing for all persons regardless of income, age, or ethnic background.
Central City Community Plan	
Policy 11-2.13	Reinforce the integration and accessibility of the neighborhoods surrounding Downtown with the Downtown core through enhanced levels of service (“shortline,” additional trains, buses, etc.).
Southeast Los Angeles Community Plan	
Goal LU 1	Safe, secure, healthy and high quality residential environments that provide housing for all segments of the community.
Policy LU 3.1	Address Diverse Residential Needs. Provide for the development of appropriately located housing to meet the diverse demographics of existing and future residents.
Policy LU 3.6	Mixed-Income Neighborhoods. Encourage development of mixed-income neighborhoods to reduce segregation and concentrations of poverty.
Policy LU 18.5	Safety and Design. Urge the responsible agencies to fund infrastructure improvements that address safety issues, as well as maintenance and beautification of the Metro Blue Line and freight rail corridor along Long Beach Ave
Goal M6	An expanded public transit system that provides residents, employees, and visitors safe and efficient access to jobs, services, recreation and other community assets, so that automobile dependence can be reduced.

Source: City of Los Angeles, 2000, 2001, 2003, 2013, 2016a, 2017

3.4.2 City of Los Angeles Land Use/Transportation Policy

The City of Los Angeles *Land Use/Transportation Policy*, adopted in November 1993, is a joint effort of Metro and the City of Los Angeles to coordinate land use and transportation investment decisions. It is a long-term strategy for integrating land use, housing, transportation and environmental policies into the development of a city form that complements and maximizes the utilization of the region’s transit system. The Land Use/Transportation Policy covers eight elements (Land Use, Housing, Urban Design, Ridership Strategy, Parking and Traffic Circulation, Equity, Economic Development, and Community Facilities Elements) that are intended to guide the land use and circulation

patterns linked to the transit system. The following lists the applicable EJ-related policies in the *Land Use/Transportation Policy*:

- Equity
 - The City shall support and impact the decision-making process to ensure equal access and mobility to all City residents, to meet under-serving and unmet transit needs and, within the existing and proposed system, to give priority for development and revitalization to economically disadvantaged areas.
 - The City shall promote an equitable and balanced approach for the economic and mobility benefits of its residents in its advocacy for future funding/programming for transportation improvements and services.
 - The City and Metro shall work together to optimize participation by Disadvantaged Business Enterprises/Minority Business Enterprises/Women Business Enterprises in all residential, commercial, and transit services and construction contracts and development in transit corridors.
 - The funds collected through Metro’s transit-related development projects shall, to the extent permitted by law, be distributed systemwide based on the equity principles contained in the Land Use/Transportation Policy.
 - The City and Metro shall utilize a Citizen Participation Process, which shall ensure community input and equitable decision-making in all phases of system and land use planning, development, engineering, and implementation.
 - City economic development funds shall be given priority to support the equity policy while transit funds shall be programmed for transit programs.
- Economic Development
 - Create employment opportunities in TOD’s by adopting a community job hiring/training program for public and private ventures.
 - Develop business attraction, retention, and expansion strategies for TODs.
 - Community revitalization programs such as redevelopment areas and enterprise zones shall be consistent with and support all elements of this Land Use Policy for transit station areas when the revitalization areas encompass a TOD.
Community revitalization programs such as redevelopment areas and enterprise zones shall be consistent with and support all elements of this Land Use Policy for transit station areas when the revitalization areas encompass a TOD.

3.4.3 City of Vernon General Plan

The *City of Vernon General Plan* (City of Vernon 2015), adopted in December 2007 and last amended in April 2015, identifies key policies to remain almost exclusively an industrial city. Table 3.2 lists the applicable EJ-related goal of the Circulation and Infrastructure Element.

Table 3.2. City of Vernon General Plan Relevant Goal

Goal	Description
Circulation and Infrastructure Element	
Goal CI-1	Provide a balanced transportation system for the safe and efficient movement of people, goods, and emergency services throughout the City.

Source: City of Vernon, 2015

3.4.4 Los Angeles County General Plan 2035

The *Los Angeles County General Plan 2035* (LA County 2015), adopted in October 2015, consists of the Land Use, Mobility, Air Quality, Conservation and Natural Resources, Parks and Recreation, Noise, Safety, Public Services and Facilities, Economic Development, and Housing Elements. The General Plan provides a mechanism for local communities to work with the County to develop plans that respond to their unique and diverse character. Table 3.3 lists the applicable EJ-related goals and policies of the *Los Angeles County General Plan 2035*.

Table 3.3. Los Angeles County General Plan Relevant Policies

Policy	Description
Economic Development Element	
Policy ED 2.3	Ensure environmental justice in economic development activities.
Land Use Element	
LU 5.7	Direct resources to areas that lack amenities, such as transit, clean air, grocery stores, bikeways, parks, and other components of a healthy community.
Mobility Element	
Goal M 4	An efficient multimodal transportation system that serves the needs of all residents.
Policy M 4.4	Ensure expanded mobility and increase transit access for underserved transit users, such as seniors, students, low income households, and persons with disabilities.
Policy ED 2.7	Incentivize economic development and growth along existing transportation corridors and in urbanized areas.

Source: LA County, 2015

3.4.5 Florence-Firestone Community Plan

The *Florence-Firestone Community Plan*, adopted in September 2019, is a policy document for the future development, conservation and maintenance of the Florence-Firestone community. The Community Plan reflects the community's shared vision of the future and establishes goals, policies, and implementation actions to achieve that vision. The Community Plan provides EJ-related goals and policies to address EJ and ease the disproportionate environmental burden on the disadvantaged community. Table 3.4 lists the applicable EJ-related goals and policies of the *Florence-Firestone Community Plan*.

Table 3.4. Florence-Firestone Community Plan Relevant Goals and Policies

Goal/Policy	Description
Goal R-1	Housing options meet a range of residents' needs, income levels, and household sizes, providing for increased housing supply and affordability.
Goal EJ-1	Residents are protected from harmful environmental effects.
Policy EJ-1.1	Compatible Land Uses. Require that existing development, especially near sensitive uses, meets current development and performance standards, comply with existing regulatory requirements, and be operationally compatible with surrounding uses.
Goal EJ-2	New and existing development and land uses have minimal negative environmental impact.
Goal EJ-4	The community is engaged and has access to information and resources related to environmental justice issues.
Policy EJ-4.1	Environmental Justice Decision Making. Ensure environmental justice, cumulative environmental impacts, and public health outcomes are analyzed in discretionary land use proposals and taken into account during the decision-making process.
Policy EJ-4.2	Public Awareness About Land Use. Increase public participation and ensure the public and other stakeholders are informed and have access to information on environmental justice issues and environmental and health risks impacting their community
Policy EJ-4.4	Access to Public Information. Encourage community member participation in local matters, such as land use decision-making, by providing multilingual notices and translation services as needed

Source: LA County, 2017

3.4.6 City of Huntington Park General Plan

The *City of Huntington Park General Plan* (City of Huntington Park 2017) was adopted in February 1991 and amended in 1996. The *2008-2014 Housing Element of the City of Huntington Park General Plan*, adopted in February 2009, identifies strategies and programs that focus on preserving and improving housing and neighborhoods; providing adequate housing sites; assisting in the provision of affordable housing; removing governmental and other constraints to housing investment; and promoting fair and equal housing opportunities. Huntington Park is in the process of updating its General Plan and Housing Element that will further define public transportation goals and policies. Table 3.5 lists the applicable EJ-related policies of the *General Plan 2030*.

Table 3.5. City of Huntington Park General Plan Relevant Policies

Policy	Description
Land Use Element	
Goal 1.0	Provide for a mix of land uses which meets the diverse needs of all Huntington Park residents, offers a variety of employment opportunities, and allows for the capture of regional growth.
Housing Element	
Policy 2	The City of Huntington Park shall minimize housing displacement and require expeditious and equitable relocation in the event units are demolished.
Policy 4	The City of Huntington Park shall vigorously oppose any public agency initiative that would result in the removal of existing housing units without the provision of replacement housing.
Policy 18	The City of Huntington Park shall ensure adequate housing and high-quality community services for all persons regardless of income, age, race, sex, marital status, or ethnic background.

Source: City of Huntington Park, 2017

3.4.7 City of Bell 2030 General Plan

The *City of Bell 2030 General Plan* (City of Bell 2018), adopted in May 2018, includes the Land Use and Sustainability, Resource Management, Health and Safety, Mobility and Circulation, and Housing Elements. The General Plan is a long-range comprehensive plan designed to control and regulate growth in the City and to maintain the quality of the environment. Table 3.6 lists the applicable EJ-related policies of the *City of Bell 2030 General Plan*.

Table 3.6. City of Bell 2030 General Plan Relevant Policies

Policy	Description
Land Use and Sustainability Element	
Policy 12	The City of Bell shall review the need for new or expanded public facilities to address the City's changing demographic character. The City shall ensure that the general public and residents are involved in this planning process. Finally, the City shall keep abreast of changing demographic trends.
Policy 35	The City of Bell shall emphasize environmental justice in the review and implementation of new development projects in the City.
Policy 36	The City of Bell shall collaborate with other public agencies to ensure that future development projects that are undertaken by these other entities consider environmental justice in the planning process.
Policy 37	The City of Bell emphasize the importance of environmental justice in the planning and implementation of future regional improvement projects.
Housing Element	
Policy 4	The City of Bell shall minimize housing displacement and require expeditious and equitable relocation in the event units are demolished. A Housing Relocation Plan must be established prior to any demolition of housing.
Policy 7	The City of Bell shall minimize displacement in future development activities, while at the same time, promote the expeditious and equitable housing replacement. New residential projects involving displacement must assist in the relocation of displaced residents.

Source: City of Bell, 2018

3.4.8 City of Cudahy 2040 General Plan

The *Cudahy 2040 General Plan* (City of Cudahy 2018), adopted in March 2018, is divided into the Land Use, Housing, Circulation, Open Space and Conservation, Economic Development, Safety, Air Quality, and Noise Elements. The General Plan takes a holistic approach to environmental justice with goals to reduce the unique or compounded health risks in disadvantaged communities, promote community engagement in the public decision-making process, and prioritize improvements and programs to address the needs of disadvantaged communities. The General Plan supports the environmental justice goal by reducing pollution exposure; promoting public facilities, food access, safe and sanitary homes, physical activity, and adaptation to climate change; and promoting civil engagement. Table 3.7 lists the applicable EJ-related goals and policies of the *Cudahy 2040 General Plan*.

Table 3.7. City of Cudahy General Plan Relevant Goals and Policies

Goal/Policy	Description
Policy CE 2.4	Increase the visibility and quality of public transit stops throughout Cudahy, making public transit use comfortable, accessible and practical for users of all ages and abilities.
Policy CE 3.5	Continue to use Measure R funds, Measure M funds, and other federal, State of California, and regional funding sources to improve the operation of public transit in Cudahy.
Policy AQE 5.3	Pursue “green” projects that improve public health and leverage funding available to disadvantaged and social justice communities.

Source: City of Cudahy, 2018

3.4.9 City of South Gate General Plan 2035

The *City of South Gate General Plan 2035* (City of South Gate 2009), adopted in December 2009, is divided into Community Design, Mobility, Economic, Green City, Healthy Community, Public Facilities and Services, and Noise Elements. The General Plan guides long-term growth, development and conservation in the City and addresses sustainability and community. Table 3.8 lists the applicable EJ-related objectives and policies of the *City of South Gate General Plan 2035*.

Table 3.8. City of South Gate General Plan Relevant Objectives and Policies

Objective/Policy	Description
Community Design Element	
Objective CD 1.1, P.3	The City should develop strong relationships with its immediate neighbors and work together on projects of mutual interest and concern.
Objective CD 1.1, P.4	City sponsored or approved projects (including plans, public works projects and private development projects) should be reviewed for their environmental, public health, social and fiscal impact on the City.
Objective CD 1.1, P.5	The City should actively support regional transportation decisions that benefit the City and the region.
Objective CD 4.1, P.11	The City will work collaboratively with neighborhood associations and other community groups to address nuisances, eliminate blight and ensure that community aesthetic standards are maintained.

Objective/Policy	Description
Healthy Community Element	
Objective HC 1.1, P.5	The City may seek input from the Los Angeles County Department of Public Health and others on proposed development projects or other land use and transportation decisions to ensure that the decisions achieve positive health outcomes.
Objective HC 2.3, P.1	The City will promote and support transportation decisions that reduce driving and increase rates of transit use, walking and biking, recognizing that local and regional transportation decisions impact the health of South Gate's residents and workers.
Objective HC 2.3, P.2	The potential positive and negative health impacts of new transportation projects should be considered prior to approval by the City Council.
Objective HC 2.3, P.4	The City will promote transit- and pedestrian- oriented development throughout the City.
Objective HC 4.1, P1	The City should strive to maintain and improve the safety of the transportation system through implementation of the policies in the Mobility Element and other actions, as necessary.
Objective HC 7.2	Encourage and enable transportation behavior that improves air quality and respiratory health.
Objective HC 7.2, P1	The City will implement strategies in the Mobility Element that improve air quality through transportation. These include multi-modal transit, reduction of Vehicle Miles Traveled (VMT) through Transportation Demand Management (TDM), and improved bicycle and pedestrian facilities.
Objective HC 7.2, P3	The City should support federal, state, and regional agencies in their efforts to reduce exposure to emissions from railroad, truck, and industrial diesel emissions.
Objective HC 11.1	Provide opportunities for participation in the City's planning process.
Objective HC 11.1, P3	The City will work collaboratively with neighborhood associations and other similar organizations to address issues of concern in neighborhoods.
Noise Element	
Objective N 4.2	Minimize noise levels created by the Union Pacific, Southern Pacific, and any future rail systems located in close proximity to residential and other noise-sensitive land uses.
Objective N 4.2 P.1	The City will work with rail operators to install and maintain noise mitigation features where operations adversely impact existing or planned residential and other noise-sensitive land uses.
Objective N 4.2, P.6	The City will require that noise attenuation measures be incorporated into all new development, renovations, and remodels of residential, health care facilities, schools, libraries, senior facilities, and churches in close proximity to existing or known planned rail lines. Sound attenuation measures will reduce interior noise to a maximum of 45 dBA CNEL.

Source: City of South Gate, 2009

3.4.10 City of South Gate Hollydale Village Specific Plan

The *Hollydale Village Specific Plan* (City of South Gate 2017), adopted in June 2017, is a South Gate-initiated plan to demonstrate a clear vision for Hollydale with the anticipated arrival of the Project and proposed Gardendale and I-105/Green Line Stations in the vicinity. The *Hollydale Village Specific Plan* would revitalize the Hollydale Village community and improve access to all modes of active transportation, including transit, walking and bicycling. The *Hollydale Village Specific Plan* would also encourage TODs, promote active transportation, reduce vehicles miles traveled, improve access to regional open space resources, and create community benefits. Table 3.9 lists the applicable EJ-related goals and policies of the *Hollydale Village Specific Plan*.

Table 3.9. City of South Gate Hollydale Village Specific Plan Relevant Goals and Policies

Goal/Policy	Description
Goal 2	Create a range of housing opportunities and choices.
Policy 2.3	Preserve existing stock of affordable housing.
Policy 5.2	Coordinate with Metro to minimize the impacts of traffic and parking related to the Green Line I-105 Transfer Station on the adjacent residential neighborhoods.
Policy 5.3	Provide a variety of housing choices within walking distance of the Eco-Rapid Gardendale Station.

Source: City of South Gate, 2017

3.4.11 City of Downey Vision 2025

The *City of Downey General Plan (Vision 2025)* (City of Downey 2005), adopted in January 2005, is divided into Land Use, Circulation, Housing, Conservation, Safety, Noise, Open Space, Design, and Economic Development Elements. The General Plan serves as a guide to address further changes in the community. Table 3.10 lists the applicable EJ-related goals, policies and programs of the *City of Downey General Plan*.

Table 3.10. City of Downey General Plan (Vision 2025) Relevant Goals, Policies and Programs

Goal/Policy/Program	Description
Circulation Element	
Program 2.2.4.7	Coordinate and evaluate with MTA and other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City, especially along Lakewood Boulevard.
Goal 2.4	Reduce adverse impacts onto city streets from traffic traveling through the region.
Land Use Element	
Program 1.4.1.4	Promote public participation in the planning process.
Program 2.2.4.7	Coordinate and evaluate with MTA and other public transit authorities to assure their planning efforts will meet the changing and increasing public transit needs of the City, especially along Lakewood Boulevard.

Goal/Policy/Program	Description
Noise Element	
Program 6.1.1.3	Continue to work with the Metropolitan Transportation Authority and other transit agencies toward minimizing noise impacts by discouraging the use of local residential streets as transit routes.
Policy 6.2.2	Support measures to reduce noise generated by railroad traffic.

Source: City of Downey, 2005

3.4.12 City of Paramount General Plan

The *City of Paramount General Plan* (City of Paramount 2007), adopted in August 2007, is divided into Land Use, Transportation, Resource Management, Health and Safety, Economic Development, and Public Facilities. Table 3.11 lists the applicable EJ-related policies of the *City of Paramount General Plan*.

Table 3.11. City of Paramount General Plan Relevant Policies

Policy	Description
Economic Development Element Policy 15	The City of Paramount will ensure that future development, supported in whole or part through redevelopment, is fiscally sound and benefits the community.

Source: City of Paramount, 2007

3.4.13 City of Bellflower General Plan

The *City of Bellflower General Plan: 1995-2010* (City of Bellflower 1994), adopted in December 1994, includes the Land Use, Circulation, Housing, Conservation, Noise, Safety, and Open Space/Recreation Elements. The General Plan establishes goals, policies, and implementation programs to accomplish goals of the plan. Table 3.12 lists the applicable EJ-related goals and policies of the *City of Bellflower General Plan*.

Table 3.12. City of Bellflower General Plan Relevant Goals and Policies

Goal/ Policy	Description
Land Use Element	
Policy 2.1	Create opportunities wherein a population diverse in terms of income, age, occupation race, lifestyle, values, interest, and religion may interact, exchange ideas, and realize common goals.
Noise Element	
Goal 4	Minimize railroad noise impacts on residential areas.

Source: City of Bellflower, 1994

3.4.14 City of Artesia General Plan 2030

The *City of Artesia General Plan 2030* (City of Artesia 2010), adopted in 2014, is divided into the Community Development and Design, Community Resources and Wellness, Community Culture and Economy, and Sustainability Elements. The goals, policies, and programs of the General Plan is based on three pillars of sustainability: environment, economy, and equity. These principles are interconnected and valued equally to address the social, environmental and economic needs of the current population and future generations. Table 3.13 lists the applicable EJ-related goals and policies of the *City of Artesia General Plan 2020*.

Table 3.13. City of Artesia General Plan – Relevant Goals and Policies

Goal/Policy	Description
Land Use Sub-Element	
Policy LU 2.3	Prohibit uses that lead to deterioration of residential neighborhoods, or adversely impact the safety or the residential character of a neighborhood.
Community Facilities and Infrastructure Sub-Element	
Community Policy CFI 1.1	Maintain facilities and infrastructure to serve diverse community needs.
Community Policy CFI 1.2	Promote equitable distribution of community facilities and infrastructure.
Air Quality and Climate Change Sub-Element	
Community Policy AQ 1.2	Increase awareness and participation throughout the community in efforts to reduce air pollution and enhance air quality.
Noise Sub-Element	
Community Goal N 2	Noise impacts from transportation sources are minimized.
Community Policy N 2.1	Encourage outside agencies to minimize impacts of noise from regional transportation corridors.
Community Policy N 2.2	Reduce noise impacts from transportation corridors under the City's jurisdiction.
Sustainability Sub-Element	
Community Policy SUS 6.2	Protect and enhance environmental and public health by reducing or eliminating the use of hazardous and toxic materials; minimizing pollutants entering the air, soil, and water; and lessening the risks which environmental problems pose to human health and prosperity.

Source: City of Artesia, 2010

3.4.15 City of Cerritos General Plan

The *City of Cerritos General Plan* (City of Cerritos 2004), adopted in January 2004, links the city's community values, visions and objectives with the way the city uses its public and private land and other community resources. Table 3.14 lists the applicable EJ-related goals and policies of the *City of Cerritos General Plan*.

Table 3.14. City of Cerritos General Plan – Relevant Goals and Policies

Goal/Policy	Description
Circulation Element	
Goal CIR-8	Strive to achieve a public transportation system which serves the needs of the community, is accessible to all and is a viable alternative to the single occupant vehicle.
Growth Management Element	
Goal GM-6	Provide adequate transportation and circulation system to meet the needs of residents and businesses in Cerritos.
Policy GM-6.3	Ensure that all future development's transportation and circulation impacts are properly mitigated.

Source: City of Cerritos, 2004

4 AFFECTED ENVIRONMENT/EXISTING CONDITIONS

4.1 Race and Ethnicity

4.1.1 Jurisdiction Wide

The EJ Affected Area includes several different racial and ethnic groups. As defined by the U.S. Census Bureau, “race” included in the census questionnaire generally reflects a social definition of race recognized in this country and does not attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the race categories include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture. People who identify their origin as Hispanic, Latino, or Spanish may be of any race. Table 4.1 characterizes the racial groups in the jurisdictions.

Table 4.1. Racial Characteristics of the Jurisdictions

Jurisdiction	Percent Share of Total Population ^{1,2,3,4,5}						
	White Only	Black Only	White Only	Asian Only	White Only	Some Other Race Only	Two or More Races ⁶
County of Los Angeles ⁷	53.3%	8.3%	0.6%	14.1%	0.3%	19.6%	3.9%
City of Los Angeles ⁸	52.7%	9.0%	0.7%	11.6%	0.2%	22.4%	3.5%
Central City North ⁹	31.8%	14.9%	0.8%	36.5%	0.4%	12.9%	2.7%
Central City ⁹	38.3%	18.7%	0.6%	25.8%	0.1%	11.7%	4.9%
Southeast Los Angeles ⁹	34.1%	17.8%	0.7%	0.5%	0.1%	45.5%	1.3%
Florence-Firestone	46.5%	8.1%	1.1%	0.3%	0.0%	42.7%	1.3%
Vernon	36.6%	0.0%	0.0%	7.3%	0.0%	56.1%	0.0%
Huntington Park	68.9%	0.6%	0.4%	0.7%	0.4%	27.8%	1.2%
Bell	74.2%	1.1%	0.4%	1.1%	0.1%	22.0%	1.0%
Cudahy	73.7%	0.7%	0.2%	0.7%	0.0%	22.8%	1.9%
South Gate	54.0%	1.0%	0.3%	0.6%	0.1%	42.1%	1.8%
Downey	65.4%	3.8%	0.2%	6.7%	0.2%	21.0%	2.6%
Paramount	49.4%	10.0%	0.6%	3.0%	0.9%	33.4%	2.7%
Bellflower	38.2%	14.8%	0.4%	11.8%	0.2%	30.9%	3.7%
Cerritos	23.5%	7.6%	0.4%	60.7%	0.2%	4.4%	3.2%
Artesia	39.5%	2.2%	0.2%	40.1%	0.0%	15.0%	3.0%

Source: US Census Bureau, 2016; TAHA, 2021

Notes: ¹ The US Census Bureau racial categories in the census questionnaire generally reflect a social definition of race recognized in this country and does not attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the race categories include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

² The US Census Bureau defines “ethnicity” as either “Hispanic or Latino” or “Not Hispanic or Latino.” “Hispanic or Latino” is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. People who identify as Hispanic, Latino, or Spanish may be any race.

³ Data is from US Census Bureau, 2011-2015 ACS 5-Year Estimates (Table B02001 RACE).

⁴ This table includes race only and does not distinguish by ethnicity (Hispanic/Latino by origin). People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

⁵ Percent Share of Total Population shows what percentage of a given community total population is a given race (Percent Share of Total Population = Race Population in an Affected Community ÷ Total Population in Same Affected Community).

⁶ Two or more races includes subcategories: “Two races including some other race” and “Two race excluding some other race, and three or more races”.

⁷ LA County contain US Census Bureau block group information for the entire county

⁸ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups

⁹ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area.

The US Census Bureau defines “ethnicity” as either “Hispanic or Latino” or “Not Hispanic or Latino.” “Hispanic or Latino” is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. People who identify as Hispanic, Latino, or Spanish may be any race. Based on the CEQ guidelines, a community is considered an EJ community if the minority population in the affected community is at least 10 percent higher than the average of the minority population in LA County. The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent. Table 4.2 characterizes the ethnicities of the jurisdictions.

Based on the 2011-2015 ACS, Southeast Los Angeles (99.1 percent), Florence-Firestone (99.4 percent), Huntington Park (98.7 percent), Cudahy (97.3 percent), and South Gate (97.1 percent) have the highest percent of minority populations. Central City (70.3 percent), Vernon (75.6 percent), Artesia (80.5 percent), Bellflower (82.4 percent), and Central City North (82.7 percent) have the highest percent of minority populations.

Table 4.2. Ethnic Characteristics of the Jurisdictions

Jurisdiction	Percent Share of Total Population ^{1,2}							
	Total Minority ³	Hispanic of Any Race	Non-Hispanic					
			Black Only	Asian Only	American Indian or Alaskan Native Only	Native Hawaiian / Pacific Islander Only	Some Other Race Only	Two or More Races ⁴
County of Los Angeles ⁵	73.1%	48.2%	8.0%	14.0%	0.2%	0.2%	0.3%	2.2%
City of Los Angeles ⁶	71.6%	48.7%	8.8%	11.4%	0.2%	0.2%	0.3%	2.1%
Central City North ⁷	82.7%	28.2%	13.4%	38.3%	0.4%	0.3%	0.2%	1.9%
Central City ⁷	70.3%	22.8%	19.8%	23.2%	0.3%	0.1%	0.7%	3.4%
Southeast Los Angeles ⁷	99.1%	80.3%	17.5%	0.6%	0.2%	0.1%	0.2%	0.3%
Florence-Firestone	99.4%	90.8%	7.8%	0.3%	0.1%	0.0%	0.1%	0.3%
Vernon	75.6%	68.3%	0.0%	7.3%	0.0%	0.0%	0.0%	0.0%
Huntington Park	98.7%	97.3%	0.3%	0.6%	0.0%	0.4%	0.0%	0.0%
Bell	94.7%	92.2%	1.1%	1.1%	0.0%	0.1%	0.0%	0.2%
Cudahy	97.3%	96.2%	0.3%	0.6%	0.1%	0.0%	0.1%	0.1%
South Gate	97.1%	95.5%	0.7%	0.6%	0.0%	0.1%	0.1%	0.1%

Jurisdiction	Percent Share of Total Population ^{1,2}							
	Total Minority ³	Hispanic of Any Race	Non-Hispanic					Two or More Races ⁴
			Black Only	Asian Only	American Indian or Alaskan Native Only	Native Hawaiian / Pacific Islander Only	Some Other Race Only	
Downey	84.4%	73.0%	3.6%	6.5%	0.1%	0.2%	0.2%	0.9%
Paramount	95.0%	80.4%	9.7%	2.9%	0.1%	0.9%	0.1%	0.8%
Bellflower	82.4%	54.2%	14.3%	11.7%	0.2%	0.2%	0.3%	1.4%
Cerritos	83.9%	12.6%	7.4%	60.5%	0.3%	0.2%	0.4%	2.4%
Artesia	80.5%	36.9%	2.1%	39.8%	0.0%	0.0%	0.1%	1.6%

Source: US Census Bureau, 2016; TAHA, 2021

Notes: ¹ The US Census Bureau defines “ethnicity” as either “Hispanic or Latino” or “Not Hispanic or Latino.” “Hispanic or Latino” is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. People who identify as Hispanic, Latino, or Spanish may be any race.

² Data is from US Census Bureau, 2011-2015 ACS 5-Year Estimates

³ A minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone. The table shows the percent of the total population that identified as a minority based on the 2011-2015 ACS 5-year estimates.

⁴ Two or more races includes subcategories: “Two races including some other race” and “Two race excluding some other race, and three or more races”.

⁵ LA County contain US Census Bureau block group information for the entire county

⁶ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups

⁷ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area.

4.1.2 EJ Affected Area

Table 4.3 characterizes the racial groups of the communities in the EJ Affected Area.

Table 4.3. Racial Characteristics of the Communities in the EJ Affected Area

Community	Percent Share of Total Population ^{1,2,3,4,5}						
	White Only	Black Only	American Indian or Alaskan Native Only	Asian Only	Native Hawaiian / Pacific Islander Only	Some Other Race Only	Two or More Races ⁶
County of Los Angeles ⁷	53.3%	8.3%	0.6%	14.1%	0.3%	19.6%	3.9%
City of Los Angeles ⁸	36.6%	15.2%	0.5%	17.9%	0.1%	26.6%	3.1%
Central City North ⁹	34.8%	17.1%	0.7%	31.8%	0.3%	12.1%	3.1%
Central City ⁹	38.4%	19.8%	0.6%	25.5%	0.1%	10.6%	5.1%
Southeast Los Angeles ⁹	35.8%	8.7%	0.4%	0.8%	0.0%	53.4%	0.9%
Florence-Firestone	43.2%	3.4%	0.2%	0.2%	0.1%	50.1%	2.7%
Vernon	36.6%	0.0%	0.0%	7.3%	0.0%	56.1%	0.0%
Huntington Park	68.2%	0.7%	0.4%	0.8%	0.5%	28.2%	1.2%

Community	Percent Share of Total Population ^{1,2,3,4,5}						
	White Only	Black Only	American Indian or Alaskan Native Only	Asian Only	Native Hawaiian / Pacific Islander Only	Some Other Race Only	Two or More Races ⁶
Bell	69.8%	0.6%	0.5%	0.2%	0.2%	27.5%	1.1%
Cudahy	72.4%	1.0%	0.4%	1.1%	0.0%	23.2%	1.8%
South Gate	56.0%	1.8%	0.2%	1.7%	0.3%	38.7%	1.4%
Downey	65.4%	1.0%	0.0%	12.0%	0.0%	21.0%	0.5%
Paramount	51.0%	10.3%	0.2%	3.3%	1.1%	30.8%	3.2%
Bellflower	42.6%	13.0%	0.6%	10.2%	0.3%	30.2%	3.0%
Cerritos	29.7%	9.0%	0.4%	50.2%	0.0%	6.8%	3.8%
Artesia	37.4%	2.0%	0.2%	45.5%	0.0%	11.3%	3.6%

Source: US Census Bureau, 2016; TAHA, 2021

Notes: ¹The US Census Bureau racial categories in the census questionnaire generally reflect a social definition of race recognized in this country and does not attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the race categories include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

²The US Census Bureau defines "ethnicity" as either "Hispanic or Latino" or "Not Hispanic or Latino." "Hispanic or Latino" is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. People who identify as Hispanic, Latino, or Spanish may be any race.

³Data is from US Census Bureau, 2011-2015 ACS 5-Year Estimates (Table B02001 RACE).

⁴This table includes race only and does not distinguish by ethnicity (Hispanic/Latino by origin). People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

⁵Percent Share of Total Population shows what percentage of a given community total population is a given race (Percent Share of Total Population = Race Population in an Affected Community ÷ Total Population in Same Affected Community).

⁶Two or more races includes subcategories: "Two races including some other race" and "Two race excluding some other race, and three or more races".

⁷LA County contain US Census Bureau block group information for the entire county

⁸City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities.

⁹Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area that intersect both the EJ Affected Area.

Table 4.4 shows the ethnicities of the communities in the EJ Affected Area. ³ Figure 4-1 illustrates the percent of the population identified as minority populations within the EJ Affected Area.

Based on the 2011-2015 ACS, Southeast Los Angeles (99.5 percent), Florence-Firestone (99.2 percent), Huntington Park (98.6 percent), Cudahy (96.6 percent), and Bell (96.3 percent) have the highest percent of minority populations. Central City (70.6 percent), Artesia (75.3 percent), Vernon (75.6 percent), Cerritos (79.2 percent) and Bellflower (79.6 percent) have the lowest percent of minority populations.

³ A community is considered an EJ community if the minority population in the affected community is at least 10 percent higher than the average of the minority population in LA County. The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent.

Table 4.4. Ethnicities of the Communities in the EJ Affected Area

Community	Percent Share of Total Population ^{1,2,3,4}							
	Total Minority ^{5,6}	Hispanic of Any Race	Non-Hispanic					Two or More Races ⁷
			Black Only	Asian Only	American Indian or Alaskan Native Only	Native Hawaiian / Pacific Islander Only	Some Other Race Only	
County of Los Angeles ⁸	73.1%	48.2%	8.0%	14.0%	0.2%	0.2%	0.3%	2.2%
City of Los Angeles ⁹	84.2%	50.1%	13.3%	18.1%	0.3%	0.3%	0.4%	1.8%
Central City North ¹⁰	82.0%	30.0%	17.0%	31.5%	0.5%	0.3%	0.3%	2.4%
Central City ¹⁰	70.6%	21.3%	19.5%	25.2%	0.3%	0.1%	0.8%	3.4%
Southeast Los Angeles ¹⁰	99.5%	90.2%	8.2%	0.8%	0.1%	0.0%	0.1%	0.1%
Florence-Firestone	99.2%	95.8%	3.1%	0.2%	0.0%	0.0%	0.0%	0.0%
Vernon	75.6%	68.3%	0.0%	7.3%	0.0%	0.0%	0.0%	0.0%
Huntington Park	98.6%	97.0%	0.4%	0.7%	0.0%	0.4%	0.1%	0.1%
Bell	96.3%	95.3%	0.6%	0.2%	0.0%	0.2%	0.0%	0.0%
Cudahy	96.6%	94.8%	0.4%	1.0%	0.1%	0.0%	0.1%	0.1%
South Gate	94.6%	91.0%	1.6%	1.6%	0.0%	0.2%	0.0%	0.1%
Downey	83.2%	69.6%	1.0%	12.0%	0.0%	0.0%	0.0%	0.5%
Paramount	94.6%	78.9%	10.1%	3.3%	0.0%	1.0%	0.1%	1.2%
Bellflower	79.6%	54.1%	12.8%	10.1%	0.4%	0.3%	0.2%	1.7%
Cerritos	79.2%	17.4%	9.0%	49.7%	0.2%	0.0%	0.3%	2.5%
Artesia	75.3%	26.1%	2.0%	45.2%	0.0%	0.0%	0.0%	2.0%

Source: US Census Bureau, 2016; TAHA, 2021

Notes: ¹ The US Census Bureau defines “ethnicity” as either “Hispanic or Latino” or “Not Hispanic or Latino.” “Hispanic or Latino” is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. People who identify as Hispanic, Latino, or Spanish may be any race.

² Data is from US Census Bureau, 2011-2015 ACS 5-Year Estimates

³ This table includes race only and does not distinguish by ethnicity (Hispanic/Latino by origin). People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

⁴ Percent Share of Total Population shows what percentage of a given community total population is a given ethnicity or minority (Percent Share of Total Population = Ethnic/Minority Population in an Affected Community ÷ Total Population in Same Affected Community).

⁵ A minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone. Percent of minority population is determined using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community.

⁶ A community is considered an EJ community if the minority population in the affected community is at least 10 percent higher than the average of the minority population in LA County. The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent.

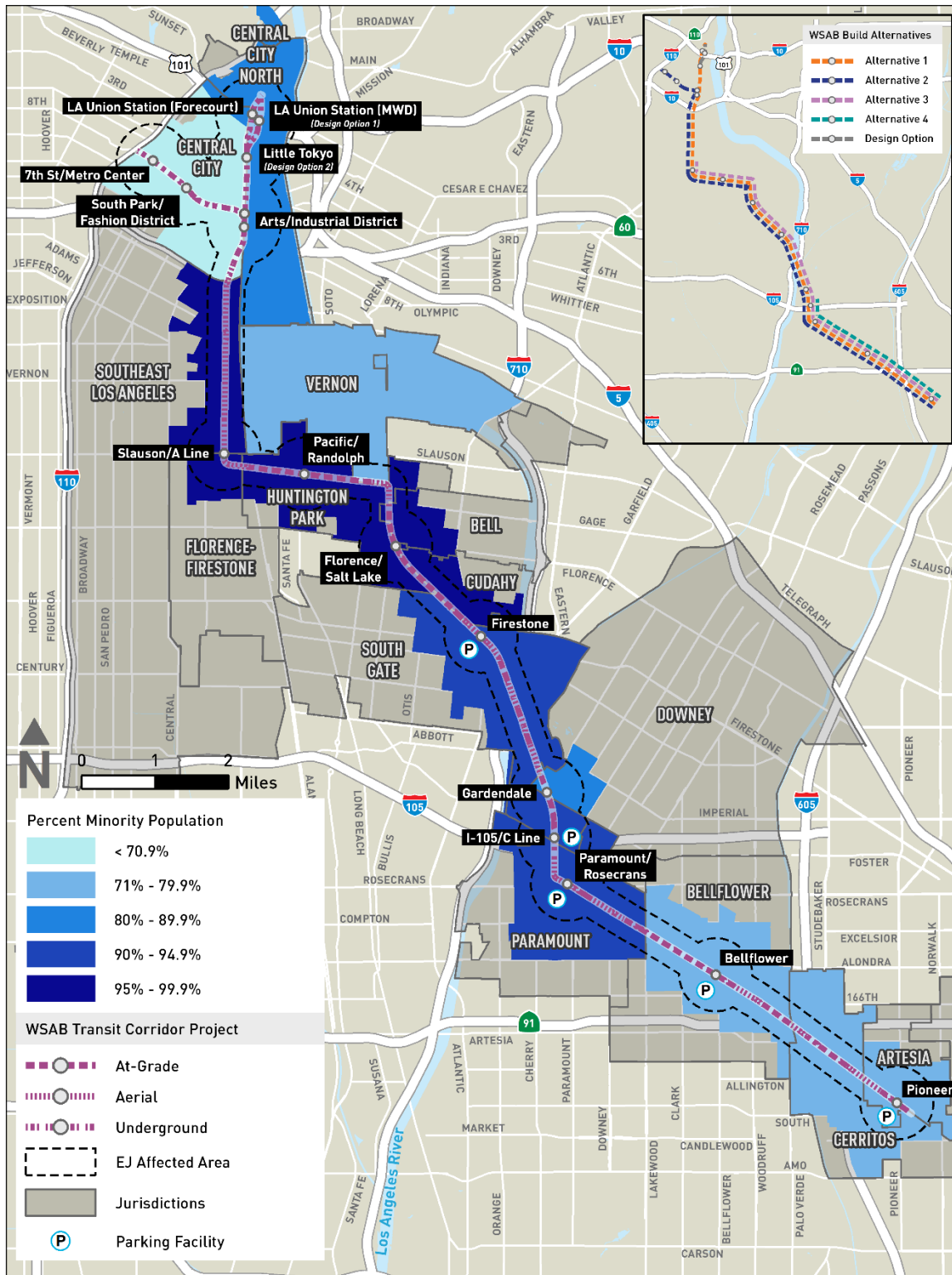
⁷ Two or more races includes subcategories: “Two races including some other race” and “Two race excluding some other race, and three or more races”.

⁸ LA County contain US Census Bureau block group information for the entire county

⁹ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities.

¹⁰ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area that intersect both the EJ Affected Area.

Figure 4-1. Percent of the Population identified as Minority Populations in the EJ Affected Area



Source: TAHA 2021

Note: ¹ Minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone.
² Percent of minority population is illustrated using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community.

4.2 Low-Income Population

4.2.1 Jurisdiction Wide

As previously discussed in Section 1.5.3.2, the HUD threshold of income limits is used to define “low-income”. The 2015 median household income for LA County (\$56,196) is used because it is the closest available data to the base year of 2017. A median household income 80 percent of LA County (approximately \$45,000) is used as the low-income threshold. A community is considered a low-income community if the percent low-income is at least 10 percent higher than the LA County average, or the median household income is less than 80 percent of the median household income for LA County.

Table 4.5 show the median household income and percent of low-income households for the jurisdictions. The jurisdictions with a percent low-income with a median household income less than 80 percent of LA County’s median household income are Central City North, Central City, Southeast Los Angeles, Florence-Firestone, Huntington Park, Bell, Cudahy, and South Gate.

Table 4.5. Median Household Income and Percent Low-Income of the Jurisdictions

Jurisdiction	Median Household Income ¹	Percent Low-Income ²
County of Los Angeles ³	\$56,196	41.3%
City of Los Angeles ⁴	\$50,205	46.1%
Central City North ⁵	\$40,583	55.6%
Central City ⁵	\$30,266	60.3%
Southeast Los Angeles ⁵	\$29,828	69.2%
Florence-Firestone	\$33,934	65.0%
Vernon	\$61,250	43.8%
Huntington Park	\$34,887	62.7%
Bell	\$37,269	60.2%
Cudahy	\$36,429	60.3%
South Gate	\$43,552	51.5%
Downey	\$62,897	34.5%
Paramount	\$45,792	49.2%
Bellflower	\$48,823	46.1%
Cerritos	\$60,749	21.6%
Artesia	\$90,321	36.1%

Source: Metro, 2021z

Notes:¹ Median Household Income in 2015 Inflation-Adjusted Dollars.

² Low-income is defined as households with income less than \$45,000, or approximately 80% of the 2015 median household income for Los Angeles County (\$56,196). (2015 ACS 5-Year Estimates Table B19001)

³ Percent Low-Income is the percent of total households within an affected community with a household income of less than \$45,000.

⁴ This analysis excludes block groups with zero total households. Only one block group in the Affected Area (Downey) contains zero total households (LA County Rancho Los Amigos Medical Center).

⁵ LA County contain US Census Bureau block group information for the entire county.

⁶ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities

4.2.2 EJ Affected Area

Table 4.6 show the median household income and percent of low-income households or the communities in the EJ Affected Area. Figure 4-2 illustrates the percent of the population identified as low-income within the EJ Affected Area. Affected communities in the EJ Affected Area identified as low-income communities include: Central City North, Central City, Southeast Los Angeles, Florence-Firestone, Huntington Park, Bell, and Cudahy.

Cerritos, Artesia, and Downey have the highest median household incomes (over \$70,000 median household income) and the lowest percent of low-income households (less than 36 percent of the population are low-income). Southeast Los Angeles has the lowest median household income (\$27,941) and the highest percent of low-income households (67.5 percent). Florence-Firestone (66.4 percent), Huntington Park (62.5 percent), Cudahy (61.9 percent), Central City (60.7 percent), Bell (59.5 percent), and Central City North (54.4 percent) also have high percent low-income households.

Table 4.6. Median Household Income and Percent Low-Income for the Communities in the EJ Affected Area

Community	Median Household Income ^{1,2}	Percent Low-Income ^{3,4}
County of Los Angeles ⁵	\$56,196	41.3%
City of Los Angeles ⁶	\$31,390	61.2%
Central City North⁷	\$44,551	54.4%
Central City⁷	\$29,623	60.7%
Southeast Los Angeles⁷	\$27,941	67.5%
Florence-Firestone	\$28,145	66.4%
Vernon	\$61,250	43.8%
Huntington Park	\$37,916	62.5%
Bell	\$34,958	59.5%
Cudahy	\$36,109	61.9%
South Gate	\$47,341	49.8%
Downey	\$76,149	20.1%
Paramount	\$53,940	43.6%
Bellflower	\$54,242	46.6%
Artesia	\$74,715	35.8%
Cerritos	\$88,730	24.1%

Source: Metro, 2021z

Note: **Bolded** entries identify the low-income communities

¹ Median Household Income in 2015 Inflation-Adjusted Dollars.

² Low-income is defined as households with income less than \$45,000, or approximately 80% of the 2015 median household income for Los Angeles County (\$56,196). (2015 ACS 5-Year Estimates Table B19001) , or if the percent low-income is at least 10 percent higher than the LA County average (51.3 percent)

³ Percent Low-Income is the percent of total households within an affected community with a household income of less than \$45,000.

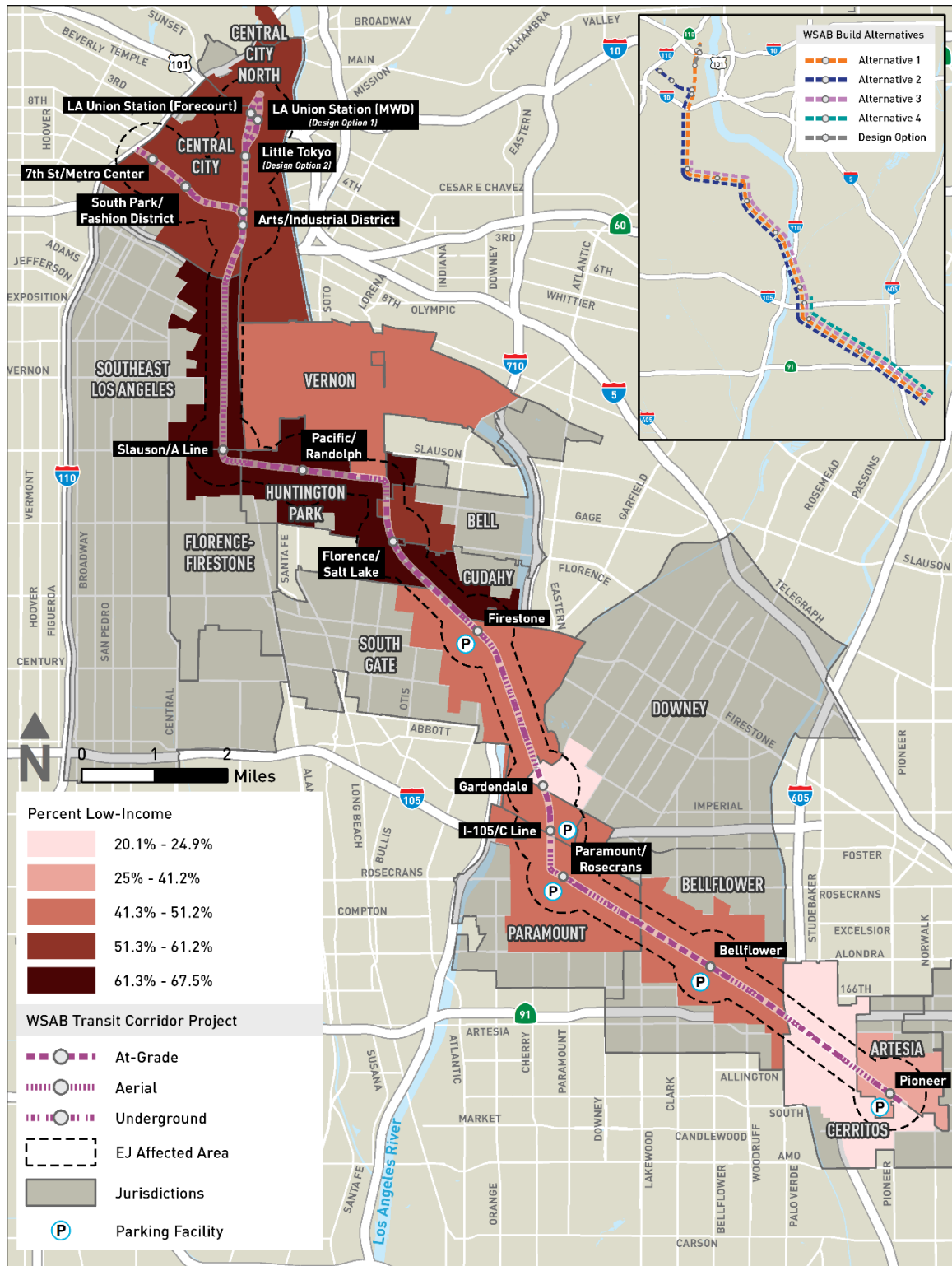
⁴ This analysis excludes block groups with zero total households. Only one block group in the Affected Area (Downey) contains zero total households (LA County Rancho Los Amigos Medical Center).

⁵ LA County contain US Census Bureau block group information for the entire county

⁶ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities.

⁷ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area that intersect both the EJ Affected Area.

Figure 4-2. Percent of the Population Identified as Low-Income in the EJ Affected Area



Source: TAHA 2021

Note: ¹ The percent of low-income is illustrated using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community

4.3 EJ Communities

An EJ community in an EJ analysis is often compared with the surrounding region to identify similarities, differences, and relationships between the EJ community and the region. A discussion of community resources and facilities of the affected communities are provided in the *West Santa Ana Branch Transit Corridor Project Final Parklands and Community Facilities Impact Analysis Report* (Metro 2021j) and *West Santa Ana Branch Transit Corridor Project Final Communities and Neighborhoods Impact Analysis Report* (Metro 2021i). The EJ Affected Area consists of the Cities of Los Angeles (including the Central City North, Central City, and Southeast Los Angeles communities), unincorporated Florence-Firestone community of LA County, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos.

4.3.1 Jurisdiction Wide

Table 4.7 provides a summary of the demographic and socioeconomic characteristics (minority population and low-income population by percent) of the jurisdictions as a whole in which the Build Alternatives would be located. Over 50 percent of the population for each jurisdiction are minorities. The jurisdictions with a percent minority population that is more than 10 percent higher than that for the County of Los Angeles are: Southeast Los Angeles, Florence-Firestone, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount and Cerritos. The jurisdictions with a percent low-income with a median household income less than 80 percent of LA County's median household income are Central City North, Central City, Southeast Los Angeles, Florence-Firestone, Huntington Park, Bell, Cudahy, and South Gate.⁴

Table 4.7. Summary of Percent Minority Population and Percent Low-Income of the Jurisdictions

Jurisdiction	Total Population	Percent Minority Population ^{1,2}	Median Household Income ³	Percent Low-Income ⁴
County of Los Angeles ⁵	10,038,388	73.1%	\$56,196	41.3%
City of Los Angeles	3,900,794	71.6%	\$50,205	46.1%
Central City North ⁶	24,178	82.7%	\$40,583	55.6%
Central City ⁶	34,894	70.3%	\$30,266	60.3%
Southeast Los Angeles ⁶	283,506	99.1%	\$29,828	69.2%
Florence-Firestone	63,177	99.4%	\$33,934	65.0%
Vernon ⁷	41	75.6%	\$61,250	43.8%
Huntington Park	59,003	98.7%	\$34,887	62.7%
Bell	35,998	94.7%	\$37,269	60.2%
Cudahy	24,138	97.3%	\$36,429	60.3%
South Gate	95,350	97.1%	\$43,552	51.5%
Downey	113,407	84.4%	\$62,897	34.5%
Paramount	55,023	95.0%	\$45,792	49.2%
Bellflower	77,756	82.4%	\$48,823	46.1%

⁴ The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent. LA County's median household income is \$56,196. A median household income 80 percent of LA County (approximately \$45,000) is used as the low-income threshold.

Jurisdiction	Total Population	Percent Minority Population ^{1,2}	Median Household Income ³	Percent Low-Income ⁴
Cerritos	49,701	83.9%	\$60,749	21.6%
Artesia	16,785	80.5%	\$90,321	36.1%

Source: US Census Bureau, 2016; Metro, 2021z

Notes:

¹A minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone. Percent of minority population is defined using 2011-2015 ACS 5-year estimates.

²A community is considered an EJ community if the minority population in the affected community is at least 10 percent higher than the average of the minority population in LA County. The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent.

³Median Household Income in 2015 Inflation-Adjusted Dollars.

⁴Low-income is defined as households with income less than \$45,000, or approximately 80% of the 2015 median household income for Los Angeles County (\$56,196). (2015 ACS 5-Year Estimates Table B19001)

⁵All data except for 'County of Los Angeles' comes from Census block groups that intersect both the EJ Affected Area and the affected communities. County of Los Angeles uses all block groups in LA County.

⁶Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area.

⁷City of Vernon is an exclusively industrial community with a small residential neighborhood located near the Vernon Avenue/Santa Fe Avenue intersection, towards the center of the community and surrounding City Hall.

4.3.2 EJ Affected Area

Table 4.8 provides a summary of the demographic and socioeconomic characteristics (minority population and low-income population by percent) of the communities in the EJ Affected Area. Based on the CEQ *Environmental Justice Guidance under the National Environmental Policy Act* EJ community criteria, each identified community in the EJ Affected Area is considered an EJ community.

Table 4.8. Summary of Percent Minority Population and Percent Low-Income of the EJ Affected Area

Affected Community	Percent Minority Population ^{1,2}	Median Household Income ³	Percent Low-Income ⁴
County of Los Angeles ⁵	73.1%	\$56,196	41.3%
City of Los Angeles ⁶	84.2%	\$31,390	61.2%
Central City North ⁷	82.0%	\$44,551	54.4%
Central City ⁷	70.6%	\$29,623	60.7%
Southeast Los Angeles ⁷	99.5%	\$27,941	67.5%
Florence-Firestone	99.2%	\$28,145	66.4%
Vernon	75.6%	\$61,250	43.8%
Huntington Park	98.6%	\$37,916	62.5%
Bell	96.3%	\$34,958	59.5%
Cudahy	96.6%	\$36,109	61.9%
South Gate	94.6%	\$47,341	49.8%
Downey	83.2%	\$76,149	20.1%
Paramount	94.6%	\$53,940	43.6%
Bellflower	79.6%	\$54,242	46.6%

Affected Community	Percent Minority Population ^{1,2}	Median Household Income ³	Percent Low-Income ⁴
Cerritos	79.2%	\$74,715	35.8%
Artesia	75.3%	\$88,730	24.1%

Source: US Census Bureau, 2016; Metro, 2021z

Notes: ¹ A minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone. Percent of minority population is defined using 2011-2015 ACS 5-year estimates.

² A community is considered an EJ community if the minority population in the affected community is at least 10 percent higher than the average of the minority population in LA County. The percent of minority population for LA County is 73.1 percent; therefore, 10 percent higher is 83.1 percent.

³ Median Household Income in 2015 Inflation-Adjusted Dollars.

⁴ Low-income is defined as households with income less than \$45,000, or approximately 80% of the 2015 median household income for Los Angeles County (\$56,196). (2015 ACS 5-Year Estimates Table B19001)

⁵ LA County contain US Census Bureau block group information for the entire county.

⁶ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities.

⁷ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area that intersect both the EJ Affected Area.

Based on the CEQ *Environmental Justice Guidance under the National Environmental Policy Act* EJ community criteria discussed in Section 1.5.3 and data provided in Table 4.7 and Table 4.8, each jurisdiction affected by the Project and each community located in the EJ Affected Area is considered an EJ community.

Communities with the highest percent of minorities

- Southeast Los Angeles
- Florence-Firestone
- Huntington Park
- Cudahy
- Bell

Communities with the highest percent of low-income households

- Southeast Los Angeles
- Florence-Firestone
- Huntington Park
- Cudahy
- Central City

Communities with the lowest percent of minorities (most non-minority population)

- Central City
- Artesia
- Vernon
- Cerritos
- Bellflower

Communities with the lowest percent of low-income households (highest median income/lowest percent low-income)

- Downey
- Cerritos
- Artesia
- Paramount
- Vernon

The following describes the socioeconomic characteristics of the jurisdictions as a whole.

Central City North, City of Los Angeles. The Central City North community in the City of Los Angeles has a population of approximately 24,178 persons. With an area of approximately 3.2 square miles, the population density is approximately 7,556 persons per square mile. Land uses in the Central City North community in the EJ Affected Area consist of primarily industrial and institutional/public facility uses, with industrial, institutional/public facility uses, and limited commercial uses adjacent to both sides of the proposed alignment

(Alternative 1). Residential uses along and adjacent to the proposed alignment is limited and identified on both sides of the proposed alignment in the Little Tokyo neighborhood (near the Little Tokyo Station [Design Option 2]) and sporadically on the east side of the proposed alignment, south of Washington Avenue.

The population is 87 percent minority, and approximately 55.6 percent of the community's population is considered low-income. The percent of minority and low-income population for the Central City North community exceeds the LA County and City of Los Angeles. The Central City North community and the population in the EJ Affected Area meets the criteria to be considered an EJ community.

Central City, City of Los Angeles. The Central City community in the City of Los Angeles has a population of approximately 34,894 persons. With an area of approximately 3.5 square miles, the population density is approximately 9,970 persons per square mile. Land uses in the Central City community in the EJ Affected Area consist of primarily commercial and industrial uses, with these uses adjacent to both sides of the proposed alignment (Alternative 1 and 2). Residential uses along and adjacent to the proposed alignment is limited and identified primarily in the 7th St/Metro Center Station area.

The population is 70.3 percent minority, and approximately 60.3 percent of the community's population is considered low-income. The percent of minority and low-income population for the Central City community exceeds the LA County and City of Los Angeles. The Central City community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

Southeast Los Angeles, City of Los Angeles. The Southeast Los Angeles community in the City of Los Angeles has a population of approximately 283,506 persons. With an area of approximately 15.4 square miles, the population density is approximately 18,409 persons per square mile. Land uses in the Southeast Los Angeles community in the EJ Affected Area consist of primarily industrial and residential uses, with residential uses located along the west side of the proposed alignment (Alternatives 1, 2, and 3) along Long Beach Avenue from 27th Street south to Slauson Avenue. Residential uses are also located adjacent to the alignment on the east side of the proposed alignment south of 51st E. Street.

The population is 99.1 percent minority, and approximately 69.2 percent of the community's population is considered low-income. The percent of minority and low-income population for the Southeast Los Angeles community exceeds LA County and City of Los Angeles. The Southeast Los Angeles community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

Florence-Firestone, Unincorporated County of Los Angeles. The Florence-Firestone community has a population of approximately 63,177 persons. With an area of approximately 3.6 square miles, the population density is approximately 17,549 persons per square mile. Land uses in the Florence-Firestone community within the Affected Area consist of primarily residential uses with limited industrial uses. The industrial uses are located adjacent to the Slauson/A Line Station and proposed alignment (Alternatives 1 and 2). The residential uses are located south and east of the abutting industrial uses.

The population is 99.2 percent minority, and approximately 67.5 percent of the community's population is considered low-income. The percent of minority and low-income population for

the Florence-Firestone community exceeds LA County. The Florence-Firestone community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Vernon. The City of Vernon has a population of approximately 41 persons. With an area of approximately 5.2 square miles, the population density is approximately 8 persons per square mile. Land uses in the Vernon community within the Affected Area consist of primarily industrial uses and no residential uses are located along the proposed alignment. Vernon is an exclusively industrial community with a few scattered commercial businesses. A small residential neighborhood is located near the Vernon Avenue/Santa Fe Avenue intersection, towards the center of the community and surrounding City Hall.

The population is 75.6 percent minority, and approximately 43.8 percent of the community's population is considered low-income. The Vernon community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Huntington Park. The City of Huntington Park has a population of approximately 59,003 persons. With an area of approximately 3.0 square miles, the population density is approximately 19,667 persons per square mile. Land uses in the Huntington Park community within the Affected Area consist of a mix of residential, industrial, commercial, and institutional/park facilities uses. Land uses adjacent to the alignment (Alternatives 1, 2, and 3) along Randolph include industrial, commercial, and residential land uses on both sides of the track. South of Gage Avenue to Florence Avenue, the residential uses are limited, and Salt Lake Park is located west of the proposed alignment. South of Florence Avenue to Santa Ana Street, residential uses are located adjacent to the proposed alignment on the west side.

The population is 98.6 percent minority, and approximately 62.5 percent of the community's population is considered low-income. The percent of minority and low-income population for the Huntington Park community exceeds LA County. The Huntington Park community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Bell. The City of Bell has a population of approximately 35,998 persons. With an area of approximately 2.6 square miles, the population density is approximately 13,845 persons per square mile. Land uses in the Bell community within the EJ Affected Area consist of industrial, institutional/public facility uses, commercial, and residential uses. The residential uses are adjacent to the east side of the proposed alignment (Alternatives 1, 2, and 3), between Gage Avenue and Florence Avenue.

The population is 96.3 percent minority, and approximately 59.5 percent of the community's population is considered low-income. The percent of minority and low-income population for the Bell community exceeds LA County. The Bell community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Cudahy. The City of Cudahy has a population of approximately 24,138 persons. With an area of approximately 1.2 square miles, the population density is approximately 20,115 persons per square mile. Land uses in the Cudahy community within the Affected Area consist of primarily industrial and residential uses. The residential uses are adjacent to the east side of the proposed alignment (Alternatives 1, 2, and 3), between Florence Avenue and Santa Ana Street. Industrial uses are adjacent to the proposed alignment south of Santa Ana Street to Patata Street.

The population is 96.6 percent minority, and approximately 61.9 percent of the community's population is considered low-income. The percent of minority and low-income population for the Cudahy community exceeds LA County. The Cudahy community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of South Gate. The City of South Gate has a population of approximately 95,350 persons. With an area of approximately 7.5 square miles, the population density is approximately 12,713 persons per square mile. Land uses in the South Gate community within the Affected Area consist of a mix of industrial, commercial, institutional/public facilities, and residential uses. Industrial uses and institutional/public facilities uses are located along both sides of the proposed alignment (Alternatives 1, 2, and 3). Residential uses adjacent and along the proposed alignment are limited and buffered by industrial and commercial uses.

The population is 94.6 percent minority, and approximately 49.8 percent of the community's population is considered low-income. The percent of minority and low-income population for the South Gate community exceeds LA County. The South Gate community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Downey. The City of Downey has a population of approximately 113,407 persons. With an area of approximately 12.5 square miles, the population density is approximately 9,073 persons per square mile. Land uses in the Downey community within the Affected Area consist of a mix of industrial, commercial, institutional/public facilities, and residential uses. The industrial and institutional/public facilities uses are adjacent to the proposed alignment (Alternatives 1, 2, 3, and 4). Residential uses in the Downey community within the Affected Area are not adjacent to the proposed alignment in the Downey.

The population is 83.2 percent minority, and approximately 20.1 percent of the community's population is considered low-income. The percent of minority population for the Downey community exceeds LA County. The Downey community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Paramount. The City of Paramount has a population of approximately 55,023 persons. With an area of approximately 4.8 square miles, the population density is approximately 11,463 persons per square mile. Land uses in the Paramount community within the EJ Affected Area consist of a mix of industrial, commercial, institutional/public facilities, and residential uses. Residential uses are located on both sides of the proposed alignment (Alternatives 1, 2, 3, and 4) south of the I-105 freeway to Rosecrans Avenue, on the west side of the proposed alignment south of Rosecrans Avenue. Industrial, commercial, and institutional/public facilities uses are also located adjacent to both sides of the proposed alignment south of Rosecrans Avenue.

The population is 94.6 percent minority, and approximately 43.6 percent of the community's population is considered low-income. The percent of minority and low-income population for the Paramount community exceeds LA County. The Paramount community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Bellflower. The City of Bellflower has a population of approximately 77,756 persons. With an area of approximately 6.1 square miles, this community's population density is approximately 12,747 persons per square mile. Land uses in the Bellflower community within the Affected Area consist of a mix of industrial, commercial, institutional/public facilities, and residential uses. Residential uses are located on both sides of the proposed

alignment (Alternatives 1, 2, 3, and 4) south of the I-105 freeway to Rosecrans Avenue, and from Virginia Avenue south to the I-605 freeway. Commercial and institutional/public facilities uses are also located adjacent to both sides of the proposed alignment in Bellflower.

The population is 79.6 percent minority, and approximately 46.6 percent of the community's population is considered low-income. The percent of minority and low-income population for the Bellflower community exceeds LA County. The Bellflower community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Cerritos. The City of Cerritos has a population of approximately 49,701 persons. With an area of approximately 8.9 square miles, this community's population density is approximately 5,584 persons per square mile. Land uses in the Cerritos community within the Affected Area consist of a mix of commercial, institutional/public facilities, open space/recreational, and residential uses. Residential uses are located on the north side of the proposed alignment (Alternatives 1, 2, 3, and 4) west of the intersection of Gridley Avenue and 183rd Street. Commercial uses are also predominately adjacent to the southern side of the proposed alignment.

The population is 79.2 percent minority, and approximately 35.8 percent of the community's population is considered low-income. The percent of minority population for the Cerritos community exceeds LA County. The Cerritos community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

City of Artesia. The City of Artesia has a population of approximately 16,785 persons. With an area of approximately 1.6 square miles, this community's population density is approximately 10,490 persons per square mile. Land uses in the Artesia community within the Affected Area consist of a mix of commercial, institutional/public facilities, open space/recreational, and residential uses. Residential uses are located on both sides of the proposed alignment (Alternatives 1, 2, 3, and 4) east of the intersection of Gridley Avenue and 183rd Street south to Pioneer Boulevard. Both commercial and residential uses are located around the Pioneer Station.

The population is 75.3 percent minority, and approximately 24.1 percent of the community's population is considered low-income. The percent of minority population for the Artesia community exceeds LA County. The Artesia community and population in the EJ Affected Area meets the criteria to be considered an EJ community.

4.4 Distribution of EJ Populations

The distribution of the EJ populations presented in this section is the number of minority/low-income persons within an affected community as a proportion of the total minority/low-income persons within the entire EJ Affected Area. The distribution shows the percentage of the EJ Affected Area's total minority or low-income population within a given affected community and is provided in Table 4.9. The highest percentage of population identified as minority or low-income are located in Central City, Southeast Los Angeles, Huntington Park, Paramount, and Bellflower. Figure 4-3 and Figure 4-4 show the distribution of the populations identified as a minority and low-income in the EJ Affected Area.

Table 4.9. Distribution of EJ Populations within the EJ Affected Area

Affected Community	Minority Distribution Percent ^{1,2}	Low-Income Distribution Percent ^{1,3}
City of Los Angeles ⁴	26.83%	41.15%
Central City North ⁵	6.68%	5.44%
Central City ⁵	8.47%	26.43%
Southeast Los Angeles ⁵	11.68%	9.29%
Florence-Firestone	3.34%	2.86%
Vernon	0.01%	0.01%
Huntington Park	19.63%	17.16%
Bell	4.80%	4.18%
Cudahy	5.11%	4.48%
South Gate	9.25%	7.07%
Downey	0.57%	0.19%
Paramount	12.05%	6.89%
Bellflower	11.48%	11.56%
Artesia	3.38%	2.59%
Cerritos	3.55%	1.84%

Source: U.S. Census Bureau 2016; TAHA 2021

Notes: Does not equal to 100 percent due to rounding.

¹ Distribution is the number of minority/low-income persons within an affected community as a proportion of (divided by) the total minority/low-income persons within the EJ Affected Area. Distribution shows what percentage of the EJ Affected Area's total minority or low-income population are within a given affected community. (Distribution = Minority or Low-Income Population in an Affected Community ÷ Total Minority or Low-Income Population in the entire EJ Affected Area).

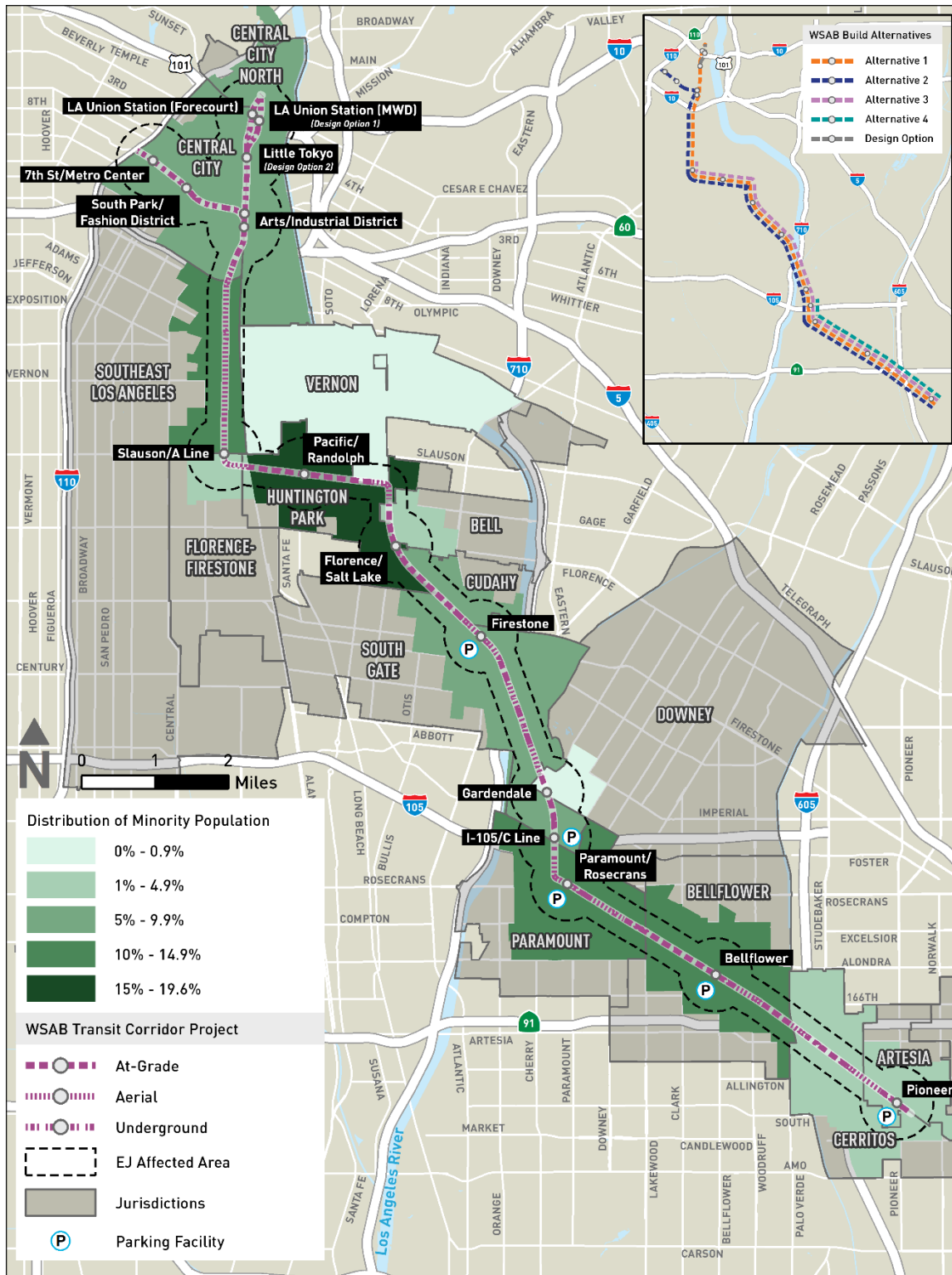
² A minority is defined as an individual who identifies as any race or ethnicity except for non-Hispanic/Latino White Alone. Percent of minority population is illustrated using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community.

³ Low-income is defined as households with income less than \$45,000, or approximately 80 percent of the 2015 median household income for Los Angeles County. Percent Low-Income is the percent of total households within an affected community with a household income of less than \$45,000.

⁴ City of Los Angeles total presented only contains Central City North, Central City, and Southeast Los Angeles US Census Bureau block groups that intersect both the EJ Affected Area and the affected communities.

⁵ Central City North, Central City, and Southeast Los Angeles data comes from US Census Block Groups that fall within each community plan area and intersects the EJ Affected Area.

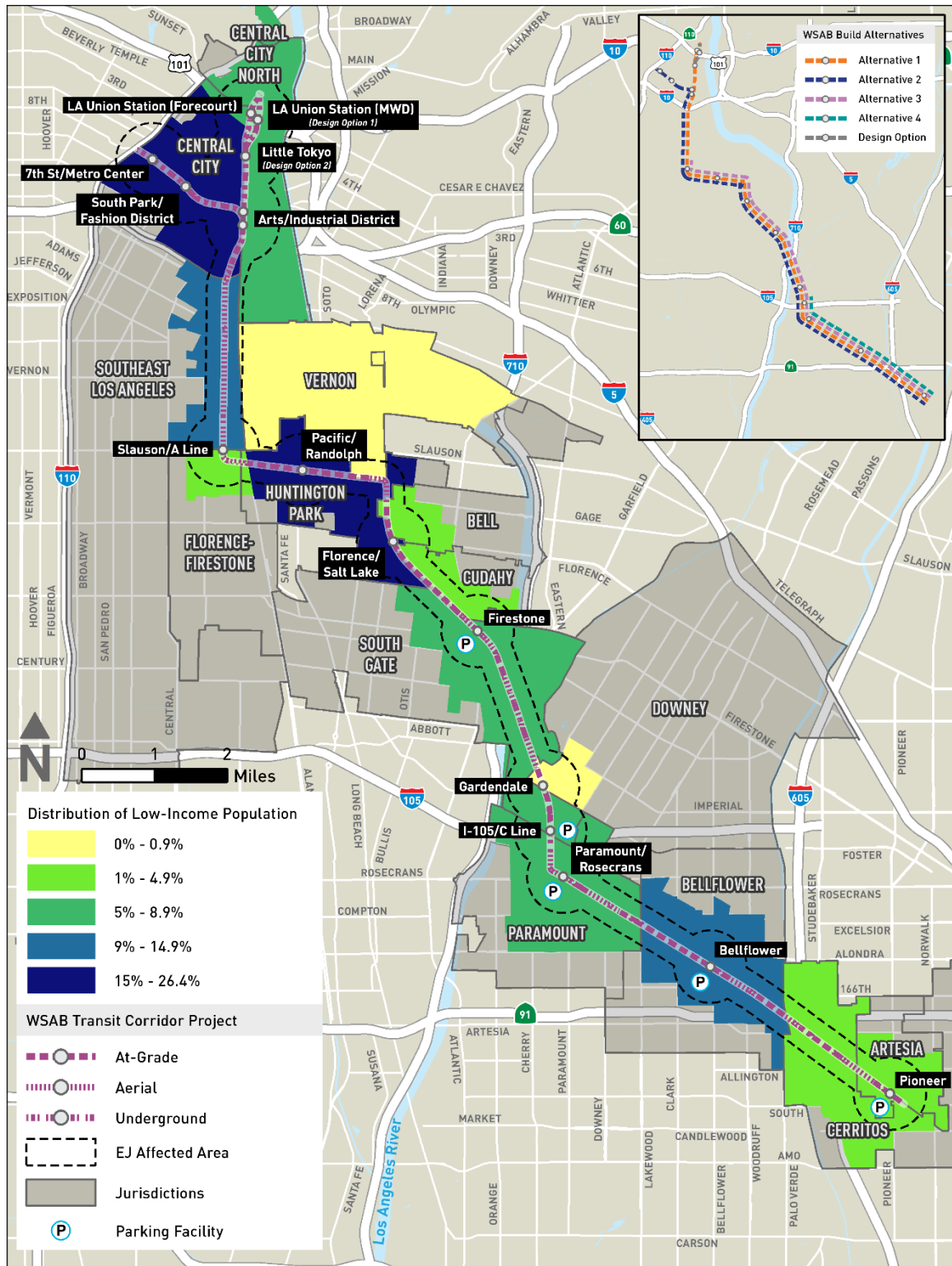
Figure 4-3. Distribution of the Population Identified as Minority Populations in the EJ Affected Area



Source: Metro 2021z

Note: ¹ The percent of low-income is illustrated using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community.

Figure 4-4. Distribution of the Population Identified as Low-Income Populations in the EJ Affected Area



Source: TAHA 2021

Note: ¹ The percent of low-income is illustrated using 2011-2015 ACS 5-year estimates for the Census Block Groups that intersect both the EJ Affected Area and affected community.

4.5 Public Participation

FTA published the NOI in the Federal Register on July 26, 2017 to initiate the EIS process for the Project, which provided scoping meeting information, contact information, and Project information.⁵ Prior to Federal Register publication, Metro issued NOP pursuant to CEQA on May 25, 2017, informing the public of its intent to prepare a combined Draft EIS/EIR for the Project and notify interested agencies and parties of public scoping meetings. A revised NOP was issued on June 14, 2017, to inform the public of the extension of the comment period from July 7, 2017, to August 4, 2017. A second revised NOP was issued on July 11, 2018, informing the public of the Metro Board decision to eliminate some of the northern alignment alternatives considered in the May 2017 NOP and to carry forward two modified northern alignments.

A series of public scoping meetings, and agency, stakeholder, and community outreach meetings have been conducted since the May 24, 2017 filing of the NOP. The scope of the Draft EIS/EIR, including the goals and objectives, Project area, project description, and the environmental impacts to be evaluated were presented at the public scoping meetings. All meetings were held in Americans with Disabilities Act (ADA)-compliant facilities and language translation services (Spanish, Korean, and Japanese) were provided. For those unable to attend the meetings, a video recording of the formal presentations was made available to the public within one week of the conclusion of the meeting series.

A public participation strategy was developed to encourage active participation and solicit input from groups that may be affected by and/or benefit from the Project. The purposes of the public participation strategy are to facilitate and document the lead agencies' structured interaction with the public and other agencies and to inform the public and other agencies of how public participation will be accomplished. The goal of public participation is to promote an efficient and streamlined process and good project management through coordination, scheduling, and early resolution of issues with the lead, and cooperating and participating agencies. The public participation strategy included traditional and non-traditional methods as recommended in FTA Circular 4703.1 and USDOT environmental justice guidance.

Public outreach activities included several methods of outreach to provide information to the community and solicit feedback. Outreach methods included mailing lists, a project hotline, dedicated Project email and website, and a Project Facebook page. Notifications for public meetings were made available through various communications tools, including printed materials, public signage, and social media (i.e., Metro and local city websites, Facebook, Twitter, and local transit-oriented blogs), project website, and briefings. Public media (i.e., newspapers, "take ones", direct mail notice) was published in English, Spanish, Korean, and Japanese languages based on the ethnic makeup of the affected communities and requested languages.

Direct Mail Notices – Direct mail notices in English, Spanish, and Japanese were mailed to residents, businesses, property owners, community organizations, religious organizations, libraries, educational institutions, chambers of commerce, commissions, city staff, and elected officials in the Study Area.

⁵ *Federal Register*. Vol. 82, No. 121, June 26, 2017.

“Take One’s” – Project pamphlets were developed and provided at public meetings and throughout the Study Area at city halls, libraries, community centers, chambers of commerce, and elected district offices. The pamphlets included a project map, project background, and meeting details.

Facebook – A Facebook page for the Project was created and provides a central online place for project information/overview and meeting details. Photos and videos of public outreach, community events and other public meetings are posted. Events are posted for convenient updates the public. Comments posted on the Facebook page were monitored and commenters were encouraged to provide official comments via e-mail, mail, or through the Project website.

For more information regarding the public outreach and consultation process see Chapter 4, Public Outreach and Agency Consultation of the Draft EIS/EIR.

5 ENVIRONMENTAL IMPACTS/ENVIRONMENTAL CONSEQUENCES

5.1 No Build Alternative

The No Build Alternative includes regional projects identified in SCAG 2016-2040 RTP/SCS, Metro 2009 LRTP, and Measure M. Under the No Build Alternative, the Build Alternatives would not be developed. However, several infrastructure and transportation-related projects located within the Study Area (i.e., the area within two miles of the Project corridor) as described in Table 2.1 would be implemented and built. These projects include the Metro East-West Line/Regional Connector/Eastside Phase 2, CA HSR, Metro North-South Line/Regional Connector, I-710 South Corridor, I-105 Express Lane, I-605 Corridor “Hot Spot” improvements, and improvements to the Metro bus system and local municipality bus systems. The No Build Alternative also includes local transportation-related projects in the affected jurisdictions, such as the Link US project, Active Transportation Rail to Rail/River Corridor, LAUS Forecourt and Esplanade Improvement, I-710 Corridor Bike Path, and the Cesar E. Chavez Bus Stop Improvements project.

The No Build Alternative establishes a baseline for comparison to evaluate potential traffic effects of the other alternatives. Daily vehicle traffic within the project study area is projected to increase under future baseline conditions and under the No Build Alternative compared to existing conditions. Community mobility would be expected to deteriorate with the increased regional traffic congestion anticipated between now and 2040, which could result in a long-term reduction in access to public transportation, businesses, and community resources, as well as reduced emergency vehicle access. The No Build Alternative would not achieve the potential transportation benefits from the Build Alternative, such as improved circulation, reliability, and access. The No Build Alternative would not provide the positive benefits of increased mobility and connectivity of the Gateway Cities region to the Metro rail system.⁶

5.2 Build Alternatives, Design Options, MSF Site Options

As discussed in Section 4, all the affected jurisdictions are considered EJ communities with EJ populations. The areas of each jurisdiction within the EJ Affected Area are identified to contain EJ populations/communities. This analysis focuses on the immediate adverse effects to the EJ population located within the Affected Area (0.25 mile of the alignments, parking facilities, and MSF site options, and 0.5 mile of the station areas).

The following environmental topics would not result in adverse effects to the Affected Area. Therefore, these environmental topics would not result in a disproportionately high and adverse effect to EJ communities and are not further discussed:

- Transportation (transit, active transportation, off-street parking)
- Land Use (operations; land uses compatibility, regional plans)
- Communities and Neighborhoods (operations)

⁶ The Gateway Cities region of Los Angeles County includes the Cities of Artesia, Avalon, Bell, Bellflower, Bell Gardens, Cerritos, Commerce, Compton, Cudahy, Downey, Hawaiian Gardens, Huntington Park, La Habra Heights, Lakewood, La Mirada, Long Beach, Lynwood, Maywood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Walnut Park, and Whittier, as well as some unincorporated areas of Southeast Los Angeles County.

- Visual and Aesthetics (operations visual character and quality of scenic resources; construction)
- Air Quality (operations; construction odors, construction localized pollutant emissions)
- Greenhouse Gas Emissions
- Ecosystems and Biological Resources (operations, special-status species, jurisdictional resources, protected trees)
- Geotechnical, Subsurface, Seismic Hazards
- Hazards and Hazardous Materials
- Water Resources
- Energy
- Electromagnetic Fields
- Archaeological, Historical, and Paleontological Resources
- Traditional Cultural Properties/Tribal Cultural Resources
- Parklands and Community Facilities (operational access and function of parklands, community facilities)
- Economic and Fiscal Impacts
- Safety and Security
- Section 4(f) Resources

The EJ Affected Area encompasses predominantly EJ communities. As such, the environmental effects of the Build Alternatives, design options, and MSF site options would be predominantly borne by EJ communities. This analysis focuses on whether construction of the Build Alternatives, design options, and MSF site options would result in disproportionately high and adverse effects to EJ populations identified within the EJ Affected Area. The analysis compares areas with high concentrations of EJ populations (e.g., Central City, Southeast Los Angeles, Huntington Park, Paramount, and Bellflower) with comparable non-EJ populations in the EJ Affected Area (e.g. Cerritos). As further discussed below, these types of environmental effects occur across the Metro system corridor in EJ communities and non-EJ communities. Mitigation measures would be implemented with similar type and quality throughout the EJ Affected Area.

As demonstrated for each environmental topic discussed herein, the location and distribution of the adverse effects throughout the project corridor differ for each Build Alternative. A majority of the adverse effects would occur in Paramount (for Alternatives 1, 2, 3, and 4), followed by Central City (for Alternative 2 only), South Gate (for Alternatives 1, 2, and 3), and Huntington Park (for Alternatives 1, 2, and 3).

A review of Metro LRT projects constructed and operated in Los Angeles County was conducted to further assess the potential for disproportionately high and adverse effects. This review of the Metro LRT system identified several LRT systems comparable to the Project based on similar technologies, alignment types, and service areas. These include the Metro E (Expo) Line, L (Gold) Line, and C (Green) Line. These LRT systems are adjacent to communities that contain

both EJ and non-EJ populations. Based on an analysis of current census data, the non-EJ populations along these LRT systems include^{7, 8}:

- **Metro E (Expo) Line:** Santa Monica, West Los Angeles, Rancho Park, Century City, Cheviot Hills, Beverlywood, Pico-Robertson
- **Metro L (Gold) Line:** Elysian Park, Pasadena
- **Metro C (Green) Line:** El Segundo, Manhattan Beach, Hawthorne, Redondo Beach

The non -EJ communities identified within these Metro LRT system corridors experienced environmental effects for construction and operations similar to those identified for the EJ communities in the EJ Affected Area of the Build Alternatives, design options, and MSF site options. Across the Metro projects, adverse effects and mitigation in these non-EJ communities were addressed in a similar manner as EJ communities. Metro has implemented each LRT system guided by established design guidelines as well as through the requirements of project-specific environmental documents. The review of Metro LRT projects indicates that mitigation measures for the Build Alternatives would be implemented throughout the EJ Affected Area with similar type and quality as other Metro projects.

Furthermore, as demonstrated in the following analysis, the implementation of mitigation (Section 8) and off-setting benefits (Section 5.2.7.1) are taken into consideration in determining if a disproportionately high and adverse effect would occur in an EJ community in the EJ Affected Area. Off-setting benefits of the Build Alternatives to the EJ communities include the provision of an alternative mode of transportation; increased mobility; increased transit access to areas that have been previously underserved by regional transit; improved connectivity of the EJ populations to places of employment, community facilities, and education; air quality improvements; and economic and fiscal benefits to the EJ communities.

5.2.1 Transportation

5.2.1.1 Traffic Operations

Summary of Effects

The vehicle delay and level of service (LOS) that would occur with implementation of the Build Alternatives, design options, and MSF site options were compared to the No Build Alternative, and impacts were assessed on a variety of criteria including, but not limited to, operational impacts due to new crossings, roadway network changes, and freight track realignment. The analysis considered impacts to each element of the transportation system: streets and intersections, freight tracks, transit, bicycle and pedestrian facilities and parking. Adverse effects on the Affected Area may occur in either the AM peak period, the PM peak period, or during both peak periods. Alternatives 1, 2, 3, and Design Options 1 and 2, would have 20 locations with adverse effects on traffic operations related to intersection level-of-service delays caused by at-grade rail crossings, increased traffic, and lane closures. The Paramount and Bellflower MSF site options would not adversely affect roadway intersections:

- 2 intersections on Florence Avenue/California Avenue in Huntington Park and Cudahy (Alternatives 1,2, 3, Design Options 1 and 2)

⁷ The communities identified contain census tracts with non-EJ populations within 0.25 mile of the Metro E (Expo) Line, L (Gold) Line, and C (Green) Line alignments and 0.5 mile of the corresponding LRT stations.

⁸ Metro Countywide Planning and Development Staff, May 2021

- 8 intersections along Randolph Street and Pacific Boulevard in Huntington Park (Alternatives 1,2, 3, Design Options 1 and 2)
- 3 intersections in Bell (Alternatives 1,2, 3, Design Options 1 and 2)
- 2 intersections in South Gate (Alternatives 1,2, 3, Design Options 1 and 2)
- 3 intersections in Bellflower (Alternatives 1,2, 3, 4 Design Options 1 and 2)
- 2 intersections in Cerritos (Alternatives 1,2, 3, 4 Design Options 1 and 2)

Implementation of Mitigation Measures TRA-1 through TRA-20, which are specific intersection improvements and a Transportation Management Plan would reduce adverse effects at the intersections. Even with implementation of Mitigation Measures TRA-1 through TRA-20, adverse effects at 12 intersections located in Huntington Park and Bell would remain for Alternatives 1, 2, and 3 and the design options:

- Randolph Street / Alameda Street (West), Huntington Park
- Randolph Street / Santa Fe Avenue, Huntington Park
- Randolph Street / Malabar Street, Huntington Park
- Pacific Boulevard / Clarendon Avenue, Huntington Park
- Randolph Street / Pacific Boulevard, Huntington Park
- Randolph Street / Seville Avenue, Huntington Park
- Randolph Street / Miles Avenue, Huntington Park
- Randolph Street / State Street, Huntington Park
- Gage Avenue / Salt Lake Avenue (West), Huntington Park
- Florence Avenue / California Avenue (West), Huntington Park
- Florence Avenue / California Avenue (East), Huntington Park
- Gage Avenue / California Avenue, Bell

Environmental Justice Analysis

Given that there are EJ populations across the corridor, the traffic effects of the Build Alternatives would be predominantly borne by EJ communities. The traffic effects would occur in both EJ communities and areas with comparable non-EJ populations. Adverse effects after mitigation occur in Huntington Park, which has the highest concentration of EJ populations and Bell which has the lowest concentration of EJ populations and a higher concentration of non-EJ population compared to Huntington Park.

Under Alternatives 1, 2, and 3 and the design options, after mitigation the number of intersections with adverse effects and increased vehicle delays are the highest in Huntington Park (11 intersections, with 7 of those intersections along Randolph Street). The number of intersections that would be adversely affected after mitigation in Huntington Park (11 intersections) would be appreciably more than in Bell (1 intersection). However, as shown in Table 3.14, Alternatives 1, 2, and 3 would result in a benefit and reduce intersection delay at 11 other intersections either in the AM or PM peak hour across Huntington Park. Six intersections with reduced delays are located on Randolph Street.

Metro will coordinate with applicable local cities and agencies and feasible mitigation measures would be similarly implemented along the project corridor as necessary for each Build Alternative and the design options, regardless of the composition of the population. Potential mitigation measures for each affected intersection generally included three types of modifications: signaling intersections that are currently stop controlled; adding lanes (right, through, and/or left); and extending turn bays (right or left). In developing the mitigation options, consideration was given to

the efficacy of the mitigation (efficacy of reducing intersection delay) and avoidance of right-of-way, access, parking, and other impacts to adjacent properties.

The Build Alternatives and design options would also provide benefits to the affected EJ communities, including improved transit service, transit access, regional mobility, and air quality. Alternatives 1, 2, and 3 also include three new LRT stations (Slauson/A Line, Pacific/Randolph and Florence/Salt Lake Stations) near Huntington Park and Bell, which would be a benefit to those communities. Implementation of the Build Alternatives would result in a benefit by reducing intersection delay at several intersections across the corridor, including in Huntington Park. This would occur for a variety of reasons, including implementation of project measures, optimized traffic signal timing, reconfiguration of roadway lanes, and/or changes in traffic flow. Improvements in delay would occur at the intersection where modifications occur and potentially at adjacent intersections due to improvements in traffic flow. Under the Build Alternatives, travel time on transit would be shorter than existing transit service across the corridor.

After the implementation of mitigation, Huntington Park would have adverse effects related to traffic. Considering the implementation of mitigation measures and the off-setting benefits as described in Section 5.2.7.1, the Build Alternatives would not result in disproportionately high and adverse effects to EJ communities within the EJ Affected Area.

5.2.1.2 Active Transportation (Bicycle/Pedestrian Facilities)

Summary of Effects

The potential conflict with planned bike paths in local plans is discussed in Section 5.2.2. Impacts to active transportation (pedestrians and bicyclists) facilities would occur if the Build Alternatives, Design Options 1 and 2, or MSF site options would remove or degrade a bike facility or sidewalk. Beneficial impacts can occur where new facilities are added, existing facilities are upgraded, or when access to active transportation facilities are provided at new LRT stations. The bicycle and pedestrian system would generally be the same as the No Build Alternative. Where project features would encroach on existing bicycle facilities (i.e., Paramount Bike Trail and Bellflower Bike Trail) or sidewalks, these facilities would be realigned or reconstructed as part of the Build Alternatives. Permanent impacts would be avoided. The pedestrian and bicycle facilities would remain operational and function would be maintained.

Environmental Justice Analysis

The Build Alternatives would not result in adverse effects related to active transportation. The Build Alternatives would include enhancements to pedestrian walkways in the vicinity of the stations. Thus, the Build Alternatives would not result in disproportionately high and adverse effects related to active transportation to EJ communities in the EJ Affected Area.

5.2.1.3 Parking

Summary of Effects

If parking demand exceeds the supply of parking spaces (including the parking spaces provided at the Build Alternatives), then an increase in localized traffic and delay along roadways and at intersections could occur, including a corresponding increase in idling and vehicular emissions as vehicles search for parking options. Adverse effects are not expected at the stations

where no additional parking is provided (stations north of the Firestone Station and Gardendale Station).

Dedicated transit parking facilities are proposed at the Firestone, I-105/C Line, Paramount/Rosecrans, Bellflower, and Pioneer stations for Alternatives 1 through 3 (including design options), and at the I-105/C Line, Paramount/Rosecrans, Bellflower, and Pioneer Stations for Alternative 4. Table 5.1 shows the station areas where park-and-ride demand would be higher than the number of parking spaces that would be provided by the Build Alternatives. EJ communities that would experience adverse effects are also shown in the table. Where parking demand would exceed the number of parking spaces that would be provided at the proposed station areas, on-street parking would likely be used. Parking demand would exceed the project’s construction of off-street parking spaces provided at the Firestone Station in Huntington Park (Alternatives 1, 2, and 3), I-105/C Line Station in South Gate (Alternatives 1 and 2), Paramount/Rosecrans Station in Paramount (Alternative 2), Bellflower Station in Bellflower (Alternatives 1, 2, 3, and 4), and Pioneer Station in Artesia (Alternatives 1 and 2). On-street parking is anticipated to be sufficient to accommodate demand during the peak hours at the I-105/C Line, Paramount/Rosecrans, Bellflower, and Pioneer Stations for Alternatives 1, 2, 3, and 4, and the Firestone Station for Alternative 3.

Mitigation Measures TRA-21 (Parking Monitoring and Community Outreach) and TRA-22 (Parking Mitigation Program [Permanent]) would be implemented. The proposed mitigation would be implemented to the system as a whole and would apply to all proposed stations, including the stations where no additional parking is proposed. It is possible that adverse effects would remain after mitigation at Firestone Station under Alternative 1 and 2. While adverse effects are unlikely at the stations where no additional parking is provided (stations north of the Firestone Station and Gardendale Station), as well as the I-105/C Line, Paramount/Rosecrans, Bellflower, and Pioneer Stations, Mitigation Measures TRA-21 (Parking Monitoring and Community Outreach) and TRA-22 (Parking Mitigation Program [Permanent]) would be implemented. Mitigation would be implemented to the system as a whole and would apply to all proposed stations.

Table 5.1. Transit Parking Impacts by Station

Station	EJ Community	Alt. 1		Alt. 2		Alt. 3		Alt. 4	
		Exceed transit parking?	Exceed on-street capacity?	Exceed transit parking?	Exceed on-street capacity?	Exceed transit parking?	Exceed on-street capacity?	Exceed transit parking?	Exceed on-street capacity?
Firestone	South Gate	Yes	Yes	Yes	Yes	Yes	No	–	–
I-105/C Line	Paramount	Yes	No	Yes	No	No	No	No	No
Paramount/Rosecrans	Paramount	No	No	Yes	No	No	No	No	No
Bellflower	Bellflower	Yes	No	Yes	No	Yes	No	Yes	No
Pioneer	Artesia	Yes	No	Yes	No	No	No	No	No

Source: Metro, 2020q

Notes: “–” means not applicable to alternative.

Table 5.2 presents a summary of the areas that would experience a net loss in on-street parking spaces with implementation of the Build Alternatives.

Table 5.2. On-Street Parking Loss

Location	EJ Community	Build Alternatives Affected	Net Loss of Parking Spaces
Long Beach Avenue between Olympic Street and 14th Street	Los Angeles	Alternatives 1, 2	20
Long Beach Avenue between Vernon Avenue and 24th Street	Los Angeles	Alternatives 1, 2	25
Randolph St between Holmes Ave and State St	Huntington Park	Alternatives 1, 2, 3	79
Main St Grade Crossing	South Gate	Alternatives 1, 2, 3	12

Source: Metro, 2020q

Alternatives 1, 2, and 3 would result in a net loss of on-street parking spaces in Central City North, Southeast Los Angeles, Huntington Park, and South Gate along the proposed alignment and at station areas. These areas vary in land uses including light industrial, warehouse, and church, and the loss of on-street parking would not affect the function of the adjacent land uses or the off-street parking of these facilities.

Alternative 4 would not result in a net loss of on-street parking spaces. No adverse effects would occur for the Build Alternatives related to the loss of off-street parking. No adverse effects would occur for Design Options 1 and 2 the two MSF site options. The MSF site options would not affect on- or off-street parking availability because the MSF site options would not create a demand for on-street parking spaces and the MSF site options would remove off-street parking and the business(es) that utilize that parking.

Environmental Justice Analysis

Adverse effects related to parking would affect Central City North, Southeast Los Angeles, Huntington Park, South Gate, Paramount, Bellflower, and Artesia. As the communities in the EJ Affected Area are all EJ communities, environmental effects of the Build Alternatives would be predominantly borne by EJ communities. Among the areas experiencing parking effects, Southeast Los Angeles, Paramount, Bellflower, and South Gate have the highest concentrations of EJ populations while Artesia and Central City North have the higher concentration of non-EJ populations. The parking effects would occur in both EJ communities with high concentrations of EJ populations as well as areas with comparable non-EJ populations (Artesia and Central City North). The magnitude of the effects would be similar across the corridor and would not be concentrated in one community.

The Build Alternatives would not result in an appreciably more severe or greater in magnitude adverse effect in areas with EJ populations compared to areas with non-EJ populations.

As discussed in Section 5.2.7.1, the Build Alternatives and design options would also provide benefits to the affected EJ communities, including improved transit service and transit access, regional mobility, and air quality. With the implementation of mitigation measures and in consideration of the off-setting benefits to the affected EJ communities, the Build Alternatives would not result in disproportionately high and adverse effects related to parking to the EJ communities within the EJ Affected Area.

5.2.2 Land Use and Development

5.2.2.1 Summary of Effects

The Build Alternatives would preempt the future development and implementation of Class I bicycle paths in the local bicycle plans: along Salt Lake Avenue (Huntington Park, Bell, Cudahy), north of Rayo Avenue and south of the Los Angeles River (South Gate), and south of Main Street (South Gate). While planned, the bike facilities are concepts in the local plans and are not funded nor scheduled for implementation in local capital improvement budgets/programs. The Build Alternatives would result in an inconsistency with the current local plans and an adverse effect would occur.

With the implementation of Mitigation Measure LU-1 (Consistency with Bike Plans), Metro, as appropriate, would support preparation of amended language for each affected local plan consistent with each city's mobility and connectivity goals. Sufficient space would be available to accommodate alternative bike path classifications along the streets adjacent to the Build Alternatives. These Class II and Class III bike facilities would maintain the connectivity and be supportive of the goals identified in the bicycle plans. However, because the process to amend bike plans is a local process, including public participation, the ultimate outcome and resolution of plan elements cannot be predicted. Therefore, an adverse effect related to the inconsistency with local plans may still occur after Mitigation Measure LU-1.

5.2.2.2 Environmental Justice Analysis

The Build Alternatives were considered to have potential adverse effects related to the conflict with local plans in Huntington Park, Bell, Cudahy, and South Gate. As the communities in the EJ Affected Area are all EJ communities, the effects of the Build Alternatives would be predominantly borne by EJ communities. Huntington Park and South Gate have the highest concentration of EJ populations while Bell and Cudahy have higher concentrations of non-EJ populations. Adverse effects would be similar for Huntington Park, Bell, Cudahy, and South Gate and would occur in both EJ communities and areas with non-EJ populations. Mitigation would be similarly implemented along the project corridor as necessary for each Build Alternative.

As discussed in Section 5.2.7.1, the Build Alternatives, design options, and MSF site options would also provide benefits to the affected EJ communities, including a reliable, fixed guideway transit service that would improve mobility, and increased transit connectivity and access to areas that have been previously underserved by regional transit. The Build Alternatives would be supportive of the transportation and connectivity goals in the local plans. With the implementation of mitigation measures and in consideration of the off-setting benefits to the affected EJ communities, the Build Alternatives would not result in disproportionately high and adverse effects related to land use planning to the EJ communities in the EJ Affected Area.

5.2.3 Acquisitions and Displacement

5.2.3.1 Summary of Effects

Property acquisitions would be required for tracks, tunneling, aerial structures, vents/switches/egress, stations, train control house, radio house, TPSS sites, grade crossing/separations, and parking facilities. Full acquisitions in the form of permanent aerial easements would be required to accommodate the aerial structures and columns for the aerial segments of the alignment. Partial acquisitions for permanent underground easements would

be required to accommodate tunneling for underground alignments and underground TPSS sites. In addition, partial acquisitions would be required for station entrances, grade crossing/separations, freight relocation, and other ancillary facilities. Property acquisitions would primarily affect commercial and industrial areas, although several residential properties would also be affected.

Non-residential and residential displacements would occur as a result of property acquisition. Partial acquisition of residential properties would be primarily in rear yards of properties adjacent to the rail ROWs. For such properties, the primary dwelling units are set toward the front of the properties, away from the rail ROW and the area where the acquisition would be required. Sufficient residential replacement sites to relocate all residential displacees are available in the jurisdictions in which the affected communities are located (see *West Santa Ana Branch Transit Corridor Project Displacement and Acquisitions Report* [Metro 2000m]).

Table 5.3 summarizes the total number of parcels and square footage that would be affected by permanent full and partial acquisitions in each jurisdiction, as well as the number of potential businesses, employees, residential units, and residents that would be permanently displaced as a result of the acquisitions. Table 5.4 summarizes the total number of parcels and square footage that would be affected by the permanent full and partial acquisitions for the Build Alternatives, design options, and MSF site options. This table also summarizes the number of potential businesses, employees, residential units, and residents that would be displaced as a result of the property acquisitions.

Overall, the Los Angeles, Huntington Park, Bellflower, Paramount, and Artesia in the EJ Affected Area would each have 10 or fewer residential units displaced.

Table 5.3. Property Acquisitions and Permanent Displacement by Jurisdiction

Jurisdiction	Property Acquisition		Displacement			
	Total Parcels Acquired ¹	Total Area Acquired (sq ft)	Total Businesses Displaced	Estimated Employees Displaced ²	Total Residential Units Displaced ³	Estimated Occupants Displaced
Alternatives 1, 2, 3						
Los Angeles						
Alternative 1	61	282,020.0	33	278	6	18
Alternative 2	124	399,213.0	52	365	6	18
Alternative 3	13	2,320.4	9	30	6	18
Vernon	3	6,179.5	0	0	0	0
Unincorporated LA County (Florence-Firestone)	1	86.5	0	0	0	0
Huntington Park	43	52,072.2	10	60	7	28
Cudahy	8	4,646.5	1	7	0	0

Jurisdiction	Property Acquisition		Displacement			
	Total Parcels Acquired ¹	Total Area Acquired (sq ft)	Total Businesses Displaced	Estimated Employees Displaced ²	Total Residential Units Displaced ³	Estimated Occupants Displaced
South Gate	48	699,080.2	29	159	0	0
Downey	2	3,785.5	0	0	0	0
Alternatives 4						
South Gate	5	158,080.7	2	18	0	0
Alternatives 1, 2, 3, 4						
Paramount	36	283,838.2	2	57	6	24
Bellflower	5	134,897.0	1	10	0	0
Artesia	13	104,385.1	13	30	2	8
Design Options						
Los Angeles (Design Option 1)	12	170,863.8	0	0	0	0
Los Angeles (Design Option 2)	4	23,862.1	1	23	0	0
MSF Site Options						
Paramount (Paramount MSF)	43	1,052,780.2	5	109	7	28
Bellflower (Bellflower MSF)	2	934,533.9	2	75	0	0

Source: Metro, 2000m

Notes: ¹ Impacted parcels include parcels that would be affected by full and partial acquisitions

² Estimated number of displaced employees is based on research using RefUSA, and CoStar's Tenant module. Employee counts for business records missing this information were estimated by referencing similarly sized businesses in the area where employee count data was available.

³ Total residential units displaced include single- and multi-family units.

Table 5.4. Property Acquisitions and Permanent Displacement by Build Alternatives

Build Alternative	Property Acquisition		Displacement			
	Total Impacted Parcels ¹	Total Area Acquired (sq ft)	Total Businesses Displaced	Estimated Employees Displaced ²	Total Residential Units Displaced ³	Estimated Occupants Displaced
Alternative 1	220	1,570,990.7	89	601	21	78
Alternative 2	283	1,688,183.7	108	687	21	78
Alternative 3	172	1,291,291.1	65	352	21	78
Alternative 4	59	681,201.1	18	115	8	32

Build Alternative	Property Acquisition		Displacement			
	Total Impacted Parcels ¹	Total Area Acquired (sq ft)	Total Businesses Displaced	Estimated Employees Displaced ²	Total Residential Units Displaced ³	Estimated Occupants Displaced
Design Options						
Design Option 1	12	170,863.8	0	0	0	0
Design Option 2	4	23,862.1	1	23	0	0
MSF Site Options						
Paramount MSF Option	43	733,602.3	5	109	7	28
Bellflower MSF Option	2	934,533.9	2	75	0	0

Source: Metro, 2000m

Notes: ¹ Total impacted parcels include parcels that would be affected by full and partial acquisitions

² Estimated number of displaced employees is based on research using RefUSA, and CoStar's Tenant module. Employee counts for business records missing this information were estimated by referencing similarly sized businesses in the area where employee count data was available.

³ Total residential units displaced include single- and multi-family units.

A gap analysis was conducted to look at the amount of available replacement sites for lease and sale within each jurisdiction and within six miles of each affected property based on 2018 market conditions. Based on that analysis a sufficient number of replacement sites are available for a majority of the affected businesses within 6 miles of the affected location (see *West Santa Ana Branch Transit Corridor Project Displacement and Acquisitions Report* [Metro 2000m]). Special property conditions (i.e., nursery, drive-in theater, swap meet, recreational business) may struggle to find a suitable replacement site to lease at the time of acquisition and may not be able to successfully relocate. Currently, an insufficient number of potential replacement sites for sale or lease exist to accommodate these types of displacements and these businesses may not be able to successfully relocate.

The nursery business (South Gate), drive-in theater and swap meet (Paramount) and sports center (Bellflower) may be acquired and displaced by the Build Alternatives; however, these businesses do not serve especially important social, religious or cultural functions for the surrounding EJ populations. Although the businesses provide employment, the facilities are not large employment centers.

Metro would provide relocation assistance and compensation for all displaced businesses and residences as required under the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, FTA and Metro would follow the provisions of both Acts, as amended. Metro would also follow the policies and procedures contained within Metro's acquisition and relocation policies and procedures. With compliance with the Uniform Act, California Relocation Act, and other applicable regulations, no adverse effect on acquisition and displacement would occur for the Build Alternatives, design options, and MSF site options.

5.2.3.2 Environmental Justice Analysis

Compliance with the above regulations is standard practice for Metro and is implemented similarly throughout Metro's system in both EJ and non-EJ communities. As described in Section 5.2.7.1, the Build Alternatives and design options would also provide benefits to the affected EJ communities, including improved transit service and transit access, regional mobility, and air quality. With compliance with the Uniform Act, California Relocation Act, and other applicable regulations and the consideration of offsetting benefits to EJ communities, the Build Alternatives would not result in disproportionately high and adverse effects related to acquisitions and displacement to EJ communities in the EJ Affected Area.

5.2.4 Visual and Aesthetics

5.2.4.1 Summary of Effects

As discussed in the *West Santa Ana Branch Transit Corridor Project Final Visual and Aesthetic Impact Analysis Report* (Metro 2021m), the Build Alternatives, design options, and MSF site options would not change the natural topography and would not obstruct views of or alter the visual character and quality of scenic resources. Project Measures VA PM-1 through VA PM-7 would be implemented to minimize visual effects associated with Project components, such as design standards, incorporation of public art at station areas, incorporation of landscaping at TPSS in residential areas, maintaining or replacing the existing landscaping and barriers that faces residential areas at the Bellflower MSF site option, and directing light away from surrounding properties. At Somerset Boulevard in the EJ community of Paramount, the existing landscaping and decorative wall on the south side of the World Energy storage tracks (east of the proposed LRT tracks) could potentially be removed, which would make the refinery storage tank cars more visible to sensitive viewers (residents). Views of the storage tank cars would not be visually compatible with the surrounding residential area, and residents (particularly those on the south side of Somerset Boulevard) would be sensitive to the change in visual character. The design options and MSF site options would not adversely affect views of scenic resources.

The Build Alternatives would remove the "Belle" public art cow statue, which has aesthetic value to the City of Bellflower. Therefore, adverse visual effects would occur with the removal of the "Belle" public art cow statue and the decorative wall and landscaping at Somerset Boulevard. With implementation of Mitigation Measures VA-1 (Screening at Somerset Boulevard) and VA-2 (Relocation of "Belle"), no adverse effects on visual quality and aesthetics would occur since views of the storage tank cars would remain obstructed along Somerset Boulevard and the "Belle" public art cow statue would be relocated to a city-approved location in Bellflower, subject to a condition assessment detailing the current physical condition of the artwork. Removal of the public art cow statue would not conflict with or detract from the visual character of the portion of the PEROW on which the public art statue is sited. The design options and MSF site options would not adversely affect views of scenic resources.

5.2.4.2 Environmental Justice Analysis

Removal of the public art cow statue would not conflict with or detract from the visual character of the portion of the PEROW on which the public art statue is sited. In addition, the statue represents the city's origins as a dairy community; which may have social importance to the community of Bellflower as a whole but may not have especially important social, religious, or cultural importance for EJ communities. The relocation to a city-approved location would not change its importance to Bellflower and would not result in an adverse effect. Therefore, with the implementation of mitigation and in consideration of offsetting

benefits as described in Section 5.2.7.1, the Build Alternatives would not result in disproportionately high and adverse effects related to visual and aesthetics to EJ communities in the EJ Affected Area.

5.2.5 Noise and Vibration

5.2.5.1 Noise

Summary of Effects

Operational sources of noise include train movements, audible warnings, station public address system, special trackwork (turnouts and crossovers), wheel squeal, ancillary equipment (TPSS and ventilation shafts), and MSF activity. Table 5.5 summarizes the number of noise sensitive receptor clusters that would have noise impacts prior to and after implementation of mitigation measures. The noise impacts would occur in the communities of Southeast Los Angeles, unincorporated Florence-Firestone, Huntington Park, Bell, Cudahy, South Gate, Paramount, Bellflower, Cerritos and Artesia (see *West Santa Ana Branch Transit Corridor Project Final Noise and Vibration Impact Analysis Report* [Metro 2021i]). Without the implementation of mitigation measures, noise impacts related to the project operation and/or freight track relocation would generally occur throughout the Project corridor where residences and other noise-sensitive land uses are located adjacent to the aerial and at-grade portions of the alignment or Paramount MSF site option. Impacts may occur in Huntington Park and Paramount in the EJ Affected Area due to the relocation of freight tracks. It is noteworthy that noise impacts related to train pass-bys would not occur in downtown Los Angeles area as the tracks would be subterranean.

Table 5.5. Summary of Noise Impacts

Build Alternatives	LRT Pass-by		Freight Track Relocation		Ancillary Noise	
	Moderate ¹	Severe ²	Moderate ¹	Severe ²	Moderate ¹	Severe ²
Noise Impacts before Mitigation^{3,4}						
Alternative 1	86	173	35	26	5	2
Alternative 2	85	174	35	26	5	2
Alternative 3	69	155	35	26	1	2
Alternative 4	21	119	7	15	1	1
Design Option 1	0	0	0	0	0	0
Design Option 2	0	0	0	0	0	0
Noise Impacts after Mitigation^{3,4}						
Alternative 1	110	60	37	11	0	0
Alternative 2	110	60	37	11	0	0
Alternative 3	101	59	37	11	0	0
Alternative 4	59	44	14	1	0	0
Design Option 1	0	0	0	0	0	0
Design Option 2	0	0	0	0	0	0

Source: Metro 2021i

Notes: LRT = light rail transit

¹Moderate impact: Project-generated noise in this range is considered to cause impact at the threshold of measurable annoyance.

² Severe impact: Project-generated noise in this range is likely to cause a high level of community annoyance

³ Numbers represent the amount of noise-sensitive receptor clusters that would have noise impacts.

⁴ Paramount and Bellflower MSF site options would not result in noise impacts.

The Paramount MSF site option would result in adverse noise effects related to the MSF lead tracks at the residential neighborhood north of Rosecrans Avenue within the City of Paramount in the Affected Area. The Bellflower MSF site option would not result in additional adverse noise effects at residential areas. Mitigation Measures NOI-1 through NOI-7, which include soundwalls, low impact frogs, noise monitoring, crossing signal bells, gate-down-bell-stop variance, and TPSS noise reduction, would reduce adverse effects related to noise for the Build Alternatives and MSF site options.

Mitigation measures would be implemented as required throughout the project corridor without consideration of character of the adjacent community or the composition of the population. Similar noise project measures and mitigation (e.g., varied heights in soundwalls, low-impact frogs, wheel squeal noise monitoring, crossing signal bells, gate-down-bell stop variances, and TPSS noise reduction measures) have been similarly implemented throughout Metro's system in both EJ and non-EJ communities to minimize adverse effects to the extent feasible. As summarized in Table 5.5, adverse noise effects would remain even after implementation of mitigation measures. The adverse noise effects after implementation of mitigation measure would occur in the communities of Southeast Los Angeles, unincorporated Florence-Firestone, Huntington Park, Bell, Cudahy, South Gate, Paramount, Bellflower, Cerritos, and Artesia.

Environmental Justice Analysis

Noise impacts would occur throughout the project corridor at residential areas and other noise and vibration-sensitive land uses. Adverse noise effects related to noise would affect the EJ communities of Southeast Los Angeles, Florence-Firestone, Huntington Park, Bell, Cudahy, South Gate, Paramount, Bellflower, Cerritos, and Artesia.

The number of affected noise receptors after mitigation would be highest in Huntington Park, Paramount, Bellflower, and Artesia. As the communities in the EJ Affected Area are all EJ communities, environmental effects of the Build Alternatives would be predominantly borne by EJ communities. Huntington Park, Paramount, Bellflower, Southeast Los Angeles, and South Gate have the highest concentration of EJ populations. Artesia, Cerritos, and Bellflower have the highest concentration of non-EJ populations compared to the other EJ communities with adverse noise effects. Adverse noise effects would occur in EJ communities with higher concentrations of EJ populations as well as areas with comparable non-EJ populations and would not be concentrated in one EJ community. The Build Alternatives would not result in an appreciably more severe or greater in magnitude adverse effect than other areas with comparable non-EJ populations.

The Build Alternatives would also provide off-setting benefits (Section 5.2.7.1) such as an alternative mode of transportation that would increase mobility and transit access, provide air quality improvements, and economic and fiscal benefits. With the implementation of mitigation and in consideration of off-setting benefits, the Build Alternatives would not result in disproportionately high and adverse effects related to noise to EJ communities in the EJ Affected Area.

5.2.5.2 Vibration

Summary of Effects

The primary source of vibration would be train movements. Only one vibration impact would occur in the downtown Los Angeles area for Alternatives 1 and 2, as the tracks would be subterranean. No vibration impacts would occur for Design Options 1 and 2, and the MSF site options. Table 5.6 summarizes the number of vibration sensitive receptor clusters that would have vibration impacts prior to and after implementation of mitigation measures. The majority of vibration impacts would occur where the LRT would be at-grade. No vibration impacts would occur for the design options and MSF site options. Vibration impacts would occur along the at-grade portion of the alignment where residential uses and other sensitive land uses are located and affect the same communities with noise impacts described above. Implementation of Mitigation Measures VIB-1 (Ballast Mat or Resilient Rail Fasteners) and VIB-2 (Low Impact Frogs) would reduce vibration impacts associated with the Build Alternatives. Mitigation measures would be implemented similarly throughout the project corridor.

Table 5.6. Summary of Vibration Impacts

Build Alternatives	Vibration Impacts Before Mitigation ^{1,2}		Vibration Impacts After Mitigation ^{1,2}	
	LRT Pass-by	Freight Track Relocation	LRT Pass-by	Freight Track Relocation
Alternative 1	102	0	14	0
Alternative 2	101	0	14	0
Alternative 3	96	0	13	0
Alternative 4	62	0	11	0
Design Option 1	0	0	0	0
Design Option 2	0	0	0	0

Source: Metro 2021z

Notes: LRT = light rail transit

¹ Numbers represent the amount of vibration-sensitive receptor clusters that would have vibration impacts.

² Paramount and Bellflower MSF site options would not result in vibration impacts.

Environmental Justice Analysis

Vibration impacts would occur along the at-grade portion of the alignment where residential uses and other sensitive land uses are located and affect the same EJ communities with noise impacts described above. This includes both EJ communities with high concentrations of EJ populations as well as areas with comparable non-EJ populations and would not be concentrated in one EJ community. As such, the Build Alternatives would not result in an appreciably more severe or greater in magnitude adverse effect than other areas with comparable non-EJ populations.

Similar vibration project measures and mitigation (e.g., low-impact frogs, ballast mat or resilient rail fasteners) have been similarly implemented throughout Metro's system in both EJ and non-EJ communities to minimize adverse effects to the extent feasible. The Build Alternatives would also provide off-setting benefits (Section 5.2.7.1). With the implementation of mitigation and in consideration of off-setting benefits, the Build Alternatives would not result in disproportionately high and adverse effects related to vibrations in EJ communities in the EJ Affected Area.

5.2.6 Parklands and Community Facilities

5.2.6.1 Summary of Effects

The potential conflict with planned bike paths in local plans is discussed in Section 5.2.2. The Build Alternatives primarily would be located within street ROWs and rail ROWs, or within acquired properties. The Build Alternatives may require subsurface easements or partial acquisition of community facilities. The subsurface easements partial property acquisitions would not alter the functionality of the facilities. No displacement of community or recreational facilities are anticipated.

As discussed in Section 5.2.1.2, where project features would encroach on existing bicycle facilities (i.e., Paramount Bike Trail and Bellflower Bike Trail) or sidewalks, these facilities would be realigned or reconstructed as part of the Build Alternatives. Permanent impacts would be avoided. The pedestrian and bicycle facilities would remain operational and function would be maintained. Thus, the Build Alternatives would not have adverse impacts to parklands and community facilities. The Build Alternatives would not result in disproportionately high and adverse impacts related to active transportation to EJ populations.

5.2.6.2 Environmental Justice Analysis

Pedestrian and bicycle facilities would remain operational and function would be maintained. Thus, the Build Alternatives would not have adverse impacts to parklands and community facilities. The Build Alternatives would not result in disproportionately high and adverse impacts related to active transportation to EJ populations.

The Build Alternatives, design options, and MSF site options would provide benefits to the EJ communities such as improve transit service and access, as well as regional mobility. This would provide the EJ communities in the EJ Affected Area with increased access to other parklands and community facilities along the project corridor. With the implementation of mitigation and in consideration of off-setting benefits to the affected EJ communities, disproportionately high and adverse effects related to parklands and community facilities would not occur in EJ communities in the EJ Affected Area.

5.2.7 Summary of Environmental Justice Analysis

5.2.7.1 Summary of Benefits

The Build Alternatives and design options would benefit the EJ communities in the Affected Area. The Build Alternatives and design options would increase the mobility of EJ populations, improve air quality, reduce regional energy consumption, and provide economic and fiscal benefits. The MSF site options would support the Build Alternatives and design options. As the MSF site options are a requisite component of the Build Alternatives and design options. Additionally, the EJ communities around the MSF site options would experience similar air quality as the Build Alternatives and design options.

The Build Alternatives, including the design options and MSF site options (which would support the Build Alternatives), would result in an improvement to both regional and local transit services, accessibility, and reliability because the LRT would operate in exclusive rights-of-way. Travel time with the LRT would be shorter than existing transit service in the jurisdictions. The Build Alternatives and design options would provide the EJ communities additional transit service, new LRT stations in EJ communities, an alternative mode of transportation. This would also increase regional and local access employment centers, activity centers, and community facilities for the

EJ communities and the residents along the corridor. With the proposed pedestrian, bike, and transit connection improvements, the Build Alternatives would support active transportation and improve walkability near the proposed stations.

The Build Alternatives, design options, and MSF site options would reduce regional air pollutants, GHG emissions, and energy consumption by decreasing regional VMT relative to the No Build Alternative. Daily operational emissions, mobile source air toxics emissions, and regional energy consumption would be lower than under the No Build Alternative. The reduction in pollutant emissions, GHG emissions, and energy consumption represent benefits to EJ populations and the region as a whole.

The Build Alternatives would have positive economic and fiscal effects which would benefit EJ populations. The Build Alternatives would result in economic benefits in the form of long-term job creation, creation of construction jobs, opportunities for potential future transit-oriented development, and potential increase in property values near the station areas.

5.2.7.2 Summary of Effects on Environmental Justice Communities

As discussed for each of the environmental topics above, the Build Alternatives, design options, and MSF site options would not have adverse effects with regard to transportation; acquisitions and displacement; communities and neighborhoods; visual and aesthetics (visual character and quality of scenic resources; construction); air quality (operations; construction odors, construction localized pollutant emissions); greenhouse gas emissions; ecosystems and biological resources (operations, special-status species, jurisdictional resources, protected trees); geotechnical, subsurface, seismic hazards; hazards and hazardous materials; water resources; energy; electromagnetic fields; archaeological, historical, and paleontological resources; traditional cultural properties/tribal cultural resources; parklands and community facilities; (operational access and function of parklands, community facilities); economic and fiscal impacts; safety and security; and Section 4(f) resources

After the implementation of mitigation measures, the Build Alternatives would result in adverse effects on EJ communities in the EJ Affected Area related to traffic operations and parking; land use consistency; and noise and vibration levels. Adverse traffic effects after mitigation would be located in Huntington Park along Randolph Street. The Build Alternatives, design options, and MSF site options would comply with all applicable federal, state, and local regulations. Where adverse effects would occur, mitigation measures would be provided and implemented equally throughout all of the EJ communities in the Affected Area.

As previously discussed, the EJ Affected Area consists of all EJ communities. Environmental effects of the Build Alternatives would be predominantly borne by EJ communities. Overall, adverse effects would occur in EJ communities with higher percentages of EJ populations and areas with comparable non-EJ populations. The Build Alternatives, design options, and MSF site options would not result in effects suffered by the EJ population that would be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by the non-EJ population.

As discussed in Section 5.2.7.1, the Build Alternatives and design options would also provide benefits to the affected EJ communities, including improved transit service and transit access, regional mobility, and air quality. Under NEPA, with the implementation of mitigation and with consideration to off-setting benefits, the Build Alternatives, design options, and MSF site options would not cause a disproportionately high and adverse effect on the EJ communities in the Affected Area.

6 CALIFORNIA ENVIRONMENTAL QUALITY ACT DETERMINATION

CEQA has no requirements to specifically address socioeconomic factors and, as a result, there are no CEQA EJ analysis requirements and a CEQA determination is not included in this section. The issue of EJ, as it is defined in California law, is not required to be a separate component of analysis in an EIR. In particular, questions of social and economic effects have a circumscribed role within CEQA. *CEQA Guidelines* Section 15131 allows the approving agency to include or present economic or social information in an EIR, but *CEQA Guidelines* Section 15131(a) limits the consideration of such factors in the assessment of significant impacts, stating:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

Issues that are pertinent to the question of environmental justice that are addressed under CEQA are considered in the Draft EIR, including discussions in the air quality, noise, hydrology and water quality, hazards and hazardous materials, population and housing, transportation, and Other CEQA Considerations technical sections.

7 CONSTRUCTION IMPACTS

7.1 Construction Activities

Construction activities associated with the West Santa Ana Branch Transit Corridor Project are detailed in the *West Santa Ana Branch Transit Corridor Project Construction Methods Report* (Metro 2021f).

7.2 Regulatory Background and Methodology

7.2.1 Regulatory Background

All federal, state, regional, and local regulations and guidelines as they relate to EJ populations are discussed in Chapter 3.

7.2.2 Methodology

To satisfy NEPA requirements this analysis utilizes the same methods in looking at the EJ communities in the Affected Area as discussed in Section 1.5 to identify and evaluate potential effects on the affected EJ communities during construction activities.

EJ is addressed under NEPA. CEQA does not have thresholds of significance for EJ impacts. Therefore, no CEQA determination can be made regarding EJ.

7.3 No Build Alternative

The No Build Alternative includes projects identified in the SCAG 2016-2040 RTP/SCS, Metro 2009 LRTP, and Measure M. Under the No Build Alternative, the Build Alternatives would not be developed. However, several infrastructure and transportation-related projects located within the Study Area as described in Table 2.1 would be implemented and built. SCAG 2016-2040 RTP/SCS, Metro 2009 LRTP, and Measure M projects identified in the Project vicinity include the Metro East-West Line/Regional Connector/Eastside Phase 2, CA HSR, Metro North-South Line/Regional Connector, improvements to the Metro bus system and local municipality bus systems, I-710 South Corridor Project, and I-105 Express Lane.

Construction activities may include, but are not limited to, construction staging, materials stockpiling, hauling of dirt and materials, and temporary street and lane closures. Temporary easements may also be required. However, construction activities would be temporary and would not result in long-term impacts to surrounding communities. Furthermore, projects built under the No Build Alternative would implement project-specific construction-related measures to reduce and minimize potential adverse effects. Projects planned under the No Build Alternative would undergo separate environmental review to determine whether the projects would adversely affect environmental justice communities.

7.4 Build Alternatives, Design Options, MSF Site Options

The following environmental topics would not result in adverse effects in the Affected Area. Therefore, these environmental topics would not result in a disproportionately high and adverse effect to EJ communities and are not further discussed: Section 4(f) Resources; ecosystems and

biological resources (special status species and jurisdictional resources); archeological, historical, and paleontological resources; and traditional cultural properties/tribal cultural resources.

7.4.1 Transportation

7.4.1.1 Summary of Effects

Traffic Operations Effect

Construction activities for the Build Alternatives, design options, and MSF site options would have temporary traffic effects associated with street and lane closures, reconfiguration of roads, detours, and traffic related to construction workers accessing and departing construction staging areas. Construction activities for the Build Alternatives are anticipated to commence as early as 2022 and last through 2028 with revenue service beginning in 2028. In general, increased delay for drivers would occur where there are lane reductions or increased travel distances because of detours, resulting in additional vehicle delay and traffic circulation. Detours would be identified to preserve circulation around temporary street closures or where turning movements are restricted. All construction activity near or on freeway facilities including ramp closures would be coordinated with Caltrans. Minor impacts to traffic operations associated with the staging/laydown areas and haul routes would occur. Impacts would be further minimized with the implementation of Mitigation Measure TRA-20 (Transportation Management Plan(s)) would address potential construction-related traffic impacts. Implementation of the TMP would minimize temporary construction-related impacts, but adverse effects from construction activities on the street and highway system would remain.

Transit Effects

Construction of the Build Alternatives, design options, and MSF site options may require temporary rerouting of existing transit routes. Minor increases in travel time for transit vehicles would occur. However, coordination with the transit service operators would occur to maintain transit routes and schedules. A detour route around the work zone would be identified, as well as temporarily relocating transit stops outside the work zone. Adverse effects to transit would occur due to the staging/laydown areas since transit stops may need to be relocated in some cases, if there is a conflict with traffic at the staging area, or with the physical constraints of the site itself. These effects would be temporary and fully addressed by modifications (minor relocations) to transit stops. There would be impacts on transit associated with the haul routes and adverse effects would result.

Active Transportation Effects

Construction of the Build Alternatives, design options, and MSF site options may require temporary closures of sidewalks, crosswalks, and bicycle facilities to protect the safety of pedestrians, bicyclists and construction workers. As a result, pedestrian and bicycle access routes in the construction area would be temporarily disrupted during construction. The Build Alternatives would include designation of detour routes and signage to address the potential for these temporary impacts. Also, a construction mitigation program would be developed during final design and implemented during construction. However, even with incorporation of these elements, temporary construction impacts would remain.

Parking Effects

Temporary parking losses would occur during construction. Most of the impacts would be associated with physical construction activities, including road closures, the temporary shifting of vehicle lanes onto existing on-street parking areas to maintain the number of lanes, the removal of on-street parking adjacent to staging and laydown areas, and the removal of parking for haul routes. Mitigation Measure TRA-23 (Loss of Parking [Construction]) would address potential parking reduction effects during construction, which could include, but not be limited to, restriping the existing street to allow for diagonal parking, reducing the number of restricted parking areas, phasing construction activities to minimize parking disruption, and adjusting the time limits for on-street parking. Although implementation of Mitigation Measure TRA-23 (Loss of Parking [Construction]) would reduce parking impacts, adverse effects on parking are likely to remain.

7.4.1.2 Environmental Justice Analysis

As described above, temporary transportation impacts would occur during construction of the Build Alternatives, design options, and MSF site options. These adverse effects would occur in the Affected Area, which consists of predominately EJ populations. As a result, local neighborhoods, businesses, and community facilities in EJ communities may be inconvenienced temporarily, and community activities in the EJ communities could be disrupted by construction. Detours would be identified to preserve circulation around temporary street closures or where turning movements are restricted. Road closures and lane reductions in the EJ communities in the Affected Area would occur during off-peak hours to the maximum extent possible to help minimize traffic disruptions. Mitigation Measure TRA-23 (Loss of Parking [Construction]) would address potential parking reduction effects, and Mitigation Measure TRA-20 (Transportation Management Plan(s)) would address potential construction-related traffic impacts in the EJ communities.

Temporary construction effects would be predominantly borne by EJ communities. With mitigation, temporary adverse transportation effects during construction would affect Central City, Vernon, unincorporated Florence-Firestone, Huntington Park, Bell, Cudahy, Downey, South Gate, Paramount, Bellflower, Cerritos, and Artesia. Central City, Huntington Park, Paramount, Bellflower and South Gate have the highest concentration of EJ populations. Vernon, Artesia, Cerritos, Bellflower, Downey, and Paramount have a higher concentration of non-EJ populations compared to the other EJ communities. Temporary adverse effects related to transportation would occur in EJ communities with higher EJ populations as well as areas with comparable non-EJ populations and would not be concentrated in one EJ community. Construction activities would be temporary and the adverse effects in each EJ community would not result in appreciably more severe or greater in magnitude adverse effects than areas with comparable non-EJ populations. Mitigation measures would be similarly implemented where cut-and-cover, at-grade, or above-grade construction activities would occur in the EJ communities in the Affected Area. With the implementation of mitigation, the Build Alternatives would not result in disproportionately high and adverse effects related to transportation to EJ communities in the EJ Affected Area.

7.4.2 Land Use and Development

7.4.2.1 Summary of Effects

Construction of the Build Alternatives, design options, and MSF site options would result in temporary activities that would disrupt communities while construction activities are performed, such as through restricted street parking, sidewalk detours, and traffic lane closures. Although access to businesses and neighborhoods may be detoured for short periods during construction, access would be maintained per the Project's Construction Outreach Plan as part of Metro's Construction Relation Program in Community Relations designed for the Project. This is further detailed in Mitigation Measure COM-1 (Construction Outreach Plan) in the *West Santa Ana Branch Transit Corridor Project Final Communities and Neighborhoods Impact Analysis Report* (Metro 2021). Impacted sites acquired for temporary construction easements (TCEs) and for temporary street, lane, and bicycle path detours and closures would be returned to pre-construction conditions once construction is complete.

Sensitive land uses adjacent to and along the Project alignment and station areas may experience adverse effects regarding air quality and intermittent construction noise. Project construction would comply with Metro's Green Construction Policy, which includes construction equipment emission control requirements and best management practices for construction activities. In regard to construction noise, Mitigation Measure NOI-8 (Noise Control Plan) would reduce construction noise in the EJ communities. Although adverse air quality and noise effects could potentially occur during construction, adverse effects associated with construction would be temporary and access to sensitive uses would continue to be available. Additionally, the function of the surrounding land uses would not be impaired. Therefore, no adverse effects on land use compatibility would occur.

Construction activities of the Build Alternatives, design options, and MSF site options would not conflict with applicable regional and local land use plans, policies, and regulations. Construction of the Build Alternatives, design options, and MSF site options would further the goals, objectives, and policies of local land use plans as they relate to alternative transportation, public transportation, and future growth in transit within the respective jurisdictional boundaries. Therefore, no adverse construction effects related to land use consistency would occur.

7.4.2.2 Environmental Justice Analysis

Construction of the Build Alternatives, design options, and MSF site options would not conflict with applicable land use plans, policies, and regulations of local agencies and there would be no adverse effect related to land use. Therefore, the Build Alternatives, Design Options 1 and 2, and MSF site options would not result in disproportionately high and adverse effects related to land use in EJ communities in the EJ Affected Area.

7.4.3 Acquisitions and Displacement

7.4.3.1 Summary of Effects

Construction of the Build Alternatives, Design Options 1 and 2, and MSF site options would require TCEs and property acquisitions for construction laydown areas and construction support sites. Construction laydown areas would be primarily located on acquired sites characterized as industrial, commercial, or vacant. Partial acquisitions for construction would not impact existing buildings on the properties or change the primary function of the existing use. Parcels to be fully acquired for construction laydown and construction support sites would

require the demolition of any existing structures on the properties and require the relocation of existing businesses. Table 7.1 summarizes the construction-related acquisitions and TCEs by city. Parcels to be fully acquired for construction would occur in Central City, Central City North, Southeast Los Angeles, Huntington Park, Cudahy, South Gate, Paramount, Bellflower, and Artesia in the EJ Affected Area. No TCEs or property acquisitions would occur in unincorporated Florence-Firestone, Bell, or Cerritos. Partial and full acquisitions and TCEs would not occur in the unincorporated Florence-Firestone community and the cities of Bell and Cerritos. Construction-related partial acquisitions and TCEs also would not be located in the cities of Huntington Park, Cudahy, Paramount, Bellflower, and Artesia.

Table 7.1. Construction-Related Acquisitions and Temporary Construction Easements by City

Jurisdiction	Type	Impacted Parcels		TCE	Total No. of Impacts	Area of Impact (sq ft)
		Full	Partial			
Los Angeles						
Alternative 1	Construction Laydown	38	2	3	43	500,745
Alternative 2	Construction Laydown	37	3	8	48	516,109
Huntington Park	Construction Laydown	1	0	0	1	33,342
Cudahy	Construction Laydown	1	0	0	1	11,172
South Gate	Construction Laydown	8	5	5	18	836,129
Downey	Construction Laydown	0	1	1	2	216,823
Paramount	Construction Laydown	3	0	0	3	219,387
Bellflower	Construction Laydown	1	0	0	1	113,149
Artesia	Construction Laydown	9	0	0	9	84,070

Source: Metro, 2021k

Note: TCE = temporary construction easement

Table 7.2 summarizes the construction-related acquisitions and TCEs by each Build Alternative, design options, and MSF site options. Construction laydown areas and construction support sites would not require the relocation or demolition of residential uses. As previously discussed in Section 5.2.3.1, sufficient number of replacement sites are available for a majority of the affected businesses within 6 miles of the affected location. However, special property conditions (i.e., nursery, drive-in theater, swap meet, and recreational business) may struggle to find a suitable replacement site to lease at the time of acquisition and may not be able to successfully relocate. Currently, an insufficient number of potential replacement sites for sale or lease exist to accommodate these types of displacements, and these businesses may not be able to successfully relocate. Attempting to find a suitable relocation site may require the businesses to relocate so far from the displacement location that relocation would not be feasible.

Metro would provide compensation for all businesses and residents affected during construction as required under the Uniform Act and California Relocation Act. Properties to be used as TCEs would be appraised to determine the market fair value of the portion that would be utilized temporarily during construction and just compensation not less than the approved appraisal would be made to each property owner. Therefore, no adverse effects related to construction would occur.

Table 7.2. Construction-Related Acquisitions and Temporary Construction Easements by Build Alternatives

Build Alternatives	Type	Impacted Parcels		TCE	Total No. of Parcels	Area of Impact (sq ft)
		Full	Partial			
Alternative 1	Construction Laydown	61	8	9	78	2,014,820
Alternative 2	Construction Laydown	60	9	14	83	2,030,184
Alternative 3	Construction Laydown	30	7	7	44	1,554,386
Alternative 4	Construction Laydown	15	0	0	15	567,667
Design Options						
Design Option 1	Construction Laydown	0	0	2	2	55,876
Design Option 2	Construction Laydown	1	1	2	4	56,195
MSF Site Options						
Paramount	Construction Laydown	3	3	0	6	1,419,568
Bellflower	Construction Laydown	1	3	0	4	199,862

Source: Metro, 2021I

Note: TCE = temporary construction easement

7.4.3.2 Environmental Justice Analysis

Adverse effects related to construction-related acquisitions and displacement of businesses and/or residential units would affect the EJ communities of Central City, Central City North, Southeast Los Angeles, Huntington Park, Cudahy, South Gate, Paramount, Bellflower, and Artesia. Central City, Southeast Los Angeles, Huntington Park, Paramount, Bellflower, and South Gate have the highest concentration of EJ populations while Central City North, Cudahy, and Artesia have the higher non-EJ populations. Artesia has the highest concentration of non-EJ populations in comparison to the other communities with construction-related acquisitions and displacements. Construction effects would be predominantly borne by EJ communities. In addition, adverse effects to the nursery business (South Gate), drive-in theater and swap meet (Paramount) and sports center (Bellflower) would be unique to the corridor; however, these businesses do not serve especially important social, religious or cultural functions for the EJ populations it serves. Although the businesses provide employment, the facilities are not large employment centers that supports the EJ communities as a whole.

Construction activities would be temporary and the adverse effects in each EJ community would not result in appreciably more severe or greater in magnitude adverse effects in areas with higher EJ populations than other areas. In consideration of offsetting benefits to EJ communities, the Build Alternatives would not result in disproportionately high and adverse effects related to acquisitions and displacement to EJ communities in the EJ Affected Area.

7.4.4 Communities and Neighborhoods

7.4.4.1 Summary of Effects

During construction, vehicle, pedestrian, and bicycle access to businesses, community assets, and residences may be detoured temporarily, particularly those that are located adjacent to or near the construction area. Construction activities could result in temporary sidewalk, lane,

and/or street closures, which could temporarily affect access and mobility to businesses, community assets, and residences while construction activities occur. However, access to businesses, community assets, residences, and neighborhoods would be maintained, to the extent feasible. Access to community assets and residences may be detoured during construction including, but not limited to, the following areas shown in Table 7.3.

Cut-and-cover, at-grade, and above-grade construction activities would not adversely affect community character and cohesion since construction activities are temporary and would not permanently isolate residential neighborhoods or community assets, and would not permanently alter the physical layout of the Affected Area. The physical layout of the Affected Area would remain similar to existing conditions. Indirect impacts related to temporary construction-related noise, vibrations, and air quality are not anticipated to be adverse. Construction activities would be temporarily visible in the Affected Area and could temporarily affect the visual character of some community assets and residential neighborhoods. Implementation of Mitigation Measures VA-4 (Construction Screening), VA-5 (Construction Lighting), and NOI-8 (Noise Control Plan) would be implemented similarly throughout the areas to reduce construction noise, vibration, and shield sensitive viewers from views of construction sites. Thus, as construction activities are temporary and are not expected to permanently isolate residential neighborhoods or community assets and would not permanently alter the physical layout of the Affected Area, construction activities would not change the character and cohesion of the Affected Area. Therefore, no adverse effect regarding community character and cohesion would occur.

Since construction could temporarily affect access and mobility to businesses, community assets, and residences while construction activities occur, Mitigation Measure COM-1 (Construction Outreach Plan) would be implemented to minimize effects to communities and businesses. As construction activities are temporary, barriers around construction activities and laydown sites would be removed upon completion of construction; and temporary street, lane, and bike path detours and closures would be returned to pre-construction conditions once construction is completed. No adverse effects would occur with implementation of Mitigation Measure COM-1 (Construction Outreach Plan).

Table 7.3. Community Assets Potentially Detoured during Construction

Community Asset	Location
Alternative 1	
Residences	North of LAUS Central City, Los Angeles
Residences	East side of Alameda Street, between 1st and 2nd St, Central City North, Los Angeles
Alternative 2	
Residences	Along to 8th St between Francisco St and Hope St, Central City, Los Angeles
Residences	Along 8th St between Main St and Santee St, Central City, Los Angeles
Alternatives 1 and 2	
Residences	Along Long Beach Ave, Southeast Los Angeles

Community Asset	Location
Alternatives 1, 2, and 3	
Residences	Along Holmes Ave south of Randolph St, Florence-Firestone
Lillian Street Elementary School	Florence-Firestone
Residences	North and south of Randolph St, Huntington Park
UEI College	Huntington Park
San Antonio Continuation School	Huntington Park
San Antonio Elementary School	Huntington Park
Residences	North and south of Salt Lake Ave in Bell, Huntington Park, and Cudahy
Salt Lake Park	Huntington Park
Alternatives 1, 2, 3 and 4	
Paramount Park	Paramount
Residences	On Downey Ave, Paramount
Residences	On the north and south side of PEROW in Bellflower, Cerritos, and Artesia
Bellflower Bike Trail (Bellflower)	Bellflower
Bellflower Pacific Electric Railway Depot	Bellflower
Residences	Surrounding 183rd St/Gridley Ave (Artesia and Cerritos)

Source: Metro, 2021I

Construction activities are temporary and not expected to cause residents to move out of their communities since construction activities are temporary. As a result, construction activities would not adversely affect community stability.

7.4.4.2 Environmental Justice Analysis

Construction of the Build Alternatives, design options, and MSF site options may result in temporary sidewalk detours and traffic lane closures in the EJ communities where at-grade and above-grade construction activities, including underground portions where surface construction would be present (such as at construction laydown areas and areas with cut-and-cover construction activities) would occur. Detours and directional signage would be provided per the Construction Management Plan prepared for the Build Alternatives, ensuring that communities would remain accessible and flow of traffic around the construction area is maintained.

Construction activities would not change the character and cohesion of the EJ communities in the Affected Area, would not permanently isolate residential neighborhoods or community assets, and would not permanently alter the physical layout of the affected EJ communities. Community disruption could occur in the areas of the EJ communities that would have at-grade and above-grade construction activities, including underground portions where surface construction would be present. Residents and users of community facilities may experience temporary increases in construction-related noise, vibrations, and air quality. Construction activities would be temporarily visible in EJ communities in the Affected Area and could

temporarily affect the visual character of some community assets and residential neighborhoods. Implementation of Mitigation Measures VA-4 (Construction Screening), VA-5 (Construction Lighting), and NOI-8 (Noise Control Plan) would be implemented similarly throughout the EJ populations to reduce construction noise, vibration, and shield sensitive viewers from views of construction sites.

Construction activities would also comply with Metro's Green Construction Policy to reduce pollutant emissions. Although community disruptions may occur during construction, construction activities would be temporary and would occur along the Project corridor where at-grade and above-grade construction activities would occur, as well as the underground portions where surface construction would be present. Mitigation Measure COM-1 (Construction Outreach Plan) would be implemented equally throughout the EJ populations to minimize effects to EJ communities during construction, such as by maintaining access to community assets, businesses, and neighborhoods; maintaining traffic flow; and providing signage to maintain traffic flow, clearly mark detours, and to alert potential customers that businesses are open during construction.

Temporary construction-related community impacts would occur in Central City, Central City North, Southeast Los Angeles, Huntington Park, Cudahy, South Gate, Paramount, Bellflower, and Artesia. Central City, Southeast Los Angeles, Huntington Park, Paramount, Bellflower, and South Gate have the highest concentration of EJ populations while Central City North, Cudahy, Artesia has a higher concentration of non-EJ populations in comparison to the other communities. Temporary construction-related adverse effects would occur in EJ communities with higher concentrations of EJ populations, as well as comparable non-EJ populations. Construction-related adverse effects would not be concentrated in one EJ community. Temporary construction effects would be predominantly borne by EJ communities and the adverse effects in each EJ community would not result in appreciably more severe or greater in magnitude adverse effects in communities with higher concentrations of EJ populations than other areas. Mitigation measures would be similarly implemented in the affected EJ communities. With the implementation of mitigation, the Build Alternatives would not result in disproportionately high and adverse effects related to communities and neighborhoods would not occur in EJ communities in the EJ Affected Area.

7.4.5 Air Quality

7.4.5.1 Summary of Effects

Construction of the Build Alternatives, design options, and MSF site options would directly result in air quality impacts. Table 7.4 summarizes the construction related emissions for all criteria air pollutants for each of the Build Alternatives, design options and MSF site options, with comparison to applicable SCAQMD Regional Emissions Thresholds.

Table 7.4. Maximum Daily Regional Emissions during Construction

Build Alternative	Measured in lbs/day					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
Alternative 1	37.7	281.3	118.2	0.9	50.3	17.7
Alternative 2	37.7	281.3	118.2	0.9	50.3	17.7
Alternative 3	34.7	228.0	98.4	0.7	38.9	13.4

Build Alternative	Measured in lbs/day					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
Alternative 4	31.7	205.0	86.6	0.6	31.3	11.3
Design Option 1	37.7	281.3	118.2	0.9	50.3	17.7
Design Option 2	37.7	281.3	118.2	0.9	50.3	17.7
MSF Site Options	25.0	51.7	23.4	0.2	11.2	4.2
SCAQMD Threshold	75	550	100	150	150	55

Source: Metro, 2021h

Note: CO = carbon monoxide; lbs/day = pounds per day; NO_x = nitrogen oxide; PM_{2.5} = fine particulate matter of diameter less than 2.5 microns; PM₁₀ = respirable particulate matter of diameter less than 10 microns; ROG = reactive organic gases; SCAQMD = South Coast Air Quality Management District; SO_x = sulfur oxides.

Construction of Alternatives 1 and 2 and Design Options 1 and 2 would result in daily NO_x emissions that would exceed the SCAQMD threshold, even with implementation of Mitigation Measure AQ-1 (Vehicle Emissions), and potentially create an adverse effect related to emissions of criteria pollutants and ozone precursors. The exceedance in the NO_x threshold is due to unmitigated haul truck emissions. Alternatives 3 and 4 would result fewer maximum daily haul truck loads and maximum daily construction workers and, thus, would not produce emissions exceeding any regional mass daily threshold. As a result, no adverse effects related to air quality would occur during construction of Alternatives 3 and 4. Construction of the Paramount or Bellflower MSF site option would also not produce emissions exceeding any regional mass daily threshold, and no adverse effects would occur.

7.4.5.2 Environmental Justice Analysis

All construction activities would be conducted in accordance with the Metro Green Construction Policy and Mitigation Measure AQ-1 (Vehicle Emissions) would be implemented throughout the EJ populations to reduce emissions. However, temporary emissions would still exceed SCAQMD thresholds for Alternatives 1 and 2 and the design options. These effects are considered in the context of regional emissions. The Build Alternatives would not expose sensitive receptors to substantial localized pollutant concentrations, as construction activities would occur at various sites along the alignment and would not be concentrated at any given location. Furthermore, emissions resulting from worker vehicle and haul trips would not be localized at any given location. Temporary construction-related adverse effects would occur in EJ communities as well as areas with comparable non-EJ populations. After mitigation and in consideration of off-setting benefits, the Build Alternatives would not result in disproportionately high and adverse effects on the EJ communities in the Affected Area.

7.4.6 Noise and Vibration

7.4.6.1 Summary of Effects

The four general types of construction that would occur are at-grade construction, tunnel construction, cut-and-cover construction, and elevated guideway construction. Construction of the above-ground elements of the LRT guideways and MSF would use equipment similar to heavy-earth moving equipment, generators, cranes, pneumatic tools and other similar pieces of equipment. Construction activity for the underground portions of Alternatives 1 and 2 would include the use of a tunnel boring machine (TBM) or cut and cover for construction of the underground segments. The TBM would not be audible at above-ground sensitive

receivers. The TBM launch site or cut and cover activities would include equipment similar to the other above-ground activities.

Where construction activities would occur at-grade or above-grade along the Project corridor, construction noise levels would exceed FTA and local noise standards due to the intensive nature of LRT construction activities and the proximity of sensitive land uses to the Project corridor without mitigation measures. Mitigation Measure NOI-8 (Noise Control Plan) would require the contractor to prepare a noise control plan to be approved by Metro to reduce construction noise levels. It is anticipated that Mitigation Measure NOI-8 (Noise Control Plan) would reduce construction noise levels. However, construction noise would still likely exceed the FTA construction noise criteria and local standards. Therefore, with mitigation incorporated, impacts related to construction noise would remain adverse.

Vibration generating activities could result in noticeable levels of vibration but would largely occur within the rail ROWs and are unlikely to result in building damage. Equipment vibration could exceed the FTA vibration damage criteria and vibration annoyance criteria when conducted in close proximity to sensitive uses. Implementation of Mitigation Measures VIB-3 through VIB-7, which include a vibration control plan, minimizing the use of impact devices, drilling for building foundations, construction vibration limits, and construction monitoring, are anticipated to avoid construction vibration levels that would exceed the FTA construction impact criteria. Therefore, with mitigation incorporated, no adverse effects related to construction vibration would occur.

7.4.6.2 Environmental Justice Analysis

An adverse effect may occur on EJ communities if the Build Alternatives, design options, or MSF site options would result in a disproportionate construction noise or vibration impact concentrated in an EJ community. Construction noise and vibration impacts would be spread evenly along the at-grade and aerial portions of the alignment. Along the underground portions of the alignment, adverse noise and vibration effects would occur where surface construction is present, such as at construction laydown areas and areas with cut-and-cover construction activities.

Temporary construction effects of the Build Alternatives related to noise and vibration would be predominantly borne by EJ communities. Temporary construction adverse effects related to noise and vibrations would affect the EJ communities of Southeast Los Angeles, unincorporated Florence-Firestone, Huntington Park, Bell, Cudahy, South Gate, Paramount, Bellflower, Cerritos, and Artesia. Of these EJ communities, Huntington Park, Paramount, Bellflower, Southeast Los Angeles, and South Gate have the highest concentration of EJ populations. Artesia, Cerritos, Bellflower, and Paramount have a higher concentration of non-EJ populations compared to the other communities. Mitigation Measures NOI-8 (Noise Control Plan) and VIB-3 through VIB-7, which include a vibration control plan, minimizing the use of impact devices, drilling for building foundations, construction vibration limits, and construction monitoring, would be implemented to reduce construction noise and vibration impacts. Mitigation measures would be equally implemented throughout the Project corridor where impacts have been identified. Noise impacts would remain adverse and, thus, adverse effects on the EJ communities in the EJ Affected Area would occur.

The overall noise levels in the EJ Affected Area would be spread along the at-grade and aerial portions of the alignment, as well as the underground portions where surface construction is present. Although adverse noise and vibration effects would occur even with implementation

of mitigation measures, the severity of impacts would be largely uniform throughout the project corridor with EJ populations and non-EJ populations. Construction-related adverse effects would not be concentrated in one community. The construction noise and vibration impacts would not be appreciably more severe or greater in magnitude in areas with EJ populations than other areas with comparable non-EJ populations.

Mitigation measures would be similarly implemented throughout the project corridor where impacts have been identified. With the implementation of mitigation, the Build Alternatives would not result in disproportionately high and adverse effects related to noise and vibrations to EJ communities in the EJ Affected Area.

7.4.7 Parklands and Community Facilities

7.4.7.1 Summary of Effects

Construction of the Build Alternatives would require the termination of the lease agreement between Metro and the City of Paramount, which would remove approximately 20 (of over 300) on-site parking spaces used by park patrons. The reversion of the leased parking area does not require property acquisition within the Paramount Park boundary. Park recreational facilities and buildings would not be disturbed, and the general function of Paramount Park would remain unchanged. Construction sites would not be located on and would not permanently disrupt function or access to parklands, recreation facilities, bike facilities, and community facility properties. Therefore, adverse effects related to property acquisitions for construction or TCEs in the context of parklands and community facilities would not occur.

Parcels acquired for construction support sites would not be located on and would not permanently disrupt parklands, recreation facilities, bike facilities, and community facility properties. Mitigation Measures AQ-1 (Vehicle Emissions), NOI-8 (Noise Control Plan), VIB-3 (Vibration Control Plan), VIB-4 (Minimize the Use of Impact Devices), VIB-5 (Drilling for Business Foundations), VIB-6 (Construction Vibration Limits), VIB-7 (Construction Monitoring for Vibration), and COM-1 (Construction Outreach Plan) would be implemented to minimize adverse effects related to air quality, noise, vibration, and to maintain access and parking at parklands, recreational facilities, and bike facilities. As construction activities would be temporary, barriers around construction activities and staging areas would be removed upon completion of construction; and temporary street, lane, and bike path detours and closures would be returned to preconstruction conditions once construction is completed. With the implementation of mitigation, the Build Alternatives would not result in adverse effects related to parklands and community facilities during construction.

7.4.7.2 Environmental Justice Analysis

With the implementation of mitigation, the Build Alternatives would not result in adverse effects related to parklands and community facilities during construction. Therefore, with the implementation of mitigation, the Build Alternatives would not result in disproportionately high and adverse effects related to parklands and community facilities to EJ communities in the EJ Affected Area.

7.4.8 Summary of Environmental Justice Analysis

The Build Alternatives, design options, and MSF site options would result in temporary construction-related adverse effects pertaining to transportation, land use, acquisition and displacement, communities and neighborhoods, air quality, noise and vibration, and parklands and community facilities.

All applicable federal, state, and local regulations would be implemented during construction of the Project. Project measures would be implemented, and where adverse effects would occur, mitigation measures would be provided and implemented throughout all of the affected EJ communities. However, temporary adverse effects related to transportation, air quality, and noise and vibration on EJ communities would remain even after implementation of mitigation measures. Temporary adverse effects would affect EJ communities and non-EJ populations and are not focused within any single community. The impacts are not considered more severe or greater in magnitude areas with EJ populations versus comparable non-EJ populations along the project corridor. With the implementation of mitigation and with consideration to off-setting benefits, the Build Alternatives, design options, and MSF site options would not cause disproportionately high and adverse effects related to construction to the EJ communities in the EJ Affected Area.

8 PROJECT MEASURES AND MITIGATION MEASURES

8.1 Project Measures

8.1.1 Operations

Transportation: TR PM-10 (Pioneer Station Parking Access)

Visual and Aesthetics: VA PM-1 (Design Standards), VA PM-2 (Public Art), VA PM-3 (Landscaping), VA PM-4 (Landscaping Screening), VA PM-5 Landscaping at Bellflower MSF Site Option), VA PM-6 (Local Zoning Ordinances), and VA PM-7 (Lighting)

8.1.2 Construction

No additional project measures required to address EJ adverse effects.

8.2 Mitigation Measures

8.2.1 Operations

Transportation: TRA-1 through TRA-19, which are specific intersection modifications, TRA-20 (Transportation Management Plan(s)), TRA-21 (Parking Monitoring and Community Outreach), TRA-22 (Parking Mitigation Program [Permanent])

Land Use: LU-1 (Consistency with Bike Plans)

Visual and Aesthetics: VA-1 (Screening at Somerset Boulevard), VA-2 (Relocation of “Belle”)

Noise and Vibration: NOI-1 (Soundwalls), NOI-2 (Low Impact Frogs), NOI-3 (Wheel Squeal Noise Monitoring), NOI-4 (Crossing Signal Bells), NOI-5 Gate-Down-Bell-Stop Variance), NOI-6 (TPSS Noise Reduction), NOI-7 (Freight Track Relocation Soundwalls), VIB-1 (Ballast Mat or Resilient Rail Fasteners), VIB-2 (Low Impact Frogs)

8.2.2 Construction

Transportation: TRA-20 (Transportation Management Plan(s)) and TRA-23 (Loss of Parking [Construction])

Community and Neighborhood: COM-1 (Construction Outreach Plan)

Air Quality: AQ-1 (Vehicle Emissions)

Noise and Vibration: NOI-8 (Noise Control Plan), VIB-3 (Vibration Control Plan), VIB-4 (Minimize the Use of Impact Devices), VIB-5 (Drilling for Building Foundations), VIB-6 (Construction Vibration Limits), and VIB-7 (Construction Monitoring for Vibration)

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